South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

A G E N D A

MEETING, SEPTEMBER 7, 2018

A meeting of the South Coast Air Quality Management District Board will be held at 9:00 a.m., in the Auditorium at SCAQMD Headquarters, 21865 Copley Drive, Diamond Bar, California.

Questions About an Agenda Item

- The name and telephone number of the appropriate staff person to call for additional information or to resolve concerns is listed for each agenda item.
- In preparation for the meeting, you are encouraged to obtain whatever clarifying information may be needed to allow the Board to move expeditiously in its deliberations.

Meeting Procedures

- The public meeting of the AQMD Governing Board begins at 9:00 a.m. The Governing Board generally will consider items in the order listed on the agenda. However, any item may be considered in any order.
- After taking action on any agenda item not requiring a public hearing, the Board may reconsider or amend the item at any time during the meeting.

Questions About Progress of the Meeting

- During the meeting, the public may call the Clerk of the Board's Office at (909) 396-2500 for the number of the agenda item the Board is currently discussing.

The agenda and documents in the agenda packet will be made available upon request in appropriate alternative formats to assist persons with a disability. Disability-related accommodations will also be made available to allow participation in the Board meeting. Any accommodations must be requested as soon as practicable. Requests will be accommodated to the extent feasible. Please telephone the Clerk of the Boards Office at (909) 396-2500 from 7:00 a.m. to 5:30 p.m. Tuesday through Friday.

All documents (i) constituting non-exempt public records, (ii) relating to an item on the agenda, and (iii) having been distributed to at least a majority of the Governing Board after the agenda is posted, are available prior to the meeting for public review at the South Coast Air Quality Management District Clerk of the Board's Office, 21865 Copley Drive, Diamond Bar, CA 91765.

The Agenda is subject to revisions. For the latest version of agenda items herein or missing agenda items, check the District's web page (www.aqmd.gov) or contact the Clerk of the Board, (909) 396-2500. Copies of revised agendas will also be available at the Board meeting.

CALL TO ORDER

- Pledge of Allegiance
- Opening Comments: William A. Burke, Ed.D., Chair
  Other Board Members
  Wayne Nastri, Executive Officer
- Swearing in of Newly Appointed Board Member V. Manuel Perez **Burke**

Staff/Phone (909) 396-

CONSENT CALENDAR (Items 1 through 19)

Note: Consent Calendar items held for discussion will be moved to Item No. 20

1. Approve Minutes of July 6, 2018 Board Meeting **Garzaro/2500**

2. Set Public Hearing October 5, 2018 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations **Nastri/3131**

   Certify Final Subsequent Environmental Assessment and Amend Rule 2001 – Applicability and Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx) **Nakamura/3105**

   On January 5, 2018, the Board adopted amendments to Rules 2001 and 2002 to initiate the transition of NOx RECLAIM to a command-and-control regulatory structure. To support ongoing efforts for transitioning RECLAIM facilities, PAR 2001 would add a provision to allow facilities to opt-out of RECLAIM if certain criteria are met. PAR 2002 would provide an option, for facilities that receive an initial determination notification, to stay in RECLAIM for a limited time while complying with applicable command-and-control requirements. PAR 2002 would also establish a provision that precludes any former RECLAIM facility from obtaining offsets from the SCAQMD internal bank. PAR 2002 also clarifies existing language and removes obsolete provisions, including requirements to report infinite year block (IYB) NOx RTC prices to the Board when the price falls below the minimum threshold. This action is to adopt the Resolution: 1) Certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 2001 – Applicability and Proposed Amended Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx); and 2) Amending Rule 2001 – Applicability and Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx). (Reviewed: Stationary Source Committee, July 20, 2018)

Budget/Fiscal Impact

3. Recognize Funds, Execute and Amend Agreements for Installation and Maintenance of Air Filtration Systems, Reimburse General Fund for Administrative Costs, and Purchase Electric School Buses **Miyasato/3249**

U.S. EPA is executing two Supplemental Environmental Project (SEP) agreements and has asked SCAQMD to act as the SEP Implementer to install and maintain air filtration systems at schools. These actions are to recognize up to $575,000 into the Air Filtration Fund (75). These actions are to also execute agreements to install and maintain air filtration systems in an amount cumulatively not to exceed $2,035,848, from the Air Filtration Fund (75), the LADWP Variance Special Revenue Fund (69), and the LADWP Settlement Projects Fund (38); execute or amend access agreements with local school districts; amend contracts to purchase additional filters using unspent administrative funds; and reimburse the General Fund for administrative costs up to $28,750 to administer the SEPs. Finally, these actions are to execute a contract to purchase electric school buses in an amount not to exceed $427,460 from the LADWP Variance Special Revenue Fund (69). (Reviewed: Technology Committee, July 20, 2018; Recommended for Approval)

4. Recognize Revenue from CARB for Carl Moyer Program and EFMP; Transfer and Appropriate Funds, Amend Contract for Implementing Assistance and Reimburse General Fund for Administrative and Outreach Costs for EFMP **Minassian/2641**

CARB has allocated $2,674,384 to SCAQMD under the Voluntary NOx Remediation Measure (NRM) Funding Program. These actions are to recognize $2,674,384 into the Carl Moyer Program Fund (32) and execute a Memorandum of Agreement with CARB for implementation of the NRM Funding Program. Since 2015, SCAQMD has been implementing an Enhanced Fleet Modernization Program (EFMP), branded as Replace Your Ride. For FY 2017-18, CARB allocated SCAQMD an additional $16.4 million in funds to continue implementation of EFMP. These actions are to recognize up to $16.4 million for EFMP, accept terms and conditions of the grant awards, approve vouchers or other alternative mobility options until all available funds are exhausted, amend a contract for case management and vehicle remote sensing activities in support of EFMP in an amount not to exceed $550,000 from the HEROS II Special Revenue Fund (56), transfer and appropriate up to $65,500 to Science & Technology Advancement's FY 2018-19 or 2019-20 Budget, and reimburse the General Fund for administrative and outreach costs necessary to implement EFMP. (Reviewed: Technology Committee, July 20, 2018; Recommended for approval)

5. Amend Contract Awards for Mobile Source Emissions Reduction Projects **Minassian/2641**

In November 2017, the Board approved contract awards for mobile source emissions reduction projects evaluated under the Carl Moyer Program Guidelines and funded by AB 134 Community Air Protection funds. Subsequently, in April 2018, CARB approved a supplement to the Carl Moyer Program Guidelines (Guidelines Supplement) for projects funded specifically under the Community Air Protection Program. The Guidelines Supplement is intended to facilitate immediate emissions reductions in disadvantaged and low-income communities. The Guidelines Supplement preserves the statutory requirements of the Carl Moyer Program, including cost-effectiveness and surplus emissions reductions, while broadening project eligibility and providing higher grant amounts for Community Air Protection projects. After applying the Guidelines Supplement to the AB 134 Board-approved projects, staff determined several projects in disadvantaged and low-income communities now qualify for higher grant amounts. This action is to amend contract awards for mobile source emissions reduction projects adding up to $4,488,282 for certain projects originally approved from the Community Air Protection AB 134 Fund (77). (Reviewed: Technology Committee, July 20, 2018; Recommended for Approval)

6. Appropriate Funds, and Issue RFP to Assess Potential Cost and Economic Impacts of Proposed Facility-Based Mobile Source Control Measures on Warehouses and Distribution Centers **Fine/2239**

On May 4, 2018, the Board directed staff to pursue development of facility-based emission reduction strategies for warehouses and distribution centers including through a potential rule. The Board further directed staff to provide regular progress reports, including an assessment of potential economic impacts. To assist with this assessment, staff is proposing to release an RFP to solicit bids to estimate a range of potential costs based on hypothetical rule scenarios and the resultant impacts on freight operation, such as potential cargo diversion from local warehouses to facilities in adjacent regions. This action is to appropriate up to $200,000 from the General Fund Undesignated (Unassigned) Fund Balance into Planning, Rule Development and Area Sources' FY 2018-19 Budget. This action is to also issue an RFP to solicit qualified bidders to assess potential cost and economic impacts of a potential rule on local warehouses. (Reviewed: Mobile Source Committee, July 20, 2018; Recommended for Approval)

7. Appropriate Funds and Execute Contract for Planning, Organizing, and Facilitating SCAQMD's Martin Luther King, Jr. Day of Service Forum and Cesar Chavez Day of Remembrance **Alatorre/3122**

On June 1, 2018, the Board approved release of an RFP to solicit proposals for planning, organizing, and facilitating two annual air quality events. Three proposals were submitted to the Administrative Committee for consideration at its July 13, 2018 meeting. After the Committee interviewed representatives of each of the firms, Lee Andrews Group was selected for recommendation to the full Board, and the Committee recommended a three-year contract. This action is to appropriate funding to Legislative, Public Affairs & Media's FY 2018-19 Budget and execute a three-year contract with Lee Andrews Group in an amount not to exceed $150,000 per year. (Reviewed: Administrative Committee, July 13, 2018; Recommended for Approval)

8. Issue RFP for Legislative Representation in Washington, D.C. **Alatorre/3122**

The current contracts for legislative representation in Washington, D.C. expire on January 14, 2019. This action is to issue an RFP for legislative representation and consulting services for SCAQMD in Washington, D.C. for 2019. The RFP will also indicate that the contract(s) may be extended for up to two additional one-year terms. (Reviewed: Administrative Committee, July 13, 2018; Recommended for Approval)

9. Issue Purchase Order for Ingres Relational Database Management System Software Support **Moskowitz/3329**

The Ingres Relational Database Management System is used for the implementation of the Central Information Repository database. This database is used by most enterprise-level software applications at the SCAQMD and currently supports a suite of client/server and web-based applications known collectively as the Clean Air Support System (CLASS). The CLASS applications are used to support all of the SCAQMD's core activities. Licensing maintenance, and support for this software expires on November 29, 2018. This action is to issue a purchase order to Actian Corporation for a total amount not to exceed $225,341. Funds for this expense are included in the FY 2018-19 Budget. (Reviewed: Administrative Committee, July 13, 2018; Recommended for Approval)

10. Amend Classification of Career Development Intern, and Adopt New Classification of Source Testing Manager **Olvera/2309**

The Career Development Intern program provides young adults who have transitioned from the foster care system with on-the-job training and experience, to prepare them for future job opportunities. This action is to amend the classification to expand the eligibility requirements to reach a wider pool of young adults in similar circumstances, and to increase the maximum term of these internships. This action is also to add the new classification of Source Testing Manager; adopt the class specification; and adopt the Resolution amending the Salary Resolution. Funding for the Source Testing Manager position was included in the FY 2018-19 Budget. (Reviewed: Administrative Committee, July 13, 2018; Recommended for Approval)

11. Approve Contract Awards and Modifications and Approve Fund Transfer for Miscellaneous and Direct Expenditures Costs in FY 2018-19 as Approved by MSRC **McCallon**

As part of their FYs 2016-18 Work Program, the MSRC approved new contracts under the Local Government Partnership, County Transportation Commission Partnership, and Major Event Center Transportation Programs. The MSRC also approved new contracts under the Natural Gas Infrastructure Program as part of their FYs 2016-18 and 2018-20 Work Programs, a contract value increase for enhancements to the MSRC website as part of their FYs 2018-20 Work Program, and a replacement contract as part of their FYs 2012-14 Work Program. Additionally, every year the MSRC adopts an Administrative Budget which includes transference of funds to the SCAQMD Budget to cover administrative expenses. At this time the MSRC seeks Board approval of the fund transfer and the contract awards and modifications as part of the FYs 2012-14, 2016-18, and 2018-20 Work Programs. (Reviewed: Mobile Source Air Pollution Reduction Review Committee, August 16, 2018; Recommended for Approval)

Items 12 through 19 - Information Only/Receive and File

12. Legislative, Public Affairs, and Media Report **Alatorre/3122**

This report highlights the June and July 2018 outreach activities of the Legislative, Public Affairs and Media Office, which includes: Major Events, Community Events/Public Meetings, Environmental Justice Update, Business Assistance, Media Relations and Outreach to Business and Federal, State, and Local Government. (No Committee Review)

13. Hearing Board Report **Prussack/2500**

This reports the actions taken by the Hearing Board during the period of June 1 through July 31, 2018. (No Committee Review)

14. Civil Filings and Civil Penalties Report **Gilchrist/3459**

This reports the monthly penalties from June 1 through June 30, 2018, and legal action filed by the General Counsel's Office from June 1 through June 30, 2018. An Index of District Rules is attached with the penalty report. (Reviewed: Stationary Source Committee, July 20, 2018)

15. Lead Agency Projects and Environmental Documents Received by SCAQMD **Nakamura/3105**

This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between June 1, 2018 and July 31, 2018, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA. (Reviewed: Mobile Source Committee, July 20, 2018 for the June 1 to June 30, 2018 portion of the report; the July 1 to July 31, 2018 portion of the report had no committee review)

16. RFPs Scheduled for Release in September **Jain/2804**

This report summarizes the RFPs for budgeted services over $75,000 scheduled to be released for advertisement for the month of September. (Reviewed: Administrative Committee, July 13, 2018)

17. Rule and Control Measure Forecast **Fine/2239**

This report highlights SCAQMD rulemaking activities and public workshops potentially scheduled for 2018. (No Committee Review)

18. Status Report on Major Ongoing and Upcoming Projects for Information Management **Moskowitz/3329**

Information Management is responsible for data systems management services in support of all SCAQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects. (Reviewed: Administrative Committee, July 13, 2018)

19. FY 2017-18 Contract Activity **Jain/2804**

This report lists the number of contracts let during FY 2017-18, the respective dollar amounts, award type, and the authorized contract signatory for the SCAQMD. This report includes the data provided in the March 2018 report covering contract activity for the first six months of FY 2017-18. (No Committee Review)

20. Items Deferred from Consent Calendar

BOARD CALENDAR

21. Administrative Committee (Receive & File) **Chair: Burke** **Nastri/3131**

22. Legislative Committee **Chair: Mitchell** **Alatorre/3122**

Receive and file; and take the following actions as recommended:

Agenda Item	Recommendation
Proposed Sales Tax Increase Legislative Concept for Approval	Sponsor in Concept

23.	Mobile Source Committee (Receive & File)	**Chair: Parker**	**Fine/2239**
24.	Stationary Source Committee – July (Receive & File)	**Chair: Benoit**	**Tisopulos/3123**
25.	Stationary Source Committee – August (Receive & File)	**Chair: Benoit**	**Tisopulos/3123**
26.	Technology Committee (Receive & File)	**Chair: Buscaino**	**Miyasato/3249**
27.	Mobile Source Air Pollution Reduction Review Committee (Receive & File)	**Board Liaison: Benoit**	**Minassian/2641**
28.	California Air Resources Board Monthly Report (Receive & File)	**Board Rep: Mitchell**	**Garzaro/2500**

Staff Presentation/Board Discussion

29. Status Report on Regulation XIII – New Source Review **Tisopulos/3123**

This report presents the federal Final Determination of Equivalency for January 2016 through December 2016. As such, it provides information regarding the status of Regulation XIII – New Source Review, in meeting federal NSR requirements and shows that SCAQMD's NSR program is in final compliance with applicable federal requirements from January 2016 through December 2016. (Reviewed: Stationary Source Committee, August 17, 2018)

30. Update on Development of Facility-Based Mobile Source Measures in 2016 AQMP **Rees/2856**

At the May 2018 Board meeting, the Board considered staff's recommendations for developing the Facility-Based Mobile Source Measures adopted in the 2016 AQMP. The staff recommendations on airports, marine ports, rail yards, and warehouses were approved with additional modifications provided by the Board. For new and redevelopment projects, the Board directed staff to continue to work with stakeholders, further analyze the potential impacts of any regulatory measure, and report back quarterly to the Board before beginning any formal rulemaking process. This staff presentation will provide a summary of activities since May on this measure, and all other Facility-Based Mobile Source Measures, including progress on the development of Memoranda of Understanding with marine ports and commercial airports, and the development of voluntary and regulatory strategies for rail yards and warehouses. (No Committee Review)

PUBLIC HEARINGS

31. Certify Final Environmental Assessment and Amend Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations **Nakamura/3105**

Rule 1469 currently establishes requirements to control hexavalent chromium from electroplating and chromic acid anodizing operations. PAR 1469 proposes new requirements to control hexavalent chromium-containing tanks that are currently not regulated. In addition, PAR 1469 establishes requirements for building enclosures, housekeeping and best management practices, periodic source testing, and parameter monitoring of pollution control equipment. PAR 1469 includes provisions for a revised chemical fume suppressant certification process that further considers toxicity and exposure, and provisions to encourage the elimination of hexavalent chromium in Rule 1469 processes. Additional proposed amendments are incorporated to align Rule 1469 with the U.S. EPA National Emission Standards for Hazardous Air Pollutants for Chromium Electroplating. This action is to adopt the Resolution: 1) Certifying the Final Environmental Assessment for Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations; and 2) Amending Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations. (Reviewed: Stationary Source Committee, November 17, 2017, February 16, March 16, April 20 and July 20, 2018)

32. Receive and File 2017 Annual Report on AB 2588 Program; and Approve Updates to Facility Prioritization Procedure, Supplemental Guidelines for AB 2588 Program, and Guidelines for Participating in Rule 1402 Voluntary Risk Reduction Program **Nakamura/3105**

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) requires local air pollution control districts to prepare an annual report. The report provides the public with information regarding SCAQMD programs to reduce emissions of toxic air contaminants. This annual update describes the various activities in 2017 to satisfy the requirements of AB 2588 and Rule 1402, such as quadrennial emissions reporting and prioritization, the preparation and review of Air Toxics Inventory Reports, Health Risk Assessments, Voluntary Risk Reduction Plans, Risk Reduction Plans, and additional SCAQMD activities related to air toxics. Staff is also updating the Facility Prioritization Procedure, the AB 2588 and Rule 1402 Supplemental Guidelines, and the Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program to update information and provide more clarity for the implementation of AB 2588 and Rule 1402. These actions are to receive and file the 2017 Annual Report on the AB 2588 Air Toxics “Hot Spots” Program, and to approve revisions to: 1) Facility Prioritization Procedure for the AB 2588 Program; 2) AB 2588 and Rule 1402 Supplemental Guidelines; and 3) Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program. (Reviewed: Stationary Source Committee, June 15, 2018)

PUBLIC COMMENT PERIOD – (Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3)

BOARD MEMBER TRAVEL – (*No Written Material*)

Board member travel reports have been filed with the Clerk of the Boards, and copies are available upon request.

CONFLICT OF INTEREST DISCLOSURES – *(No Written Material)*

Under the approval authority of the Executive Officer, the District will enter into a contract modification with BNSF Railway Company (C172961). Governing Board Member Dwight Robinson has a financial interest in BNSF Railway Company, which qualifies for the remote interest exception of Section 1090 of the California Government Code. Councilmember Robinson abstained from any participation in the making of the contract modification.

Under the approval authority of the Executive Officer the District will enter into contract modifications with University of California Riverside/CE-CERT (C173311 & C173491). The District will also enter into a vehicle lease agreement with Honda of Pasadena (C182801). University of California Riverside/CE-CERT and American Honda Motor Company are potential sources of income for Governing Board Member Joseph Lyou which qualify for the remote interest exception of Section 1090 of the California Government Code. Dr. Lyou abstained from any participation in the making of the contract modifications or vehicle lease agreement.

CLOSED SESSION - (*No Written Material*) **Gilchrist/3460**

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

It is necessary for the Board to recess to closed session pursuant to Government Code sections 54956.9(a) and 54956.9(d)(1) to confer with its counsel regarding pending litigation which has been initiated formally and to which the SCAQMD is a party. The actions are:

- In the Matter of SCAQMD v. Aerocraft Heat Treating Co., Inc. and Anaplex Corp., SCAQMD Hearing Board Case No. 6066-1 (Order for Abatement);
- SCAQMD v. Anaplex, Los Angeles Superior Court Case No. BC608322 (Paramount Hexavalent Chromium);
- In the Matter of SCAQMD v. Browning-Ferris Industries of California, Inc. dba Sunshine Canyon Landfill, SCAQMD Hearing Board Case No. 3448-14;
- Communities for a Better Environment v. SCAQMD, Los Angeles Superior Court Case No. BS161399 (RECLAIM);
- Communities for a Better Environment v. South Coast Air Quality Management District, Los Angeles Superior Court Case No. BS169841; Safe Fuel and Energy Resources California, et al. v. South Coast Air Quality Management District, Los Angeles Superior Court Case No. BS169923 (Tesoro);
- People of the State of California, ex rel. SCAQMD v. Exide Technologies, Inc., Los Angeles Superior Court Case No. BC533528;
- In re: Exide Technologies, Inc., U.S. Bankruptcy Court, District of Delaware, Case No. 13-11482 (KJC) (Bankruptcy Case);

- Fast Lane Transportation, Inc., et al. v. City of Los Angeles, et al., Court of Appeal, First Appellate District, Case No. A148993 (formerly Contra Costa County Superior Court Case No. MSN14-0300) (SCIG);

- Johnson Controls, Inc. v. SCAQMD, Los Angeles Superior Court Case No. BS173108;

- In the Matter of SCAQMD v. Southern California Gas Company, Aliso Canyon Storage Facility, SCAQMD Hearing Board Case No. 137-76 (Order for Abatement); People of the State of California, ex rel SCAQMD v. Southern California Gas Company, Los Angeles Superior Court Case No. BC608322; Judicial Council Coordinated Proceeding No. 4861;

- South Coast Air Quality Management District v. Top Shelf Consulting LLC, Los Angeles Superior Court, Case No. BC676606; In re: Top Shelf Consulting, LLC, U.S. Bankruptcy Court, Central District of California (Los Angeles), Case No. 2:18-bk-11975-ER (Bankruptcy case);

- In the Matter of SCAQMD v. Torrance Refining Company, LLC, SCAQMD Hearing Board Case No. 6060-5 (Order for Abatement); and

- State of California, et al. v. U.S. EPA, et al., U.S. Court of Appeals, D.C. Circuit, Case No. 18-1114 (mid-term evaluation for light-duty vehicles).

CONFERENCE WITH LEGAL COUNSEL – INITIATING LITIGATION

It is also necessary for the Board to recess to closed session pursuant to Government Code section 54956.9(a) and 54956.9(d)(4) to consider initiation of litigation (four cases).

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Also, it is necessary for the Board to recess to closed session pursuant to Government Code section 54956.9(d)(2) to confer with its counsel because there is a significant exposure to litigation against the SCAQMD (one case)—Letter from Steven J. Olson, O'Melveny & Myers LLP, on behalf of ExxonMobil Corporation, dated August 22, 2018.

ADJOURNMENT

PUBLIC COMMENTS

Members of the public are afforded an opportunity to speak on any agenda item before consideration of that item. Please notify the Clerk of the Board, (909) 396-2500, if you wish to do so. All agendas are posted at SCAQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, at least 72 hours in advance of the meeting. At the end of the agenda, an opportunity is also provided for the public to speak on any subject within the SCAQMD's authority. Speakers will be limited to a total of three (3) minutes for the Consent Calendar and Board Calendar and three (3) minutes or less for other agenda items.

Note that on items listed on the Consent Calendar and the balance of the agenda any motion, including action, can be taken (consideration is not limited to listed recommended actions). Additional matters can be added and action taken by two-thirds vote, or in the case of an emergency, by a majority vote. Matters raised under the Public Comment Period may not be acted upon at that meeting other than as provided above.

Written comments will be accepted by the Board and made part of the record, provided 25 copies are presented to the Clerk of the Board. Electronic submittals to cob@aqmd.gov of 10 pages or less including attachment, in MS WORD, PDF, plain or HTML format will also be accepted by the Board and made part of the record if received no later than 5:00 p.m., on the Tuesday prior to the Board meeting.

ACRONYMS

AQ-SPEC = Air Quality Sensor Performance Evaluation Center
AQIP = Air Quality Investment Program
AQMP = Air Quality Management Plan
AVR = Average Vehicle Ridership
BACT = Best Available Control Technology
Cal/EPA = California Environmental Protection Agency
CARB = California Air Resources Board
CEMS = Continuous Emissions Monitoring Systems
CEC = California Energy Commission
CEQA = California Environmental Quality Act
CE-CERT =College of Engineering-Center for Environmental Research and Technology
CNG = Compressed Natural Gas
CO = Carbon Monoxide
CTG = Control Techniques Guideline
DOE = Department of Energy
EV = Electric Vehicle
FY = Fiscal Year
GHG = Greenhouse Gas
HRA = Health Risk Assessment
LEV = Low Emission Vehicle
LNG = Liquefied Natural Gas
MATES = Multiple Air Toxics Exposure Study
MOU = Memorandum of Understanding
MSERCs = Mobile Source Emission Reduction Credits
MSRC = Mobile Source (Air Pollution Reduction) Review Committee
NATTS =National Air Toxics Trends Station
NESHAPS = National Emission Standards for Hazardous Air Pollutants
NGV = Natural Gas Vehicle
NOx = Oxides of Nitrogen
NSPS = New Source Performance Standards
NSR = New Source Review
OEHHA = Office of Environmental Health Hazard Assessment
PAMS = Photochemical Assessment Monitoring Stations
PAR = Proposed Amended Rule
PEV = Plug-In Electric Vehicle
PHEV = Plug-In Hybrid Electric Vehicle
PM10 = Particulate Matter $\leq$ 10 microns
PM2.5 = Particulate Matter $\leq$ 2.5 microns
PR = Proposed Rule
RECLAIM=Regional Clean Air Incentives Market
RFP = Request for Proposals
RFQ = Request for Quotations
SCAG = Southern California Association of Governments
SIP = State Implementation Plan
SOx = Oxides of Sulfur
SOON = Surplus Off-Road Opt-In for NOx
SULEV = Super Ultra Low Emission Vehicle
TCM = Transportation Control Measure
ULEV = Ultra Low Emission Vehicle
U.S. EPA = United States Environmental Protection Agency
VOC = Volatile Organic Compound
ZEV = Zero Emission Vehicle

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the July 6, 2018 meeting.

RECOMMENDED ACTION:
Approve Minutes of the July 6, 2018 Board Meeting.

Denise Garzaro
Clerk of the Boards

DG

FRIDAY, JULY 6, 2018

Notice having been duly given, the regular meeting of the South Coast Air Quality Management District Board was held at District Headquarters, 21865 Copley Drive, Diamond Bar, California. Members present:

William A. Burke, Ed.D., Chairman
Speaker of the Assembly Appointee

Dr. Clark E. Parker, Sr., Vice Chairman
Senate Rules Committee Appointee

Supervisor Marion Ashley
County of Riverside

Council Member Michael A. Cacciotti
Cities of Los Angeles County – Eastern Region

Dr. Joseph K. Lyou
Governor's Appointee

Mayor Pro Tem Judith Mitchell
Cities of Los Angeles County – Western Region

Supervisor Shawn Nelson (Arrived at 9:20 a.m.)
County of Orange

Council Member Dwight Robinson
Cities of Orange County

Supervisor Janice Rutherford
County of San Bernardino

Supervisor Hilda L. Solis
County of Los Angeles

Members absent:

Mayor Ben Benoit
Cities of Riverside County

Council Member Joe Buscaino
City of Los Angeles

Mayor Larry McCallon
Cities of San Bernardino County

CALL TO ORDER: Chairman Burke called the meeting to order at 9:05 a.m.

- Pledge of Allegiance: Led by Chairman Burke

- Opening Comments

Mr. Nastri noted that the public hearing for proposed Rule 1469 was previously set by the Board for the September 7, 2018 Board meeting. He added that staff was requesting that Item 27 be pulled from consideration to provide time for additional public input.

Dr. Lyou acknowledged the presence of the 2018 SCAQMD student interns and thanked them for their efforts.

CONSENT CALENDAR

1. Approve Minutes of June 1, 2018 Board Meeting

Budget/Fiscal Impact

2. Approve Memorandum of Agreement Between CARB and SCAQMD to Implement and Enforce Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities and Recognize Revenue

3. Recognize Revenue from Participating Members of California Natural Gas Vehicle Partnership, Transfer Funds for SCAQMD's Membership, and Approve Budget and Expenditures for Activities and Projects during FYs 2018-19 and 2019-20

4. Recognize and Transfer Revenue and Execute Contract to Develop and Demonstrate Zero Emission Trucks and EV Infrastructure

5. Execute and Amend Contracts for Technical Assistance for Advanced, Low and Zero Emissions Mobile and Stationary Source Technologies and Implementation of Incentive Programs

6. Recognize Revenue and Transfer and Appropriate Funds for Air Monitoring Programs, and Issue Solicitations and Purchase Orders for Air Monitoring and Laboratory Equipment Plus One Vehicle

7. Authorize Executive Officer to Enter into CARB AB 197 Grant Agreement, Recognize Revenue, and Appropriate Funds to Support SCAQMD's Annual Emissions Reporting Software

8. Transfer and Appropriate Funds and Execute Contract for Short- and Long-Term Systems Development Maintenance and Support Services

9. Approve Contract Awards and Modification as Approved by MSRC

Items 10 through 16 - Information Only/Receive and File

10. Legislative, Public Affairs and Media Report

11. Report to Legislature and CARB on SCAQMD's Regulatory Activities for Calendar Year 2017

12. Hearing Board Report

13. Civil Filings and Civil Penalties Report

14. Lead Agency Projects and Environmental Documents Received by SCAQMD

15. Rule and Control Measure Forecast

16. Status Report on Major Ongoing and Upcoming Projects for Information Management

Supervisor Ashley announced his abstention on Item No. 2 because of a potential conflict of interest; on Item No. 3 because of campaign contributions from CR&R, Inc. and Waste Management; and on Item No. 9 because of campaign contributions from CR&R, Inc. and Waste Management, and because the County of Riverside is one of the recipients under Item No. 9.

Dr. Lyou announced his abstention on Item No. 3 because Clean Energy Fuels, CR&R, Inc., Sempra Energy Utilities, Trillium CNG, Waste Management, Inc. and Gladstein, Neandross & Associates are potential sources of income to him; Item No. 4 because San Pedro Bay Port Complex is potential source of income to him; Item No. 5 because Gladstein, Neandross & Associates, Sonoma Technology, Inc. and University of California Riverside are potential sources of income to him; and Item No. 9 because County of Riverside and City of Los Angeles are potential sources of income to him.

Supervisor Rutherford announced her abstention on Item No. 3 because of campaign contributions from CR&R, Inc.

Mayor Pro Tem Mitchell noted that she is a Board Member of the CARB which is involved with Item Nos. 2 and 7.

Agenda Item Nos. 2, 3, 4, 5, 7 and 9 were withheld for comment and discussion.

MOVED BY SOLIS, SECONDED BY CACCIOTTI, AGENDA ITEMS 1, 6 AND 8 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES:	Ashley, Burke, Cacciotti, Lyou, Mitchell, Parker, Robinson, Rutherford and Solis
NOES:	None
ABSENT:	Benoit, Buscaino, McCallon and Nelson

17. Items Deferred from Consent Calendar

2. Approve Memorandum of Agreement Between CARB and SCAQMD to Implement and Enforce Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities and Recognize Revenue

Dr. Lyou left the room during the discussion of Item 2. (He remained out of the room for the discussion of Items 3, 4, 5, 7 and 9.)

(Supervisor Nelson arrived at 9:20 a.m.)

Harvey Eder, Public Solar Power Coalition, expressed concerns about importing non-renewable natural gas, and stressed that solar should be used more widely.

Council Member Cacciotti asked staff what type of facilities are included in this agreement and how often they will be inspected.

Mr. Nastri responded that the agreement includes smaller oil derricks and independent oil facilities. He added that the inspection schedule will vary depending on the size of the facility, but they will likely be inspected every one to three years.

MOVED BY CACCIOTTI, SECONDED BY SOLIS, AGENDA ITEM 2 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: Burke, Cacciotti, Mitchell, Nelson, Parker, Robinson, Rutherford and Solis

NOES: None

ABSTAIN: Ashley

ABSENT: Benoit, Buscaino, Lyou and McCallon

3. Recognize Revenue from Participating Members of California Natural Gas Vehicle Partnership, Transfer Funds for SCAQMD's Membership, and Approve Budget and Expenditures for Activities and Projects during FYs 2018-19 and 2019-20

Supervisor Ashley left the room during the discussion of Item 3.

Council Member Robinson noted that he is a member of the California Natural Gas Vehicle Partnership which is involved with Item 3.

Mr. Eder expressed concerns about natural gas and recommended funding for solar implementation and conversion.

MOVED BY NELSON, SECONDED BY CACCIOTTI, AGENDA ITEM 3 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: Burke, Cacciotti, Mitchell, Nelson, Parker, Robinson and Solis

NOES: None

ABSTAIN: Ashley, Lyou and Rutherford

ABSENT: Benoit, Buscaino and McCallon

4. Recognize and Transfer Revenue and Execute Contract to Develop and Demonstrate Zero Emission Trucks and EV Infrastructure

Mr. Eder urged support for solar technologies and recommended hearings be held to discuss the viability of solar.

Jessica Durrum, Los Angeles Alliance for a New Economy, asked that fleet partners for the proposed project be disclosed and stressed the importance of including conditions in all agreements that require full compliance with all laws. She referenced a report that documented the financial hardships experienced by truck drivers who participated in a lease-to-own program sponsored by Daimler at the Port of Long Beach. She expressed concern that Daimler may be partnering with NFI who recently acquired CalCartage, who has violated labor laws. (Submitted Written Comments)

Mayor Pro Tem Mitchell asked staff to respond to the speaker's inquiry about fleet partners for the project.

Mr. Nastri explained that Daimler will build the trucks and partner with Penske and NFI to demonstrate the trucks. He asked staff to provide additional information.

Dr. Matt Miyasato, DEO/Science and Technology Advancement, explained that NFI will be demonstrating trucks out of their Chino facility, which is not run by CalCartage.

Mayor Pro Tem Mitchell noted that CARB and the state of California strongly support electrification of the Ports of Los Angeles and Long Beach. She noted the importance of meeting the goals set forth in the AQMP and supporting demonstration projects that promote heavy-duty electric trucks. She recognized the hardships experienced by truck drivers and the importance of incentive programs.

Bayron Gilchrist, General Counsel, explained that the contracts could be drafted to include provisions that require compliance with federal and state laws.

Supervisor Solis expressed concern with supporting a project where a company that is known to have violated labor laws will benefit financially.

Chairman Burke asked staff about the potential to continue the item so that further discussion by the Technology Committee could occur.

Dr. Miyasato explained that it is important to proceed with the project as the development of this technology could assist with meeting federal attainment standards. He noted that this is the first major equipment

manufacturer to engage in a heavy-duty electric truck project. He added that the fleet partners will simply operate the trucks to accumulate data for Daimler.

Mr. Nastri noted that if it was the Board's desire, the item could be heard at the July Technology Committee meeting and return to the Board for consideration in September.

Rossmery Zayas, CBE Youth Organizer, expressed concerns about subsidies being awarded to companies who are in violation of safety and labor laws for warehouse and truck drivers at the ports.

Don MacAllister, Electric Vehicle Network, Inc., spoke in favor of the project and the importance of moving forward with zero-emission trucks. He noted that his company, in partnership with University of California Irvine, has developed a 30-second battery swap system for zero-emission trucks. He added that they will also be conducting a demonstration project at the port.

Council Member Cacciotti asked if staff has investigated this technology.

Dr. Miyasato explained that staff met with Mr. MacAllister regarding the battery systems application for small SUVs, but were not made aware of heavy-duty truck applications. He noted the importance of getting original equipment manufacturers engaged as they have the ability to produce a large number of trucks in a short amount of time to help to meet attainment goals. One of the primary goals of the project is to collect data related to battery size, capacity, range, charging infrastructure and cost benefit.

Celene Perez, Warehouse Worker Resource Center, expressed concern that NFI is a partner on the project and noted numerous labor law violations by NFI.

Council Member Robinson noted that Council Member Buscaino expressed support for the project and the involvement of Daimler Trucks. He added his support for the project noting that Daimler is one of the largest truck engine manufacturers and the District has been trying to engage Daimler for a number of years. He urged support for moving forward as quickly as possible and noted the significant efforts that are required to reduce emissions and meet attainment goals.

Mayor Pro Tem Mitchell noted that staff will continue to work on the legal concerns and clarified that this is a demonstration project and funds will not be going to truck drivers as an incentive. She noted the high priority to move toward zero-emission technology at the Ports.

Erik Neandross, representing Daimler Trucks North America, explained that Daimler seeks to get trucks on the road by the end of 2018 which is a very aggressive schedule. He added that the proposal provides that fifteen trucks will be allocated to Penske and five to NFI and, if necessary, they could allocate all trucks to Penske. He clarified that the funds would go to Daimler to build and deliver the trucks and the fleet partners would simply drive and test the trucks to provide data to Daimler.

Councilmember Cacciotti urged support for moving forward with the project and setting conditions in the contract that address the labor and safety violations that have been noted.

Mr. Gilchrist explained that staff could report to the Technology Committee with the proposed contractual language.

Mayor Pro Tem Mitchell moved to approve Item 4 and Council Member Cacciotti seconded with the condition that all vehicles be designated to Penske in the event the concerns with NFI cannot be resolved.

Dr. Parker requested clarification on the labor concerns and what kind of restrictions and limitations could be placed in the contract to ensure that law abiding companies are driving the trucks.

Mr. Gilchrist noted that many of the labor issues concern lease-to-own agreements and this project does not involve lease-to-own options. He added that the District is exploring placing conditions on contract awards that will address the violations that have occurred with lease-to-own agreements and the possibility that the contracts can be written to prohibit lease-to-own options.

Mr. Nastri recommended that if the labor concerns cannot be resolved with NFI that the District pursue another suitable partner or utilize Penske for all the trucks.

Mayor Pro Tem Mitchell amended her motion to include the suggestion made by Mr. Nastri.

Chairman Burke expressed support for staff’s recommendation and acknowledged Daimler’s strong business reputation.

MOVED BY MITCHELL, SECONDED BY CACCIOTTI, AGENDA ITEM 4 APPROVED WITH DIRECTION TO STAFF THAT IF LABOR VIOLATION CONCERNS CANNOT BE RESOLVED WITH NFI, THE FIVE TRUCKS PROPOSED TO BE PROVIDED TO THEM BY DAIMLER BE ALLOCATED TO AN ALTERNATIVE SUITABLE VENDOR OR PENSKE, BY THE FOLLOWING VOTE:

AYES: Ashley, Burke, Cacciotti, Mitchell, Nelson, Parker, Robinson, Rutherford and Solis

NOES: None

ABSTAIN: Lyou

ABSENT: Benoit, Buscaino and McCallon

5. Execute and Amend Contracts for Technical Assistance for Advanced, Low and Zero Emissions Mobile and Stationary Source Technologies and Implementation of Incentive Programs

Mr. Eder urged support for additional funding of solar technologies.

7. Authorize Executive Officer to Enter into CARB AB 197 Grant Agreement, Recognize Revenue, and Appropriate Funds to Support SCAQMD's Annual Emissions Reporting Software

(Mr. Eder had requested to speak on Item 7, but after speaking on other items did not have time remaining to do so.)

9. Approve Contract Awards and Modification as Approved by MSRC

Chairman Burke acknowledged that the current list of projects to be funded is the most robust he has seen in 25 years.

(Mr. Eder had requested to speak on Item 9, but after speaking on other items did not have time remaining to do so.)

MOVED BY ROBINSON, SECONDED BY MITCHELL, AGENDA ITEMS 5, 7 AND 9 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: Ashley *(except Item #9)*, Burke, Cacciotti, Mitchell, Nelson, Parker, Robinson, Rutherford and Solis

NOES: None

ABSTAIN: Ashley *(Item #9 only)* and Lyou *(Items #5 and #9 only)*

ABSENT: Benoit, Buscaino, Lyou *(Item #7 only)* and McCallon

MOVED BY CACCIOTTI, SECONDED BY SOLIS, AGENDA ITEMS 10 THROUGH 16 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: Ashley, Burke, Cacciotti, Lyou, Mitchell, Nelson, Parker, Robinson, Rutherford and Solis

NOES: None

ABSENT: Benoit, Buscaino and McCallon

BOARD CALENDAR

18. Administrative Committee

19. Legislative Committee

20. Refinery Committee

21. Stationary Source Committee

22. Technology Committee

23. Mobile Source Air Pollution Reduction Review Committee

24. California Air Resources Board Monthly Report

MOVED BY MITCHELL, SECONDED BY CACCIOTTI, AGENDA ITEMS 18 THROUGH 24, APPROVED AS RECOMMENDED, RECEIVING AND FILING THE COMMITTEE, MSRC AND CARB REPORTS AND APPROVING THE FOLLOWING POSITIONS ON LEGISLATION, BY THE FOLLOWING VOTE:

AYES: Ashley, Burke, Cacciotti, Lyou, Mitchell, Nelson, Parker, Robinson, Rutherford and Solis

NOES: None

ABSENT: Benoit, Buscaino and McCallon

Agenda Item	**Recommendation**
AB 2145 (Reyes) Vehicular air pollution	Support
SB 1260 (Jackson) Fire prevention and protection: prescribed burn	Support with Amendments

Staff Presentation/Board Discussion

25. Recommend Communities and Initial Implementation Schedule for Assembly Bill 617

Dr. Philip Fine, DEO/Planning, Rule Development and Area Sources, gave the staff presentation on Item 25.

Supervisor Solis commended staff for the effort to identify the communities most in need of assistance. She inquired about the overlap of some of the potential areas for years two through five and expressed support for expanding these areas to include communities in San Gabriel Valley adjacent to the 605 freeway.

Christopher Chavez, Coalition for Clean Air, expressed agreement with the nominations for year one implementation and noted that these areas are among the most polluted in the South Coast Air Basin and home to a large socioeconomically disadvantaged population. He expressed support for

community monitoring programs and recommended adapting the community selection model created by the San Joaquin Valley's AB 617 Environmental Justice Steering Committee. He encouraged the District to develop a plan to incorporate the "Replace Your Ride" Program into AB 617 efforts.

Marc Carrel, Breathe LA, expressed support for the communities recommended by staff. He noted the importance of addressing exposure levels of residents in communities and commended staff for their analysis of schools and daycare centers in close proximity to freeways. He noted support for including the "Replace Your Ride" Program in AB 617 efforts to encourage the use of light-duty vehicles in these communities.

Dr. Lyou noted support for the communities that have been identified. He expressed the importance of utilizing a more bottom-up approach to engaging the community and advocacy organizations in the development of the prioritization of communities. He suggested an approach similar to that used by San Joaquin Valley APCD for selecting priority communities.

Mr. Nastri responded that he, along with administrators from the San Joaquin Valley APCD and Bay Area AQMD, met with Genevieve Gale from the Central Valley Air Quality Coalition, who assisted the San Joaquin Valley APCD in their process for identifying communities.

Mayor Pro Tem Mitchell expressed support for staff's recommendation and noted the importance of stakeholder involvement throughout the process. CARB had envisioned the formation of community steering committees for the duration of each program.

MOVED BY MITCHELL, SECONDED BY CACCIOTTI, AGENDA ITEM 25, APPROVED AS RECOMMENDED, APPROVING RECOMMENDATIONS FOR THE IMPLEMENTATION SCHEDULE FOR AB 617 COMMUNITIES AND THE DRAFT REPORT TO BE SUBMITTED TO CARB, BY THE FOLLOWING VOTE:

AYES:	Ashley, Burke, Cacciotti, Lyou, Mitchell, Nelson, Parker, Robinson, Rutherford and Solis
NOES:	None
ABSENT:	Benoit, Buscaino and McCallon

PUBLIC HEARINGS

26. Determine that Proposed Amendments to Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces are Exempt from CEQA and Amend Rule 1111

Tracy Goss, Planning and Rules Manager, gave the presentation on Item No. 26.

The public hearing was opened and the following individuals addressed the Board on Item 26.

Mr. Eder expressed concern about natural gas and opposed the adoption of the rule. He recommended support for new solar thermal technologies.

Rusty Tharp, Goodman Manufacturing
Ryan Teschner, Rheem Manufacturing (Submitted Written Comments)
Expressed support for the provision to allow customer notification through brochures and on websites rather than labels on the furnaces.

David Winningham, Lennox International, expressed support for the amendments and the requirement to provide customer notification regarding compliant projects through brochures and on websites rather than labels on equipment. He added that Lennox does not support a sell-through period. (Submitted Written Comments)

There being no further public testimony on this item, the public hearing was closed.

Written Comments Submitted By:
Chris Forth, Johnson Controls

MOVED BY LYOU, SECONDED BY MITCHELL, AGENDA ITEM 26 APPROVED AS RECOMMENDED, ADOPTING RESOLUTION NO. 18-12, DETERMINING THAT PROPOSED AMENDMENTS TO RULE 1111 ARE EXEMPT FROM THE REQUIREMENTS OF CEQA AND AMENDING RULE 1111—REDUCTION OF NOx EMISSIONS FROM NATURAL-GAS-FIRED, FAN-TYPE CENTRAL FURNACES, BY THE FOLLOWING VOTE:

AYES: Ashley, Burke, Cacciotti, Lyou, Mitchell, Nelson, Parker, Robinson, Rutherford and Solis

NOES: None

ABSENT: Benoit, Buscaino and McCallon

27. Receive and File 2017 Annual Report on AB 2588 Program; and Approve Updates to Facility Prioritization Procedure, Supplemental Guidelines for AB 2588 Program, and Guidelines for Participating in Rule 1402 Voluntary Risk Reduction Program

This item was pulled from consideration by staff.

PUBLIC COMMENT PERIOD – (Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3)

Mr. Eder expressed concerns regarding global warming and discrepancies in the numbers reported for methane and CO_2 by the state and the District.

Florence Gharibian, Del Amo Action Committee, highlighted the dangers of hydrofluoric acid and asked for the status of the development of proposed Rule 1410.

Dr. Lyou asked staff if the next meeting of the Refinery Committee has been scheduled.

Mr. Nastri explained that the next proposed meeting date is September 22.

Maria Jacquez, Sun Valley Resident, expressed concerns about two recycling facilities in her community. She indicated that residents are experiencing respiratory illnesses and damage to their homes as a result of trucks carrying materials to the facilities. She explained that she has filed complaints with the District in the past, but is not aware that any action has been taken.

Chairman Burke asked staff to follow-up with Ms. Jacquez regarding her comments.

CLOSED SESSION

The Board recessed to closed session at 11:05 a.m., pursuant to Government Code sections:

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

- 54956.9(a) and 54956.9(d)(1) to confer with its counsel regarding pending litigation which has been initiated formally and to which the SCAQMD is a party. The actions are:

  Communities for a Better Environment v. SCAQMD, Los Angeles Superior Court Case No. BS161399 (RECLAIM);

  People of the State of California, ex rel. SCAQMD v. Exide Technologies, Inc., Los Angeles Superior Court Case No. BC533528;

  In re: Exide Technologies, Inc., U.S. Bankruptcy Court, District of Delaware, Case No. 13-11482 (KJC) (Bankruptcy Case);

  Johnson Controls, Inc. v. SCAQMD, Los Angeles Superior Court Case No. BS173108;

  Rainbow Transfer/Recycling, Inc. v South Coast Air Quality Management District, et al., Los Angeles Superior Case No. BS171620; and

  In the Matter of SCAQMD v. Rainbow Transfer/Recycling, Inc., SCAQMD Hearing Board Case No. 4394-2.

CONFERENCE WITH LEGAL COUNSEL – INITIATING LITIGATION

- 54956.9(a) and 54956.9(d)(4) to consider initiation of litigation (four cases).

Following closed session, Mr. Gilchrist announced that a report of any reportable actions taken in closed session will be filed with the Clerk of the Board's office and made available to the public upon request.

ADJOURNMENT

There being no further business, the meeting was adjourned by Mr. Gilchrist at 11:25 a.m.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on July 6, 2018.

Respectfully Submitted,

Denise Garzaro
Clerk of the Boards

Date Minutes Approved: _____

_____
Dr. William A. Burke, Chairman

ACRONYMS

AQMP = Air Quality Management Plan
CARB = California Air Resources Board
CEQA = California Environmental Quality Act
CO_2 = Carbon Dioxide
DEO = Deputy Executive Officer
EV = Electric Vehicle
MSRC = Mobile Source (Air Pollution Reduction) Review Committee
NOx = Oxides of Nitrogen

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 2

PROPOSAL: Set Public Hearing October 5, 2018 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations

Certify Final Subsequent Environmental Assessment and Amend Rule 2001 – Applicability and Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx)

On January 5, 2018, the Board adopted amendments to Rules 2001 and 2002 to initiate the transition of NOx RECLAIM to a command-and-control regulatory structure. To support ongoing efforts for transitioning RECLAIM facilities, PAR 2001 would add a provision to allow facilities to opt-out of RECLAIM if certain criteria are met. PAR 2002 would provide an option, for facilities that receive an initial determination notification, to stay in RECLAIM for a limited time while complying with applicable command-and-control requirements. PAR 2002 would also establish a provision that precludes any former RECLAIM facility from obtaining offsets from the SCAQMD internal bank. PAR 2002 also clarifies existing language and removes obsolete provisions, including requirements to report infinite year block (IYB) NOx RTC prices to the Board when the price falls below the minimum threshold. This action is to adopt the Resolution: 1) Certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 2001 – Applicability and Proposed Amended Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx); and 2) Amending Rule 2001 – Applicability and Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx). (Reviewed: Stationary Source Committee, July 20, 2018)

The complete text of the proposed amendments, staff report and other supporting documents will be available from the SCAQMD's Public Information Center, (909) 396-2001 and on the Internet (www.aqmd.gov) as of September 5, 2018.

RECOMMENDED ACTION:
Set Public Hearing October 5, 2018 to amend Rules 2001 and 2002.

Wayne Nastri
Executive Officer

dg

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 3

PROPOSAL: Recognize Funds, Execute and Amend Agreements for Installation and Maintenance of Air Filtration Systems, Reimburse General Fund for Administrative Costs, and Purchase Electric School Buses

SYNOPSIS: U.S. EPA is executing two Supplemental Environmental Project (SEP) agreements and has asked SCAQMD to act as the SEP Implementer to install and maintain air filtration systems at schools. These actions are to recognize up to $575,000 into the Air Filtration Fund (75). These actions are to also execute agreements to install and maintain air filtration systems in an amount cumulatively not to exceed $2,035,848, from the Air Filtration Fund (75), the LADWP Variance Special Revenue Fund (69), and the LADWP Settlement Projects Fund (38); execute or amend access agreements with local school districts; amend contracts to purchase additional filters using unspent administrative funds; and reimburse the General Fund for administrative costs up to $28,750 to administer the SEPs. Finally, these actions are to execute a contract to purchase electric school buses in an amount not to exceed $427,460 from the LADWP Variance Special Revenue Fund (69).

COMMITTEE: Technology, July 20, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize up to $350,000 from Schneider National, Inc., and $225,000 from Old Dominion Freight Line, Inc., for SEPs being administered on behalf of the U.S. EPA into the Air Filtration Fund (75).
2. Authorize the Executive Officer to execute agreements with Schneider National, Inc., and Old Dominion Freight Line, Inc., for SCAQMD to implement SEPs for installation and maintenance of air filtration systems and to execute or amend agreements with local school districts for the purpose of implementing SEP agreements.
3. Authorize the Chairman to execute one or more contracts with IQAir North America for installation and maintenance of air filtration systems at schools in an amount cumulatively not to exceed $2,035,848, comprised of $546,250 from the Air

Filtration Fund (75), $1,092,332 from the LADWP Variance Special Revenue Fund (69) and $397,266 from LADWP Settlement Projects Fund (38).

4. Authorize the Chairman to amend, as needed, one or more contracts with IQAir North America which are funded by an Air Filtration SEP or approved by this Board letter to purchase additional filters using unspent administrative funds.
5. Reimburse the General Fund from the Air Filtration Fund (75) for administrative costs up to $28,750, as needed, to implement the air filtration projects.
6. Authorize the Executive Officer to execute an agreement with Los Angeles Unified School District for the purchase of up to three electric school buses including installation of charging infrastructure in an amount not to exceed $427,460 from the LADWP Variance Special Revenue Fund (69).

Wayne Nastri
Executive Officer

MMM:FM:NB:PSK

Background

U.S. EPA is executing Supplemental Environmental Project (SEP) agreements with Schneider National, Inc., and Old Dominion Freight Line, Inc., to install and maintain air filtration systems at schools in Environmental Justice (EJ) communities or geographical target areas identified by the SEP agreement and has once again asked SCAQMD to act as the SEP Implementer.

In 2016, the Los Angeles Department of Water and Power (LADWP) obtained a variance from the SCAQMD Hearing Board for the use of diesel fuel at the Harbor, Haynes and Valley generating stations. The mitigation fees were received into the LADWP Variance Special Revenue Fund (69), recognized by the Board in November 2016. Based on the environmental mitigation plan submitted for this variance, LADWP agreed to provide funding for air filtration systems and electric school buses to Los Angeles Unified School District (LAUSD) and for air filtration systems to Long Beach Unified School District (LBUSD). Funds remaining from a 2001 LADWP settlement Fund (38), recognized by the Board in June 2001, will also be used for installation and maintenance of air filtration systems in schools.

IQAir North America (IQAir) was previously selected through two separate competitive bid processes in 2011 and 2013 for air filtration projects, and staff subsequently performed a technology status check to ensure no new technologies had come on the market. Furthermore, IQAir is the only qualified manufacturer of high performance panel filters and stand-alone units which met the performance standards in SCAQMD's 2009 air filtration pilot study as well as through a national testing opportunity conducted in 2010 by the University of California Riverside's College of Engineering/Center for

Environmental Research and Technology. These performance standards include an average removal efficiency of at least 85 percent for ultrafine PM, black carbon and PM2.5, and noise level below 45 decibels for stand-alone units. To date, SCAQMD has installed air filtration systems at 76 schools and community centers.

Proposal

U.S. EPA staff have requested that schools receiving air filtration systems be in EJ communities or other areas disproportionally impacted by diesel PM and for project completion to occur by December 2019. For the SEP with Old Dominion Freight Line, Inc., schools in Rialto, followed by Colton or San Bernardino will be prioritized. The funding includes five percent for reimbursement of administrative costs.

For the 2016 LADWP settlement (LADWP Variance Special Revenue Fund (69)), LAUSD will purchase up to three electric school buses and install charging infrastructure at LAUSD's Sun Valley bus depot. To be eligible for funding, subsequent to Board approval and prior to contract execution, LAUSD must apply, and get approval, for funding from the Hybrid and Zero Emission Truck and Bus Voucher Incentive Project (HVIP) funds from CARB. The LADWP funds will then be used to pay for the balance of the electric school buses not exceeding $115,000 per bus, after subtracting the HVIP voucher amount. If LAUSD is not successful in securing HVIP funds but is still interested in purchasing the buses solely with SCAQMD funding, contracts will be executed up to the approved amount. Funding for electric charging infrastructure will not exceed $82,460 and must include panel and transformer upgrades as required at the Sun Valley bus depot. In addition, as part of the 2016 LADWP settlement (LADWP Variance Special Revenue Fund (69)), LAUSD and LBUSD will install and maintain air filtration systems at schools located near the Harbor and Haynes generating stations. This can include installation of air filtration systems or replacement filters at schools which already have air filtration systems in place. Finally, $397,266 from the 2001 LADWP settlement (Fund 38) will be used to fund additional air filtration systems. Staff will work with school districts to select and prioritize which schools will receive air filtration systems.

The proposed schedule for installation and maintenance of air filtration systems in one or more schools in EJ communities is as follows:

Date	Event
September 2018	Board Approval
October 2018	Anticipated Execution of Contracts
October 2018–March 2019	Selection of Schools, Site Assessments
October 2018–December 2019	Installation
October 2018–October 2023	Maintenance (varies by school)
December 2019	Final Report

These actions are to: 1) recognize up to $575,000 from SEP agreements into the Air Filtration Fund (75); 2) authorize the Executive Officer to execute agreements with Schneider National, Inc., and Old Dominion Freight Line, Inc., to implement SEPs for installation and maintenance of air filtration systems and to execute or amend agreements with local school districts for the purpose of implementing SEP agreements; 3) execute and amend agreements with IQAir North America for installation and maintenance of air filtration systems at schools in an amount cumulatively not to exceed $2,035,848, comprised of $546,250 from the Air Filtration Fund (75), $1,092,332 from the LADWP Variance Special Revenue Fund (69) and $397,266 from the LADWP Settlement Projects Fund (38); 4) amend, as needed, contracts with IQAir North America funded by an air filtration SEP to purchase additional filters using unspent administrative funds; 5) reimburse the General Fund from the Air Filtration Fund (75) for administrative costs up to $28,750; and 6) authorize the Executive Officer to execute an agreement with LAUSD for the purchase of electric school buses including charging infrastructure in an amount not to exceed $427,460 from the LADWP Variance Special Revenue Fund (69).

Sole Source Justification

Section VIII. B. 2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for a sole source award is made under provision B.2.c (1): The desired services are available from only the sole-source based upon the unique experience and capabilities of the proposed contractor or contractor team. IQAir remains the only manufacturer of high performance panel filters and stand-alone units identified by SCAQMD and CARB staff that meet the performance standards required to complete the work.

Benefits to SCAQMD

This project will reduce children's exposure to criteria and toxic pollutants and ultrafine PM. Health studies have determined that fine and ultrafine PM, including diesel PM, present the greatest air pollution health risk to sensitive receptors in EJ communities identified in the SEP agreements.

Resource Impacts

Through previous Board actions, $1,519,792 from LADWP has already been recognized into the LADWP Variance Special Revenue Fund (69) and $397,266 into the LADWP Settlement Projects Fund (38). The new contracts with IQAir will not cumulatively exceed $2,035,848, and the contract amendments with IQAir to purchase additional filters will not exceed the amount of any unspent administrative fees. Reimbursement of administrative costs will not exceed $28,750. And finally, the contract with LAUSD will not exceed $427,460.

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 4

PROPOSAL: Recognize Revenue from CARB for Carl Moyer Program and EFMP; Transfer and Appropriate Funds, Amend Contract for Implementing Assistance and Reimburse General Fund for Administrative and Outreach Costs for EFMP

SYNOPSIS: CARB has allocated $2,674,384 to SCAQMD under the Voluntary NOx Remediation Measure (NRM) Funding Program. These actions are to recognize $2,674,384 into the Carl Moyer Program Fund (32) and execute a Memorandum of Agreement with CARB for implementation of the NRM Funding Program. Since 2015, SCAQMD has been implementing an Enhanced Fleet Modernization Program (EFMP), branded as Replace Your Ride. For FY 2017-18, CARB allocated SCAQMD an additional $16.4 million in funds to continue implementation of EFMP. These actions are to recognize up to $16.4 million for EFMP, accept terms and conditions of the grant awards, approve vouchers or other alternative mobility options until all available funds are exhausted, amend a contract for case management and vehicle remote sensing activities in support of EFMP in an amount not to exceed $550,000 from the HEROS II Special Revenue Fund (56), transfer and appropriate up to $65,500 to Science & Technology Advancement's FY 2018-19 or 2019-20 Budget, and reimburse the General Fund for administrative and outreach costs necessary to implement EFMP.

COMMITTEE: Technology, July 20, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize, upon receipt, up to $2,674,384 from CARB's Voluntary NOx Remediation Measure Funding Program into the Carl Moyer Program Fund (32), and authorize the Executive Officer to execute a Memorandum of Agreement with CARB for implementation of this program.
2. Recognize, upon receipt, up to $16.4 million from CARB's Enhanced Fleet Modernization Program into the HEROS II Special Revenue Fund (56), and authorize the Executive Officer to accept terms and conditions of the grant awards

from CARB and to approve vouchers or other alternative mobility options for the continued implementation of the EFMP base and plus-up incentives until all funds are exhausted.

3. Authorize the Executive Officer to amend a contract with Opus Inspection to continue case management and remote sensing activities in support of the EFMP for an amount not to exceed $550,000 from the administrative portion of the HEROS II Special Revenue Fund (56).
4. Reimburse the General Fund up to $2,460,000 from the HEROS II Special Revenue Fund (56) as authorized by the grant agreements for the administrative and outreach costs necessary to implement the EFMP.
5. Transfer, as needed, up to $65,500 from the HEROS II Special Revenue Fund (56) to the General Fund and appropriate up to $65,500 to Science & Technology Advancement's FY 2018-19 or 2019-20 Budget, Services and Supplies Major Object, Professional and Special Services Account, for EFMP marketing and outreach efforts.

Wayne Nastri
Executive Officer

MMM:FM:VW

Background

CARB has allocated $2,674,384 to the SCAQMD under the Voluntary NOx Remediation Measure (NRM) Funding Program. Projects under the NRM are to be implemented pursuant to the Carl Moyer Program guidelines with a cost-effectiveness limit of $10,000 per ton for NOx reductions. Projects that are eligible for the Carl Moyer Program funding will be eligible for NRM funding.

Since 2015, the SCAQMD has been implementing an Enhanced Fleet Modernization Program (EFMP), branded as Replace Your Ride, which is authorized by the AB 118 California Alternative and Renewable Fuel, Vehicle Technology, Clean Air, and Carbon Reduction Act of 2007 (Health and Safety Code Sections 44124-44127). The EFMP is a comprehensive statewide program with two elements: a vehicle retirement only element and a vehicle retire and replacement element. The SCAQMD's EFMP is a vehicle retire and replacement program, which provides incentives to low-income motorists to scrap and replace their older, high-emitting vehicles with newer, cleaner models or other clean transportation options. The EFMP Plus-Up, which has been primarily funded through the Low Carbon Transportation Greenhouse Gas Emission Reduction Fund (GGRF), complements the base EFMP by providing additional funds for vehicle owners that reside in disadvantaged communities.

To date, SCAQMD has provided funding for replacement of over 3,000 older passenger vehicles with newer fuel-efficient conventional vehicles, hybrid electric vehicles, plug-in hybrid electric vehicles and dedicated electric vehicles. For FY 2017-18, CARB has allocated SCAQMD additional funds to continue implementation of EFMP, including $1.4 million from Assembly Bill 97 (the Budget Act of 2017) for the EFMP base and $15 million in plus-up funds from the Low Carbon Transportation Program/Volkswagen Settlement Fund. The EFMP provides reimbursement of administrative and outreach costs up to 15 percent of the award amount.

Proposal

These actions are to recognize $2,674,384 from CARB's NRM Funding Program into the Carl Moyer Program Fund (32) and authorize the Executive Officer to execute a Memorandum of Agreement with CARB for implementation of this program. Projects funded by the NRM must adhere to the Carl Moyer Program Guidelines, except with a lower cost-effectiveness limit of $10,000 per ton of NOx reduced. Staff anticipates the selection of projects for the NRM will be made from the backup list from this year's Carl Moyer Program, which received funding requests that far exceeded the amount of available funds.

The Replace Your Ride Program has been largely successful since its inception in 2015, and has become a well-established program for providing emissions reduction benefits to disadvantaged communities. Of the vouchers issued, approximately 94 percent of the low-income participants reside in disadvantaged communities. The SCAQMD has developed a user-friendly website and added new case managers to assist the growing number of participants with completing and submitting applications to the program. These actions are to recognize up to $16.4 million from CARB's Enhanced Fleet Modernization Program into the HEROS II Special Revenue Fund (56) and authorize the Executive Officer to accept terms and conditions of the grant awards and approve vouchers or other alternative mobility options for this program until all available funds are exhausted. The additional funding for FY 2017-18 will enable the continuation of this program for qualifying low-income motorists and provide additional benefits to disadvantaged communities.

Replace Your Ride is implemented with the assistance of contractors, one of which is Opus Inspection. Opus Inspection provides case management support and remote sensing measurements of vehicle emissions, an integral part of SCAQMD's Replace Your Ride Program. However, Opus Inspection's current contract needs an augmentation of funds to continue to assist with implementation of the program given the new funding. This action is to authorize the Executive Officer to amend the contract with Opus Inspection, adding an additional $550,000 from the administrative portion of the HEROS II Special Revenue Fund (56) to provide continued case management support and remote sensing measurements of vehicle emissions.

Finally, these actions are to transfer up to $65,500 from the HEROS II Special Revenue Fund (56) to the General Fund, appropriate up to $65,500 to Science & Technology Advancement's FY 2018-19 or 2019-20 for marketing and outreach efforts, and reimburse the General Fund from the HEROS Special Revenue Fund (56) for administrative and outreach costs up to $2,460,000 to implement the EFMP.

Benefits to SCAQMD

The successful implementation of the NRM Funding Program and the EFMP will further reduce emissions by accelerating the turnover of high-emitting vehicles with cleaner, more fuel efficient replacement vehicles. The EFMP will continue to provide incentives to qualifying lower income vehicle owners including those residing in disadvantaged communities, thereby providing emission reduction benefits to these communities.

Resource Impacts

Revenue for the NRM Funding Program totaling $2,674,384 will be recognized into the Carl Moyer Program Fund (32). Revenue for the EFMP totaling up to $16.4 million ($1.4 million for the base and $15 million for the Plus-Up Program) will be recognized into the HEROS II Special Revenue Fund (56) for continued implementation of EFMP.

The contract amendment with Opus Inspection will not exceed $550,000 from the administrative portion of the HEROS II Special Revenue Fund (56), the transfer and appropriation for marketing and outreach costs will not exceed $65,500, and reimbursement of administrative and outreach costs will not exceed $2,460,000.

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 5

PROPOSAL: Amend Contract Awards for Mobile Source Emissions Reduction Projects

SYNOPSIS: In November 2017, the Board approved contract awards for mobile source emissions reduction projects evaluated under the Carl Moyer Program Guidelines and funded by AB 134 Community Air Protection funds. Subsequently, in April 2018, CARB approved a supplement to the Carl Moyer Program Guidelines (Guidelines Supplement) for projects funded specifically under the Community Air Protection Program. The Guidelines Supplement is intended to facilitate immediate emissions reductions in disadvantaged and low-income communities. The Guidelines Supplement preserves the statutory requirements of the Carl Moyer Program, including cost-effectiveness and surplus emissions reductions, while broadening project eligibility and providing higher grant amounts for Community Air Protection projects. After applying the Guidelines Supplement to the AB 134 Board-approved projects, staff determined several projects in disadvantaged and low-income communities now qualify for higher grant amounts. This action is to amend contract awards for mobile source emissions reduction projects adding up to $4,488,282 for certain projects originally approved from the Community Air Protection AB 134 Fund (77).

COMMITTEE: Technology, July 20, 2018; Recommended for Approval

RECOMMENDED ACTION:
Amend contract awards under the Community Air Protection Program as identified in the attached table, adding up to $4,488,282 for a total award of $41,849,118 from the Community Air Protection AB 134 Fund (77).

Wayne Nastri
Executive Officer

MMM:FM:VAW

Background
Assembly Bill 134 (AB 134), which was approved by the Governor in September 2017, was established to achieve early emissions reductions from mobile sources in communities most affected by air pollution. The bill appropriated $250 million from the Greenhouse Gas Reduction Fund to air districts to implement mobile source projects eligible under the Carl Moyer and the Proposition 1B-Goods Movement Program. Of these funds, $107.5 million was allocated to SCAQMD.

In November 2017, the Board approved contract awards for mobile source emissions reduction projects totaling $51,701,413 to be funded by AB 134 Community Air Protection funds. The Board also authorized the Executive Officer to redistribute the source of funds between Carl Moyer SB 1107, AB 923 and AB 134. Subsequently, in April 2018, CARB's Board approved a supplement to the Carl Moyer Program Guidelines (Guidelines Supplement) for projects funded by the Community Air Protection Program. The Guidelines Supplement is intended to facilitate early action projects that will achieve immediate emissions reductions in disadvantaged and low-income communities. The Guidelines Supplement maintains the statutory requirements of the Carl Moyer Program, including cost-effectiveness and surplus emissions reductions, while broadening project eligibility and providing higher grant amounts for Community Air Protection projects. Of the projects approved in November 2017, 260 engines, which were previously awarded $37,360,836, qualify for additional AB 134 funding through the Guidelines Supplement.

Proposal
After applying the Guidelines Supplement to the AB 134 Board-approved projects, staff determined several projects (funded in the amount of $37,360,836) were located in disadvantaged and low-income communities and thus qualified for higher grant amounts. This action is to amend contract awards under the Community Air Protection Program AB 134 Fund (77) as identified in the attached table, to increase awards for certain projects that previously totaled $37,360,836 by increasing the awards by $4,488,282 for a new total of $41,849,118.

Benefits to SCAQMD
The successful implementation of the AB 134 Community Air Protection projects will provide direct emissions reductions of criteria air pollutants, toxic air contaminants and greenhouse gases in disadvantaged and low-income communities as intended by the program. The vehicles and equipment funded under this program will operate for the life of the contract and beyond, providing long-term emission reduction benefits in the affected communities.

Resource Impacts
Additional funding for the Community Air Protection projects as listed in the attached table will not exceed $4,488,282 from the Community Air Protection AB 134 Fund (77).

Attachment
AB 134 Community Air Protection Project Awards

AB 134 Community Air Protection Project Awards

Applicant Name	Category	Project Type	No. of Engines	Original Award	Additional Award Based on Guidelines Supplement	Revised Total Contract Award
Amazing Coachella, Inc.	Off-Road - Ag	Replacement	13	$1,739,885	$391,039	$2,130,924
Arthur Smith	Marine	Repower	2	$305,868	$38,233	$344,101
Bali Construction	Off-Road	Replacement	6	$247,779	$78,819	$326,598
Belk Farms, LLC	Off-Road - Ag	Replacement	12	$605,785	$94,527	$700,312
Bogh Engineering Inc.	Off-Road	Repower	1	$103,774	$37,062	$140,836
Bryan Keith Bishop	Marine	Repower	2	$130,400	$16,300	$146,700
C5 Equipment Rentals, LLC	Off-Road	Replacement	5	$496,394	$134,299	$630,693
Cal Crystal Sea, LLC	Marine	Repower	2	$225,600	$28,200	$253,800
Caplinger Construction	Off-Road	Replacement	1	$362,164	$45,270	$407,434
Clinton Nguyen	Marine	Repower	2	$125,600	$15,700	$141,300
Cold Creek Estates, LLC	Off-Road - Ag	Replacement	1	$83,913	$5,853	$89,766
Daniel Hernandez Fishing Adventures	Marine	Repower	2	$188,800	$23,600	$212,400
Don Bean Ranch	Off-Road - Ag	Replacement	1	$163,567	$20,446	$184,013
Dung Van Nguyen*	Marine	Repower	2	$147,200	$18,400	$165,600
Ernest D. Beard II	Marine	Repower	2	$238,400	$29,800	$268,200
Evergreen Recycling, Inc.	Off-Road	Replacement	1	$179,617	$91,501	$271,118
Exodus Charters, Inc.	Marine	Repower	2	$234,400	$29,300	$263,700
Full Season Ag Inc.	Off-Road - Ag	Replacement	1	$84,959	$5,507	$90,466
Gateway Concrete, Inc.	Off-Road	Replacement	2	$117,670	$13,582	$131,252
GH Dairy	Off-Road - Ag	Replacement	6	$674,900	$89,120	$764,020
Golden Farm	Off-Road - Ag	Replacement	7	$644,036	$80,506	$724,542
Hacienda De Trampas	Off-Road - Ag	Replacement	1	$36,314	$10,375	$46,689
Harbor Breeze Corp.	Marine	Repower	7	$1,566,779	$193,700	$1,760,479
Harley Marine Services, Inc.	Marine	Repower	3	$1,734,228	$216,779	$1,951,007
Hollandia Farms North, Inc.	Off-Road - Ag	Replacement	4	$399,795	$49,974	$449,769
Indacochea Sheep Ranch	Off-Road - Ag	Replacement	2	$415,837	$51,980	$467,817
J Deluca Fish Company	Marine	Repower	2	$344,000	$43,000	$387,000
JC Farming Inc.	Off-Road - Ag	Replacement	1	$700,067	$87,508	$787,575
JMJ Sportfishing Inc.	Marine	Repower	2	$340,000	$42,500	$382,500
Joseph Prieto	Marine	Repower	2	$142,400	$17,800	$160,200
Joshua Fisher	Marine	Repower	1	$143,200	$17,900	$161,100
Junior Enterprises, LLC	Off-Road - Ag	Replacement	5	$351,838	$100,524	$452,362
La Quinta Date Growers, LP	Off-Road - Ag	Replacement	1	$105,504	$21,473	$126,977
Latin Lady Ranch, LLC	Off-Road - Ag	Replacement	1	$88,718	$11,090	$99,808
Long Beach Anglers, Inc.	Marine	Repower	1	$123,200	$15,400	$138,600
City of Long Beach*	Marine	Repower	2	$182,400	$22,800	$205,200
Long Life Farms Inc.	Off-Road - Ag	Replacement	26	$1,832,664	$365,249	$2,197,913
Mali Basta Ranches, LLC	Off-Road - Ag	Replacement	11	$750,486	$93,808	$844,294
McMillan Farm Management	Off-Road - Ag	Replacement	2	$128,297	$18,225	$146,522
Monte Carlo Sportfishing	Marine	Repower	2	$265,600	$33,200	$298,800
Pacific Hydrotech Corp.	Off-Road	Replacement	3	$161,048	$13,587	$174,635

Applicant Name	Category	Project Type	No. of Engines	Original Award	Additional Award Based on Guidelines Supplement	Revised Total Contract Award
Peed Equipment Co	Off-Road	Replacement	10	$1,821,941	$300,616	$2,122,557
Power Move, Inc.	Off-Road	Repower	2	$237,646	$27,959	$265,605
Sun and Sands Enterprises, LLC, dba Prime Time International	Off-Road - Ag	Replacement	16	$1,802,378	$368,096	$2,170,474
Pro-Organic Farms LLC	Off-Road - Ag	Replacement	3	$424,374	$54,328	$478,702
Ramona Dairy	Off-Road - Ag	Replacement	14	$1,942,440	$242,803	$2,185,243
Recycled Wood Products	Off-Road	Replacement	7	$1,172,515	$71,642	$1,244,157
Richard Bagdasarian, Inc.	Off-Road - Ag	Replacement	1	$58,061	$7,258	$65,319
Russ Bell Equipment	Off-Road	Repower/ Retrofit	5	$683,205	$68,786	$751,991
Russ Ramsey/Wally Hall	Off-Road - Ag	Replacement	1	$59,662	$7,458	$67,120
Sage Green	Off-Road - Ag	Replacement	1	$806,278	$230,366	$1,036,644
Salvatore David Russo	Marine	Repower	1	$124,800	$15,600	$140,400
San Pedro Pride Inc.	Marine	Repower	1	$112,000	$14,000	$126,000
Scott Bros Dairy Farms	Off-Road - Ag	Replacement	3	$531,975	$66,497	$598,472
Seal Beach Anglers, Inc.	Marine	Repower	1	$123,200	$15,400	$138,600
Steve Mardesich	Marine	Repower	2	$143,200	$17,900	$161,100
Steven Raby	Marine	Repower	1	$114,400	$14,300	$128,700
Sukut	Off-Road	Replacement	15	$8,049,695	$2,042	$8,051,737
Terry Allen Roland	Marine	Repower	1	$128,000	$3,382	$131,382
Toan D. Nguyen	Marine	Repower	2	$154,400	$19,300	$173,700
Toronado Sportfishing, Inc.	Marine	Repower	2	$246,400	$30,800	$277,200
Tradition Sportfishing Charters LLC	Marine	Repower	2	$216,000	$7,739	$223,739
Trojan Inc.	Marine	Repower	2	$264,000	$33,000	$297,000
Van Dam Dairy Farm	Off-Road - Ag	Replacement	4	$649,254	$81,157	$730,411
Varge Richard	Off-Road - Ag	Replacement	1	$55,008	$6,877	$61,885
Wayne Allison	Off-Road - Ag	Replacement	1	$38,556	$4,820	$43,376
West Coast Turf	Off-Road - Ag	Replacement	9	$488,362	$62,220	$550,582
TOTAL			**260**	**$37,360,836**	**$4,488,282**	**$41,849,118**

*Name correction from November 2017 Board letter

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 6

PROPOSAL: Appropriate Funds, and Issue RFP to Assess Potential Cost and Economic Impacts of Proposed Facility-Based Mobile Source Control Measures on Warehouses and Distribution Centers

SYNOPSIS: On May 4, 2018, the Board directed staff to pursue development of facility-based emission reduction strategies for warehouses and distribution centers including through a potential rule. The Board further directed staff to provide regular progress reports, including an assessment of potential economic impacts. To assist with this assessment, staff is proposing to release an RFP to solicit bids to estimate a range of potential costs based on hypothetical rule scenarios and the resultant impacts on freight operation, such as potential cargo diversion from local warehouses to facilities in adjacent regions. This action is to appropriate up to $200,000 from the General Fund Undesignated (Unassigned) Fund Balance into Planning, Rule Development and Area Sources' FY 2018-19 Budget. This action is to also issue an RFP to solicit qualified bidders to assess potential cost and economic impacts of a potential rule on local warehouses.

COMMITTEE: Mobile Source, July 13, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Appropriate up to $200,000 into Planning, Rule Development and Area Sources' FY 2018-19 Budget, Services and Supplies Major Object, Professional and Special Services account from the General Fund Undesignated (Unassigned) Fund Balance.
2. Approve release of RFP #P2019-02 to solicit proposals to assist staff in assessment of cost and economic impacts of a potential indirect source rule on local warehouses in an amount not to exceed $200,000.

Wayne Nastri
Executive Officer

PF:SR:IM:ES:ML

Background
The 2016 AQMP included a commitment for SCAQMD to assist CARB and U.S. EPA in developing Further Deployment Measures, which included local Facility-Based Mobile Source Measures (FBMSM). FBMSM are intended to reduce mobile source air pollutant emissions associated with the operation of certain types of facilities which attract mobile emission sources, such as warehouses and distribution centers, rail yards, airports, marine ports, and new development or re-development projects.

On May 4, 2018, the Board directed staff to pursue development of facility-based emission reduction strategies for warehouses and distribution centers through both voluntary and regulatory measures. The Board also directed staff to regularly report back to the Mobile Source Committee and the full Board with more detail on each proposed measure, and to provide interim assessments of the potential compliance costs and economic impacts. Specific economic factors to be assessed include potential impacts on competitiveness of the region's logistics sector, potential cargo diversion, impacts to the industrial real estate market, and regional employment.

Proposal
To assist with conducting the economic impact assessments of a potential warehouse rule, staff is seeking Board approval to appropriate up to $200,000 into Planning, Rule Development and Area Sources' FY 2018-19 Budget, Services and Supplies Major Object, Professional and Special Services account from the General Fund Undesignated (Unassigned) Fund Balance.

Staff is also seeking Board approval to release an RFP to solicit qualified contractors in assisting staff with cost and economic impact assessments of regulating local warehouses and distribution centers. The Contractor(s) will classify the region's warehouses by operation type, estimate how potential costs associated with the regulation would be incurred by these facilities and associated trucking fleets, and assess the resultant impacts on freight operation, such as potential cargo diversion from local warehouses and distribution centers to facilities in nearby regions. Funds for this proposal would not exceed $200,000.

Bid Evaluation
Proposals received will be evaluated by a diverse, technically-qualified panel in accordance with criteria contained in the attached RFP. The panel will make recommendations, and the final selection of the Contractor(s) will be subject to approval by the Board.

Outreach
In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFP and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders will be notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFP will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (http://www.aqmd.gov) where it can be viewed by making the selection "Grants & Bids."

Staff will additionally reach out to potential qualified bidders whose work has been cited in related literature or referred to staff by other subject experts.

Resource Impacts
Sufficient funds are available in the General Fund Undesignated (Unassigned) Fund Balance and, upon approval, will be appropriated into Planning, Rule Development and Area Sources' FY 2018-19 Budget for the services requested.

Attachment
RFP #P2019-02

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

REQUEST FOR PROPOSALS

Cost and Economic Impact Analysis of Regulating Local Warehouses and Distribution Centers to Reduce Associated Vehicular Air Pollution

P2019-02

South Coast Air Quality Management District (SCAQMD) requests proposals for the following purpose according to terms and conditions attached. In the preparation of this Request for Proposals (RFP) the words "Proposer," "Contractor," "Consultant," “Bidder” and “Firm” are used interchangeably.

PURPOSE

The purpose of this Request for Proposals (RFP) is to solicit qualified firms or sole practitioners to assist SCAQMD staff in performing a study to assess cost and economic impacts of regulating local warehouses and distribution centers to reduce vehicular (mobile source) air pollutant emissions associated with the operation of these facilities. One or more Contractors will classify the region’s warehouses by operation type, estimate how potential costs associated with the regulation would be incurred by these facilities and associated trucking fleets, and assess the resultant impacts on freight operation, such as potential cargo diversion from local warehouses and distribution centers to facilities in adjacent regions. The Contractor(s) will report findings, results, and recommendations to SCAQMD staff. The Contractor(s) shall demonstrate knowledge of the goods movement sector in Southern California and a detailed understanding of cost decisions regarding the siting and operation of warehouses and distribution centers, and the trucking industry that serves it.

INDEX - The following are contained in this RFP:

SECTION I: BACKGROUND/INFORMATION

The South Coast Air Basin consists of the greater metropolitan areas of Los Angeles, Riverside, and San Bernardino Counties and all of Orange County and has some of the worst air pollution in the nation, exceeding the federal and state clean air standards for both ozone and particulate matter (PM). More than 80% of the region's emissions of nitrogen oxide (NOx), a key precursor pollutant of both ozone and PM, are forecasted to be emitted from mobile sources such as trucks, cargo handling equipment, etc. Heavy duty diesel trucks are the single largest source of NOx in the air basin, largely due to the significant goods movement and warehousing activity in the region. Warehousing activity in the region is described in an April 2018 report released by the Southern California Association of Governments (SCAG):
http://scag.ca.gov/NewsAndMedia/Pages/PublicationsReports.aspx

As described in SCAQMD's 2016 Air Quality Management Plan (AQMP), SCAQMD staff is developing a potential new "indirect source" rule to reduce NOx emissions from mobile sources associated with warehouses and distribution centers. Information regarding this effort can be found in the May 4, 2018 staff report to the SCAQMD Governing Board available here:
www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-may4-032.pdf.

As part of the development of this rule, SCAQMD staff is evaluating the potential economic impact this rule could have on the industrial real estate market within the SCAQMD, the competitiveness of the logistics sector, potential cargo diversion, and resulting jobs impacts. The study requested in this RFP will build on the work being conducted by SCAQMD staff for this rule, and on previous work such as that conducted by SCAG referenced above. Final socioeconomic analysis for this rule will be conducted after this study is complete and before the rule is considered for approval by the SCAQMD Governing Board.

SECTION II: CONTACT PERSON:

Questions regarding the content or intent of this RFP or on procedural matters should be addressed to:

Elaine Shen, Program Supervisor – Mobile Source/ISR
SCAQMD
21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-2715
eshen@aqmd.gov

SECTION III: SCHEDULE OF EVENTS

Date	Event
September 7, 2018	RFP Released
October 9, 2018	Proposals Due to SCAQMD - **No Later Than 12:01 pm**
October 10-12, 2018	Proposal Evaluations
December 7, 2018	Governing Board Approval
December 21, 2018	Anticipated Contract Execution

SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS

It is the policy of SCAQMD to ensure that all businesses including minority business enterprises, women business enterprises, disabled veteran business enterprises and small businesses have a fair and equitable opportunity to compete for and participate in SCAQMD contracts. Attachment A to this RFP contains definitions and further information.

SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES

Statement of Work

One or more Contractors may submit a proposal to complete all or some of the tasks as specified in this Statement of Work. Under SCAQMD staff's direction, each of the Contractors shall provide all labor, reports, services and materials necessary to complete all or some the following tasks:

1. Prepare a technical memorandum that builds upon SCAG's warehousing report referenced in Section I of this RFP. This memorandum should provide further classification and analysis of warehouse types, with a qualitative description of how each warehouse type may respond to an indirect source rule. The proposal should outline how the Contractor will incorporate relevant industry information to fulfill this task.
2. Prepare a technical memorandum that evaluates the warehousing real estate market (capacity, growth potential, etc.) in adjacent metropolitan areas such as the high desert area of Los Angeles and San Bernardino Counties, Las Vegas, Phoenix, and other areas and how those markets could respond to a SCAQMD indirect source rule.
3. Prepare a technical memorandum profiling truck fleets that serve warehouses and distribution centers in the local and adjacent regions. The memorandum will:
    a. Based on fleet data that can be provided confidentially by SCAQMD or other supplementary data provided by the Contractor, estimate the population and characteristics of the truck fleets carrying inbound and outbound freight from warehouses and distribution centers. To the extent data is available, fleet characteristic shall include but are not limited to fleet operation type, fleet size, vehicle age, vehicle classification, fuel technology, etc. Given the hundreds of thousands of trucks operating in the air basin, this task should present very broad categorizations of truck fleets operating at warehouses (e.g., refrigerated, over the road, less than truckload, independent owner-operators vs. large fleets, etc.)
    b. Identify and report any business operation pattern, such as certain categories of truck fleets serving certain types of warehouses and distribution centers.

4. Prepare a technical memorandum estimating potential changes in operating costs incurred by different industries in the goods movement sector, due to accelerated fleet turnover to zero and near-zero emission technologies among those truck fleets serving SCAQMD warehouses. The memorandum will be based on up to ten hypothetical scenarios provided by SCAQMD staff. These hypothetical scenarios will include potential fleet turnover rates, vehicle technology, and technology cost assumptions. The technical memorandum should estimate how these hypothetical scenarios could impact total freight shipping cost in different freight-warehousing market segments.
5. Based on the Tasks 1-4 work products:
    a. Conduct scenario analysis to identify freight types (e.g., specific commodities) that have the highest potential to relocate to areas outside and nearby SCAQMD's jurisdiction.
    b. Conduct scenario analyses to identify how warehouse growth could be affected within SCAQMD's jurisdiction, including evaluating if different types of warehouses may be differentially impacted.
6. Compile all information from the completed tasks into a draft final report, which includes an Executive Summary, for SCAQMD review and comment. Respond to SCAQMD written comments and prepare a final report.
7. Attend public meetings to present analysis and findings as requested by SCAQMD.

Schedule of Deliverables

Each of the Contractors shall, within two weeks of contract execution, submit a detailed work plan for completing all or some of Tasks 1-5 within nine calendar months from contract signing. The tasks to be completed should be consistent with each of the Contractor's technical proposal. All deliverables are subject to SCAQMD staff's review and approval before a task is deemed completed.

A draft final report as described in Task 6 shall be submitted within two weeks from SCAQMD's approval of all deliverables for applicable tasks in Tasks 1-5.

A final report as described also in Task 6 shall be submitted within two weeks from each of the Contractor's receipt of SCAQMD's comments on the draft final report.

During the term of the contract, each of the Contractors may be requested to conduct up to four in-person presentations at public meetings held at the SCAQMD headquarters in Diamond Bar, California. The request for an in-person presentation shall be made with a minimum two-week advanced notice.

All tasks shall be completed and approved by SCAQMD within 12 calendar months from contract execution.

SECTION VI: REQUIRED QUALIFICATIONS

A. Persons or firms proposing to bid on this proposal must be qualified and experienced in analyzing the goods movement sector in Southern California and the relation to the siting and operation of warehouse distribution centers and on truck fleet operations. They must submit qualifications demonstrating the ability to collect and analyze relevant information and data, conduct cost and economic impact evaluation, and prepare technical reports.

B. Proposer must submit the following:

1. Resumes or similar statement of qualifications of person or persons who may be designated as lead staff for contracted tasks.

2. List of representative clients.

3. Summary of Proposer's general qualifications to meet required qualifications and fulfill Statement of Work, including additional Firm personnel and resources beyond those of the designated lead personnel.

SECTION VII: PROPOSAL SUBMITTAL REQUIREMENTS

Submitted proposals must follow the format outlined below and all requested information must be supplied. Failure to submit proposals in the required format will result in elimination from proposal evaluation. SCAQMD may modify the RFP or issue supplementary information or guidelines during the proposal preparation period prior to the due date. Please check our website for updates (http://www.aqmd.gov/grants-bids). The cost for developing the proposal is the responsibility of the Contractor, and shall not be chargeable to SCAQMD.

Each proposal must be submitted in three separate volumes:

- Volume I - Technical Proposal
- Volume II - Cost Proposal
- Volume III - Certifications and Representations included in Attachment B to this RFP, must be completed and executed by an authorized official of the Contractor.

A separate cover letter including the name, address, and telephone number of the contractor, and signed by the person or persons authorized to represent the Firm should accompany the proposal submission. Firm contact information as follows should also be included in the cover letter:

1. Address and telephone number of office in, or nearest to, Diamond Bar, California.

2. Name and title of Firm's representative designated as contact.

A separate Table of Contents should be provided for Volumes I and II.

VOLUME I - TECHNICAL PROPOSAL

DO NOT INCLUDE ANY COST INFORMATION IN THE TECHNICAL VOLUME

Summary (Section A) - State overall approach to meeting the objectives and satisfying the scope of work to be performed, the sequence of activities, and a description of methodology or techniques to be used.

Program Schedule (Section B) - Provide projected milestones or benchmarks for completing the project (to include reports) within the total time allowed.

Project Organization (Section C) - Describe the proposed management structure, program monitoring procedures, and organization of the proposed team. Provide a statement detailing

your approach to the project, specifically address the Firm's ability and willingness to commit and maintain staffing to successfully complete the project on the proposed schedule.

Qualifications (Section D) - Describe the technical capabilities of the Firm. Provide references of other similar studies or projects performed during the last five years demonstrating ability to successfully complete the work. Include contact name, title, and telephone number for any references listed. Provide a statement of your Firm's background and related experience in performing similar services for other governmental organizations.

Assigned Personnel (Section E) - Provide the following information about the staff to be assigned to this project:

1. List all key personnel assigned to the project by level, name and location. Provide a resume or similar statement describing the background, qualifications and experience of the lead person and all persons assigned to the project. Substitution of project manager or lead personnel will not be permitted without prior written approval of SCAQMD.

2. Provide a spreadsheet of the labor hours proposed for each labor category at the task level.

3. Provide a statement indicating whether or not 90% of the work will be performed within the geographical boundaries of SCAQMD.

4. Provide a statement of education and training programs provided to, or required of, the staff identified for participation in the project, particularly with reference to management consulting, governmental practices and procedures, and technical matters.

5. Provide a summary of your Firm's general qualifications to meet required qualifications and fulfill statement of work, including additional Firm personnel and resources beyond those who may be assigned to the project.

Subcontractors (Section F) - This project may require expertise in multiple technical areas. List any subcontractors that will be used, identifying functions to be performed by them, their related qualifications and experience and the total number of hours or percentage of time they will spend on the project.

Conflict of Interest (Section G) - Address possible conflicts of interest with other clients affected by actions performed by the Firm on behalf of SCAQMD. SCAQMD recognizes that prospective Contractors may be performing similar projects for other clients. Include a complete list of such clients for the past three (3) years with the type of work performed and the total number of years performing such tasks for each client. Although the Proposer will not be automatically disqualified by reason of work performed for such clients, SCAQMD reserves the right to consider the nature and extent of such work in evaluating the proposal.

Additional Data (Section H) - Provide other essential data that may assist in the evaluation of this proposal.

VOLUME II - COST PROPOSAL

Name and Address - The Cost Proposal must list the name and complete address of the Proposer in the upper left-hand corner.

Cost Proposal – SCAQMD anticipates awarding a fixed price contract. Cost information must be provided as listed below:

1. Detail must be provided by the following categories:

   A. Labor – The Cost Proposal must list the fully-burdened hourly rates and the total number of hours estimated for each level of professional and administrative staff to be used to perform the tasks required by this RFP. Costs should be estimated for each of the components of the work plan.

   B. Subcontractor Costs - List subcontractor costs and identify subcontractors by name. Itemize subcontractor charges per hour or per day.

   C. Travel Costs - Indicate amount of travel cost and basis of estimate to include trip destination, purpose of trip, length of trip, airline fare or mileage expense, per diem costs, lodging and car rental.

   D. Other Direct Costs -This category may include such items as postage and mailing expense, printing and reproduction costs, etc. Provide a basis of estimate for these costs.

2. It is the policy of the SCAQMD to receive "most favored customer status," which is defined to be at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services. SCAQMD will give preference, where appropriate, to vendors who certify that they will provide "most favored customer" status to the SCAQMD. To receive preference points, Proposer shall certify that SCAQMD is receiving "most favored customer" pricing in the Business Status Certifications page of Volume III, Attachment B – Certifications and Representations.

VOLUME III - CERTIFICATIONS AND REPRESENTATIONS (see Attachment B to this RFP)

SECTION VIII: PROPOSAL SUBMISSION

All proposals must be submitted according to specifications set forth in the section above, and this section. Failure to adhere to these specifications may be cause for rejection of the proposal.

Signature - All proposals must be signed by an authorized representative of the Proposer.

Due Date - **All proposals are due no later than 12:01 p.m., October 9, 2018, and should be directed to**:

Procurement Unit
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-3520

Submittal – Submit four (4) complete paper copies and an electronic copy of the proposal in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Proposer and the words "Request for Proposals P2019-02." The electronic copy of the proposal shall be submitted via a CD or a memory stick.

Late bids/proposals will not be accepted under any circumstances.

Grounds for Rejection - A proposal may be immediately rejected if:

- It is not prepared in the format described, or
- It is signed by an individual not authorized to represent the Firm.

Modification or Withdrawal - Once submitted, proposals cannot be altered without the prior written consent of SCAQMD. All proposals shall constitute firm offers and may not be withdrawn for a period of ninety (90) days following the last day to accept proposals.

SECTION IX: PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA

A. Proposals will be evaluated by a panel of three to five SCAQMD staff members familiar with the subject matter of the project. The panel shall be appointed by the Executive Officer or his designee. In addition, the evaluation panel may include such outside public sector or academic community expertise as deemed desirable by the Executive Officer. The panel will make a recommendation to the SCAQMD Governing Board for final selection of a contractor and negotiation of a contract.

B. Each member of the evaluation panel shall be accorded equal weight in his or her rating of proposals. The evaluation panel members shall evaluate the proposals according to the specified criteria and numerical weightings set forth below.

1. Proposal Evaluation Criteria

Understanding the Problem	10
Technical/Management Approach	20
Contractor Qualifications	20
Previous Experience on Similar Projects	20
Cost	30
TOTAL	100

Additional Points

Small Business or Small Business Joint Venture	10
DVBE or DVBE Joint Venture	10
Use of DVBE or Small Business Subcontractors	7
Low-Emission Vehicle Business	5
Local Business (Non-Federally Funded Projects Only)	5
Off-Peak Hours Delivery Business	2
Most Favored Customer	2

The cumulative points awarded for small business, DVBE, use of small business or DVBE subcontractors, low-emission vehicle business, local business, and off-peak hours delivery business shall not exceed 15 points. Most Favored Customer status incentive points shall be added, as applicable for a total of 17 points.

Self-Certification for Additional Points

The award of these additional points shall be contingent upon Proposer completing the Self-Certification section of Attachment B – Certifications and Representations and/or inclusion of a statement in the proposal self-certifying that Proposer qualifies for additional points as detailed above.

2. To receive additional points in the evaluation process for the categories of Small Business or Small Business Joint Venture, DVBE or DVBE Joint Venture or Local Business (for non-federally funded projects), the proposer must submit a self-certification or certification from the State of California Office of Small Business Certification and Resources at the time of proposal submission certifying that the proposer meets the requirements set forth in Section IV. To receive points for the use of DVBE and/or Small Business subcontractors, at least 25 percent of the total contract value must be subcontracted to DVBEs and/or Small Businesses. To receive points as a Low-Emission Vehicle Business, the proposer must demonstrate to the Executive Officer, or designee, that supplies and materials delivered to SCAQMD are delivered in vehicles that operate on either clean-fuels or if powered by diesel fuel, that the vehicles have particulate traps installed. To receive points as a Local Business, the proposer must affirm that it has an

ongoing business within the South Coast AQMD at the time of bid/proposal submittal and that 90% of the work related to the contract will be performed within the South Coast AQMD. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points. Federally funded projects are not eligible for local business incentive points. To receive points as an Off-Peak Hours Delivery Business, the proposer must submit, at proposal submission, certification of its commitment to delivering supplies and materials to SCAQMD between the hours of 10:00 a.m. and 3:00 p.m. To receive points for Most Favored Customer status, the proposer must submit, at proposal submission, certification of its commitment to provide most favored customer status to the SCAQMD. The cumulative points awarded for small business, DVBE, use of Small Business or DVBE Subcontractors, Local Business, Low-Emission Vehicle Business and Off-Peak Hour Delivery Business shall not exceed 15 points.

3. For procurement of Research and Development (R & D) projects or projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, technical factors including past experience shall be weighted at 70 points and cost shall be weighted at 30 points. A proposal must receive at least 56 out of 70 points on R & D projects and projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, in order to be deemed qualified for award.

4. The lowest cost proposal will be awarded the maximum cost points available and all other cost proposals will receive points on a prorated basis. For example if the lowest cost proposal is $1,000 and the maximum points available are 30 points, this proposal would receive the full 30 points. If the next lowest cost proposal is $1,100 it would receive 27 points reflecting the fact that it is 10% higher than the lowest cost (90% of 30 points = 27 points).

C. During the selection process the evaluation panel may wish to interview some proposers for clarification purposes only. No new material will be permitted at this time. Additional information provided during the bid review process is limited to clarification by the Proposer of information presented in his/her proposal, upon request by SCAQMD.

D. The Executive Officer or Governing Board may award the contract to a Proposer other than the Proposer receiving the highest rating in the event the Governing Board determines that another Proposer from among those technically qualified would provide the best value to SCAQMD considering cost and technical factors. The determination shall be based solely on the Evaluation Criteria contained in the Request for Proposal (RFP), on evidence provided in the proposal and on any other evidence provided during the bid review process.

E. Selection will be made based on the above-described criteria and rating factors. The selection will be made by and is subject to Executive Officer or Governing Board approval. Proposers may be notified of the results by letter.

F. The Governing Board has approved a Bid Protest Procedure which provides a process for a Bidder or prospective Bidder to submit a written protest to SCAQMD Procurement

Manager in recognition of two types of protests: Protest Regarding Solicitation and Protest Regarding Award of a Contract. Copies of the Bid Protest Policy can be secured through a request to SCAQMD Procurement Department.

G. The Executive Officer or Governing Board may award contracts to more than one proposer if in (his or their) sole judgment the purposes of the (contract or award) would best be served by selecting multiple proposers.

H. If additional funds become available, the Executive Officer or Governing Board may increase the amount awarded. The Executive Officer or Governing Board may also select additional proposers for a grant or contract if additional funds become available.

I. Disposition of Proposals – Pursuant to SCAQMD's Procurement Policy and Procedure, SCAQMD reserves the right to reject any or all proposals. All proposals become the property of SCAQMD, and are subject to the California Public Records Act. One copy of the proposal shall be retained for SCAQMD files. Additional copies and materials will be returned only if requested and at the proposer's expense.

J. If proposal submittal is for a Public Works project as defined by State of California Labor Code Section 1720, Proposer is required to include Contractor Registration No. in Attachment B. Proposal submittal will be deemed as non-responsive and Bidder may be disqualified if Contractor Registration No. is not included in Attachment B. Proposer is alerted to changes to California Prevailing Wage compliance requirements as defined in Senate Bill 854 (Stat. 2014, Chapter 28), and California Labor Code Sections 1770, 1771 and 1725.

SECTION X: FUNDING

The total funding for the work contemplated by this RFP shall not exceed $200,000.

SECTION XI: SAMPLE CONTRACT

A sample contract to carry out the work described in this RFP is available on SCAQMD's website at http://www.aqmd.gov/grants-bids or upon request from the RFP Contact Person (Section II).

ATTACHMENT A

PARTICIPATION IN THE PROCUREMENT PROCESS

A. It is the policy of South Coast Air Quality Management District (SCAQMD) to ensure that all businesses including minority business enterprises, women business enterprises, disabled veteran business enterprises and small businesses have a fair and equitable opportunity to compete for and participate in SCAQMD contracts.

B. Definitions:

The definition of minority, women or disadvantaged business enterprises set forth below is included for purposes of determining compliance with the affirmative steps requirement described in Paragraph G below on procurements funded in whole or in part with federal grant funds which involve the use of subcontractors. The definition provided for disabled veteran business enterprise, local business, small business enterprise, low-emission vehicle business and off-peak hours delivery business are provided for purposes of determining eligibility for point or cost considerations in the evaluation process.

1. "Women business enterprise" (WBE) as used in this policy means a business enterprise that meets all of the following criteria:

   a. a business that is at least 51 percent owned by one or more women, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or women.

   b. a business whose management and daily business operations are controlled by one or more women.

   c. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.

2. "Disabled veteran" as used in this policy is a United States military, naval, or air service veteran with at least 10 percent service-connected disability who is a resident of California.

3. "Disabled veteran business enterprise" (DVBE) as used in this policy means a business enterprise that meets all of the following criteria:

   a. is a sole proprietorship or partnership of which at least 51 percent is owned by one or more disabled veterans or, in the case of a publicly owned business, at least 51 percent of its stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.

b. the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.

c. is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.

4. "Local business" as used in this policy means a company that has an ongoing business within geographical boundaries of SCAQMD at the time of bid or proposal submittal and performs 90% of the work related to the contract within the geographical boundaries of SCAQMD and satisfies the requirements of subparagraph H below. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.

5. “Small business” as used in this policy means a business that meets the following criteria:

   a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:

      - A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars ($10,000,000) or less over the previous three years, or

      - A manufacturer with 100 or fewer employees.

   b. Manufacturer means a business that is both of the following:

      1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.

      2) Classified between Codes 311000 and 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.

6. "Joint ventures" as defined in this policy pertaining to certification means that one party to the joint venture is a DVBE or small business and owns at least 51 percent of the joint venture.

7. "Low-Emission Vehicle Business" as used in this policy means a company or contractor that uses low-emission vehicles in conducting deliveries to SCAQMD. Low-emission vehicles include vehicles powered by electric, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol, hydrogen and diesel retrofitted with particulate matter (PM) traps.

8. “Off-Peak Hours Delivery Business” as used in this policy means a company or contractor that commits to conducting deliveries to SCAQMD during off-peak traffic hours defined as between 10:00 a.m. and 3:00 p.m.

9. “Benefits Incentive Business” as used in this policy means a company or contractor that provides janitorial, security guard or landscaping services to SCAQMD and commits to providing employee health benefits (as defined below in Section VIII.D.2.d) for full time workers with affordable deductible and co-payment terms.

10. “Minority Business Enterprise” as used in this policy means a business that is at least 51 percent owned by one or more minority person(s), or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or minority persons.

    a. a business whose management and daily business operations are controlled by one or more minority persons.

    b. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.

    c. "Minority person" for purposes of this policy, means a Black American, Hispanic American, Native-American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian (including a person whose origins are from India, Pakistan, and Bangladesh), Asian-Pacific-American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan).

11. “Most Favored Customer” as used in this policy means that the SCAQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.

12. ”Disadvantaged Business Enterprise” as used in this policy means a business that is an entity owned and/or controlled by a socially and economically disadvantaged individual(s) as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d)(8% statute), respectively;
    a Small Business Enterprise (SBE);
    a Small Business in a Rural Area (SBRA);
    a Labor Surplus Area Firm (LSAF); or
    a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

C. Under Request for Quotations (RFQ), DVBEs, DVBE business joint ventures, small businesses, and small business joint ventures shall be granted a preference in an amount equal to 5% of the lowest cost responsive bid. Low-Emission Vehicle Businesses shall be granted a preference in an amount equal to 5 percent of the lowest cost responsive bid.

Off-Peak Hours Delivery Businesses shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid. Local businesses (if the procurement is not funded in whole or in part by federal grant funds) shall be granted a preference in an amount equal to 2% of the lowest cost responsive bid. Businesses offering Most Favored Customer status shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid.

D. Under Request for Proposals, DVBEs, DVBE joint ventures, small businesses, and small business joint ventures shall be awarded ten (10) points in the evaluation process. A non-DVBE or large business shall receive seven (7) points for subcontracting at least twenty-five (25%) of the total contract value to a DVBE and/or small business. Low-Emission Vehicle Businesses shall be awarded five (5) points in the evaluation process. On procurements which are not funded in whole or in part by federal grant funds local businesses shall receive five (5) points. Off-Peak Hours Delivery Businesses shall be awarded two (2) points in the evaluation process. Businesses offering Most Favored Customer status shall be awarded two (2) points in the evaluation process.

E. SCAQMD will ensure that discrimination in the award and performance of contracts does not occur on the basis of race, color, sex, national origin, marital status, sexual preference, creed, ancestry, medical condition, or retaliation for having filed a discrimination complaint in the performance of SCAQMD contractual obligations.

F. SCAQMD requires Contractor to be in compliance with all state and federal laws and regulations with respect to its employees throughout the term of any awarded contract, including state minimum wage laws and OSHA requirements.

G. When contracts are funded in whole or in part by federal funds, and if subcontracts are to be let, the Contractor must comply with the following, evidencing a good faith effort to solicit disadvantaged businesses. Contractor shall submit a certification signed by an authorized official affirming its status as a MBE or WBE, as applicable, at the time of contract execution. SCAQMD reserves the right to request documentation demonstrating compliance with the following good faith efforts prior to contract execution.

    1. Ensure Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

    2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

    3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and Local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

H. To the extent that any conflict exists between this policy and any requirements imposed by federal and state law relating to participation in a contract by a certified MBE/WBE/DVBE as a condition of receipt of federal or state funds, the federal or state requirements shall prevail.

I. When contracts are not funded in whole or in part by federal grant funds, a local business preference will be awarded. For such contracts that involve the purchase of commercial off-the-shelf products, local business preference will be given to suppliers or distributors of commercial off-the-shelf products who maintain an ongoing business within the geographical boundaries of SCAQMD. However, if the subject matter of the RFP or RFQ calls for the fabrication or manufacture of custom products, only companies performing 90% of the manufacturing or fabrication effort within the geographical boundaries of SCAQMD shall be entitled to the local business preference. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.

J. In compliance with federal fair share requirements set forth in 40 CFR Part 33, SCAQMD shall establish a fair share goal annually for expenditures with federal funds covered by its procurement policy.

ATTACHMENT B

South Coast
Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Business Information Request

Dear SCAQMD Contractor/Supplier:

South Coast Air Quality Management District (SCAQMD) is committed to ensuring that our contractor/supplier records are current and accurate. If your firm is selected for award of a purchase order or contract, it is imperative that the information requested herein be supplied in a timely manner to facilitate payment of invoices. In order to process your payments, we need the enclosed information regarding your account. **Please review and complete the information identified on the following pages, remember to sign all documents for our files, and return them as soon as possible to the address below:**

Attention: Accounts Payable, Accounting Department
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

If you do not return this information, we will not be able to establish you as a vendor. This will delay any payments and would still necessitate your submittal of the enclosed information to our Accounting department before payment could be initiated. Completion of this document and enclosed forms would ensure that your payments are processed timely and accurately.

If you have any questions or need assistance in completing this information, please contact Accounting at (909) 396-3777. We appreciate your cooperation in completing this necessary information.

Sincerely,

Sujata Jain
Asst. Deputy Executive Officer
Finance

DH:tm

Enclosures: Business Information Request
Disadvantaged Business Certification
W-9
Form 590 Withholding Exemption Certificate
Federal Contract Debarment Certification
Campaign Contributions Disclosure
Direct Deposit Authorization

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

BUSINESS INFORMATION REQUEST

Business Name	
Division of	
Subsidiary of	
Website Address	
Type of Business *Check One:*	☐ Individual ☐ DBA, Name _____, County Filed in _____ ☐ Corporation, ID No. _____ ☐ LLC/LLP, ID No. _____ ☐ Other _____

REMITTING ADDRESS INFORMATION

Address			
City/Town			
State/Province		Zip	
Phone	( ) - Ext	Fax	( ) -
Contact		Title	
E-mail Address			
Payment Name if Different			

All invoices must reference the corresponding Purchase Order Number(s)/Contract Number(s) if applicable and mailed to:

Attention: Accounts Payable, Accounting Department
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

BUSINESS STATUS CERTIFICATIONS

Federal guidance for utilization of disadvantaged business enterprises allows a vendor to be deemed a small business enterprise (SBE), minority business enterprise (MBE) or women business enterprise (WBE) if it meets the criteria below.

- is certified by the Small Business Administration or
- is certified by a state or federal agency or
- is an independent MBE(s) or WBE(s) business concern which is at least 51 percent owned and controlled by minority group member(s) who are citizens of the United States.

Statements of certification:

As a prime contractor to SCAQMD, (name of business) will engage in good faith efforts to achieve the fair share in accordance with 40 CFR Section 33.301, and will follow the six affirmative steps listed below **for contracts or purchase orders funded in whole or in part by federal grants and contracts.**

1. Place qualified SBEs, MBEs, and WBEs on solicitation lists.
2. Assure that SBEs, MBEs, and WBEs are solicited whenever possible.
3. When economically feasible, divide total requirements into small tasks or quantities to permit greater participation by SBEs, MBEs, and WBEs.
4. Establish delivery schedules, if possible, to encourage participation by SBEs, MBEs, and WBEs.
5. Use services of Small Business Administration, Minority Business Development Agency of the Department of Commerce, and/or any agency authorized as a clearinghouse for SBEs, MBEs, and WBEs.
6. If subcontracts are to be let, take the above affirmative steps.

Self-Certification Verification: Also for use in awarding additional points, as applicable, in accordance with SCAQMD Procurement Policy and Procedure:

Check all that apply:

☐ Small Business Enterprise/Small Business Joint Venture
☐ Local business
☐ Minority-owned Business Enterprise
☐ Women-owned Business Enterprise
☐ Disabled Veteran-owned Business Enterprise/DVBE Joint Venture
☐ Most Favored Customer Pricing Certification

Percent of ownership: _____ %

Name of Qualifying Owner(s): _____ _____

State of California Public Works Contractor Registration No. _____. MUST BE INCLUDED IF BID PROPOSAL IS FOR PUBLIC WORKS PROJECT.

I, the undersigned, hereby declare that to the best of my knowledge the above information is accurate. Upon penalty of perjury, I certify information submitted is factual.

_____ _____
NAME ***TITLE***

_____ _____
TELEPHONE NUMBER ***DATE***

Definitions

Disabled Veteran-Owned Business Enterprise means a business that meets all of the following criteria:

- is a sole proprietorship or partnership of which is at least 51 percent owned by one or more disabled veterans, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.
- the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.
- is a sole proprietorship, corporation, partnership, or joint venture with its primary headquarters office located in the United States and which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.

Joint Venture means that one party to the joint venture is a DVBE and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that DVBE will receive at least 51 percent of the project dollars.

Local Business means a business that meets all of the following criteria:

- has an ongoing business within the boundary of SCAQMD at the time of bid application.
- performs 90 percent of the work within SCAQMD's jurisdiction.

Minority-Owned Business Enterprise means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more minority persons or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more minority persons.
- is a business whose management and daily business operations are controlled or owned by one or more minority person.
- is a business which is a sole proprietorship, corporation, partnership, joint venture, an association, or a cooperative with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

"Minority" person means a Black American, Hispanic American, Native American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian American (including a person whose origins are from India, Pakistan, or Bangladesh), Asian-Pacific American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, or Taiwan).

Small Business Enterprise means a business that meets the following criteria:

a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:

   - **A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars ($10,000,000) or less over the previous three years, or**
   - A manufacturer with 100 or fewer employees.

b. Manufacturer means a business that is both of the following:

   1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.

   2) Classified between Codes 311000 to 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.

Small Business Joint Venture means that one party to the joint venture is a Small Business and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that the Small Business will receive at least 51 percent of the project dollars.

Women-Owned Business Enterprise means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more women or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more women.
- is a business whose management and daily business operations are controlled or owned by one or more women.
- is a business which is a sole proprietorship, corporation, partnership, or a joint venture, with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

Most Favored Customer as used in this policy means that the SCAQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.

Form **W-9**
(Rev. November 2017)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ **Go to *www.irs.gov/FormW9* for instructions and the latest information.**

Give Form to the requester. Do not send to the IRS.

Print or type. See **Specific Instructions** on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is **not** disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

Requester's name and address (optional)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN,* later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer identification number

		–							

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here **Signature of U.S. person ▶** **Date ▶**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9.*

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and

4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting,* later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,

2. You do not certify your TIN when required (see the instructions for Part II for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code,* later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships,* earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code,* later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)

2—The United States or any of its agencies or instrumentalities

3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

4—A foreign government or any of its political subdivisions, agencies, or instrumentalities

5—A corporation

6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession

7—A futures commission merchant registered with the Commodity Futures Trading Commission

8—A real estate investment trust

9—An entity registered at all times during the tax year under the Investment Company Act of 1940

10—A common trust fund operated by a bank under section 584(a)

11—A financial institution

12—A middleman known in the investment community as a nominee or custodian

13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over $600 required to be reported and direct sales over $5,000[1]	Generally, exempt payees 1 through 5[2]
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester,* later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at *www.SSA.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/Businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. Go to *www.irs.gov/Forms* to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to *www.irs.gov/OrderForms* to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code,* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account[1]
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor[2]
5. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee[1] The actual owner[1]
6. Sole proprietorship or disregarded entity owned by an individual	The owner[3]
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	**Give name and EIN of:**
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity[4]
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships,* earlier.

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov*. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at *spam@uce.gov* or report them at *www.ftc.gov/complaint*. You can contact the FTC at *www.ftc.gov/idtheft* or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see *www.IdentityTheft.gov* and Pub. 5027.

Visit *www.irs.gov/IdentityTheft* to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

TAXABLE YEAR | CALIFORNIA FORM

2018 Withholding Exemption Certificate 590

The payee completes this form and submits it to the withholding agent. The withholding agent keeps this form with their records.

Withholding Agent Information

Name

Payee Information

Name | ☐ SSN or ITIN ☐ FEIN ☐ CA Corp no. ☐ CA SOS file no.

Address (apt./ste., room, PO box, or PMB no.)

City (If you have a foreign address, see instructions.) | State | ZIP code

Exemption Reason

Check only one box.

By checking the appropriate box below, the payee certifies the reason for the exemption from the California income tax withholding requirements on payment(s) made to the entity or individual.

☐ **Individuals — Certification of Residency:**
I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.

☐ **Corporations:**
The corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.

☐ **Partnerships or Limited Liability Companies (LLCs):**
The partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.

☐ **Tax-Exempt Entities:**
The entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 _____ (insert letter) or Internal Revenue Code Section 501(c) _____ (insert number). If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.

☐ **Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit-Sharing Plans:**
The entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.

☐ **California Trusts:**
At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return. If the trustee or noncontingent beneficiary becomes a nonresident at any time, I will promptly notify the withholding agent.

☐ **Estates — Certification of Residency of Deceased Person:**
I am the executor of the above-named person's estate or trust. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return.

☐ **Nonmilitary Spouse of a Military Servicemember:**
I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

CERTIFICATE OF PAYEE: Payee must complete and sign below.

To learn about your privacy rights, how we may use your information, and the consequences for not providing the requested information, go to **ftb.ca.gov/forms** and search for **1131**. To request this notice by mail, call 800.852.5711.

Under penalties of perjury, I declare that I have examined the information on this form, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. I further declare under penalties of perjury that if the facts upon which this form are based change, I will promptly notify the withholding agent.

Type or print payee's name and title _____ Telephone (_____)_____

Payee's signature ▶ _____ Date _____

7061183 Form 590 2017

2017 Instructions for Form 590

Withholding Exemption Certificate

References in these instructions are to the California Revenue and Taxation Code (R&TC).

General Information

Registered Domestic Partners (RDP) – For purposes of California income tax, references to a spouse, husband, or wife also refer to a Registered Domestic Partner (RDP) unless otherwise specified. For more information on RDPs, get FTB Pub. 737, Tax Information for Registered Domestic Partners.

A Purpose

Use Form 590, Withholding Exemption Certificate, to certify an exemption from nonresident withholding.

Form 590 does not apply to payments of backup withholding. For more information, go to **ftb.ca.gov** and search for **backup withholding**.

Form 590 does not apply to payments for wages to employees. Wage withholding is administered by the California Employment Development Department (EDD). For more information, go to **edd.ca.gov** or call **888**.745.3886.

Do not use Form 590 to certify an exemption from withholding if you are a **Seller of California real estate**. Sellers of California real estate use Form 593-C, Real Estate Withholding Certificate, to claim an exemption from the real estate withholding requirement.

The following are excluded from withholding and completing this form:

- The United States and any of its agencies or instrumentalities.
- A state, a possession of the United States, the District of Columbia, or any of its political subdivisions or instrumentalities.
- A foreign government or any of its political subdivisions, agencies, or instrumentalities.

B Income Subject to Withholding

California Revenue and Taxation Code (R&TC) Section 18662 requires withholding of income or franchise tax on payments of California source income made to nonresidents of California.

Withholding is required on the following, but is not limited to:

- Payments to nonresidents for services rendered in California.
- Distributions of California source income made to domestic nonresident partners, members, and S corporation shareholders and allocations of California source income made to foreign partners and members.
- Payments to nonresidents for rents if the payments are made in the course of the withholding agent's business.
- Payments to nonresidents for royalties from activities sourced to California.
- Distributions of California source income to nonresident beneficiaries from an estate or trust.
- Endorsement payments received for services performed in California.
- Prizes and winnings received by nonresidents for contests in California.

However, withholding is optional if the total payments of California source income are $1,500 or less during the calendar year.

For more information on withholding get FTB Pub. 1017, Resident and Nonresident Withholding Guidelines. To get a withholding publication, see Additional Information.

C Who Certifies this Form

Form 590 is certified by the payee. California residents or entities exempt from the withholding requirement should complete Form 590 and submit it to the withholding agent before payment is made. The withholding agent is then relieved of the withholding requirements if the agent relies in good faith on a completed and signed Form 590 unless notified by the Franchise Tax Board (FTB) that the form should not be relied upon.

An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number (TIN). The withholding agent must retain a copy of the certificate or substitute for at least five years after the last payment to which the certificate applies, and provide it upon request to the FTB.

If an entertainer (or the entertainer's business entity) is paid for a performance, the entertainer's information must be provided. **Do not** submit the entertainer's agent or promoter information.

The grantor of a grantor trust shall be treated as the payee for withholding purposes. Therefore, if the payee is a grantor trust and one or more of the grantors is a nonresident, withholding is required. If all of the grantors on the trust are residents, no withholding is required. Resident grantors can check the box on Form 590 labeled "Individuals — Certification of Residency."

D Definitions

For California nonwage withholding purposes, **nonresident** includes all of the following:

- Individuals who are not residents of California.
- Corporations not qualified through the California Secretary of State (CA SOS) to do business in California or having no permanent place of business in California.
- Partnerships or limited liability companies (LLCs) with no permanent place of business in California.
- Any trust without a resident grantor, beneficiary, or trustee, or estates where the decedent was not a California resident.

Foreign refers to non-U.S.

For more information about determining resident status, get FTB Pub. 1031, Guidelines for Determining Resident Status. Military servicemembers have special rules for residency. For more information, get FTB Pub. 1032, Tax Information for Military Personnel.

Permanent Place of Business:
A corporation has a permanent place of business in California if it is organized and existing under the laws of California or it has qualified through the CA SOS to transact intrastate business. A corporation that has not qualified to transact intrastate business (e.g., a corporation engaged exclusively in interstate commerce) will be considered as having a permanent place of business in California only if it maintains a permanent office in California that is permanently staffed by its employees.

E Military Spouse Residency Relief Act (MSRRA)

Generally, for tax purposes you are considered to maintain your existing residence or domicile. If a military servicemember and nonmilitary spouse have the same state of domicile, the MSRRA provides:

- A spouse shall not be deemed to have lost a residence or domicile in any state solely by reason of being absent to be with the servicemember serving in compliance with military orders.
- A spouse shall not be deemed to have acquired a residence or domicile in any other state solely by reason of being there to be with the servicemember serving in compliance with military orders.

Domicile is defined as the one place:

- Where you maintain a true, fixed, and permanent home.
- To which you intend to return whenever you are absent.

A military servicemember's nonmilitary spouse is considered a nonresident for tax purposes if the servicemember and spouse have the same domicile outside of California and the spouse is in California solely to be with the servicemember who is serving in compliance with Permanent Change of Station orders.

California may require nonmilitary spouses of military servicemembers to provide proof that they meet the criteria for California personal income tax exemption as set forth in the MSRRA.

Income of a military servicemember's nonmilitary spouse for services performed in California is not California source income subject to state tax if the spouse is in California to be with the servicemember serving in compliance with military orders, and the servicemember and spouse have the same domicile in a state other than California.

For additional information or assistance in determining whether the applicant meets the MSRRA requirements, get FTB Pub. 1032.

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

Enter the payee's information, including the TIN and check the appropriate TIN box.

You must provide a valid TIN as requested on this form. The following are acceptable TINs: social security number (SSN); individual taxpayer identification number (ITIN); federal employer identification number (FEIN); California corporation number (CA Corp no.); or CA SOS file number.

Private Mail Box (PMB) – Include the PMB in the address field. Write "PMB" first, then the box number. Example: 111 Main Street PMB 123.

Foreign Address – Follow the country's practice for entering the city, county, province, state, country, and postal code, as applicable, in the appropriate boxes. **Do not** abbreviate the country name.

Exemption Reason – Check the box that reflects the reason why the payee is exempt from the California income tax withholding requirement.

Withholding Agent Instructions

Do not send this form to the FTB. The withholding agent retains this form for a minimum of five years or until the payee's status changes, and must provide this form to the FTB upon request.

The payee must notify the withholding agent if any of the following situations occur:

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.
- The partnership ceases to have a permanent place of business in California.
- The LLC ceases to have a permanent place of business in California.
- The tax-exempt entity loses its tax-exempt status.

If any of these situations occur, then withholding may be required. For more information, get Form 592, Resident and Nonresident Withholding Statement, Form 592-B, Resident and Nonresident Withholding Tax Statement, and Form 592-V, Payment Voucher for Resident and Nonresident Withholding.

Additional Information

Website:	For more information go to **ftb.ca.gov** and search for **nonwage**. **MyFTB** offers secure online tax account information and services. For more information and to register, go to **ftb.ca.gov** and search for **myftb**.
Telephone:	**888**.792.4900 or 916.845.4900, Withholding Services and Compliance phone service
Fax:	916.845.9512
Mail:	WITHHOLDING SERVICES AND COMPLIANCE MS F182 FRANCHISE TAX BOARD PO BOX 942867 SACRAMENTO CA 94267-0651

For questions unrelated to withholding, or to download, view, and print California tax forms and publications, or to access the TTY/TDD numbers, see the information below.

Internet and Telephone Assistance

Website:	**ftb.ca.gov**
Telephone:	800.852.5711 from within the United States 916.845.6500 from outside the United States
TTY/TDD:	800.822.6268 for persons with hearing or speech impairments

Asistencia Por Internet y Teléfono

Sitio web:	**ftb.ca.gov**
Teléfono:	800.852.5711 dentro de los Estados Unidos 916.845.6500 fuera de los Estados Unidos
TTY/TDD:	800.822.6268 para personas con discapacidades auditivas o de habla

Certification Regarding
Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and the principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statute or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property:

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to 5 years, or both.

_____

Typed Name & Title of Authorized Representative

_____

Signature of Authorized Representative Date

❑ I am unable to certify to the above statements. My explanation is attached.

CAMPAIGN CONTRIBUTIONS DISCLOSURE

In accordance with California law, bidders and contracting parties are required to disclose, at the time the application is filed, information relating to any campaign contributions made to South Coast Air Quality Management District (SCAQMD) Board Members or members/alternates of the MSRC, including: the name of the party making the contribution (which includes any parent, subsidiary or otherwise related business entity, as defined below), the amount of the contribution, and the date the contribution was made. 2 C.C.R. §18438.8(b).

California law prohibits a party, or an agent, from making campaign contributions to SCAQMD Governing Board Members or members/alternates of the Mobile Source Air Pollution Reduction Review Committee (MSRC) of more than $250 while their contract or permit is pending before SCAQMD; and further prohibits a campaign contribution from being made for three (3) months following the date of the final decision by the Governing Board or the MSRC on a donor's contract or permit. Gov't Code §84308(d). For purposes of reaching the $250 limit, the campaign contributions of the bidder or contractor *plus* contributions by its parents, affiliates, and related companies of the contractor or bidder are added together. 2 C.C.R. §18438.5.

In addition, SCAQMD Board Members or members/alternates of the MSRC must abstain from voting on a contract or permit if they have received a campaign contribution from a party or participant to the proceeding, or agent, totaling more than $250 in the 12-month period prior to the consideration of the item by the Governing Board or the MSRC. Gov't Code §84308(c).

The list of current SCAQMD Governing Board Members can be found at SCAQMD website (www.aqmd.gov). The list of current MSRC members/alternates can be found at the MSRC website (http://www.cleantransportationfunding.org).

SECTION I.

Contractor (Legal Name): _____

DBA, Name _____, County Filed in_____

Corporation, ID No._____

LLC/LLP, ID No. _____

List any parent, subsidiaries, or otherwise affiliated business entities of Contractor: ***(See definition below).***

_____

_____

SECTION II.

Has Contractor and/or any parent, subsidiary, or affiliated company, or agent thereof, made a campaign contribution(s) totaling $250 or more in the aggregate to a current member of the South Coast Air Quality Management Governing Board or member/alternate of the MSRC in the 12 months preceding the date of execution of this disclosure?

☐ Yes ☐ No **If YES, complete Section II below and then sign and date the form. If NO, sign and date below. Include this form with your submittal.**

Campaign Contributions Disclosure, *continued:*

Name of Contributor _____

Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

I declare the foregoing disclosures to be true and correct.

By: _____

Title: _____

Date: _____

DEFINITIONS

Parent, Subsidiary, or Otherwise Related Business Entity (2 Cal. Code of Regs., §18703.1(d).)

(1) Parent subsidiary. A parent subsidiary relationship exists when one corporation directly or indirectly owns shares possessing more than 50 percent of the voting power of another corporation.

(2) Otherwise related business entity. Business entities, including corporations, partnerships, joint ventures and any other organizations and enterprises operated for profit, which do not have a parent subsidiary relationship are otherwise related if any one of the following three tests is met:

- (A) One business entity has a controlling ownership interest in the other business entity.
- (B) There is shared management and control between the entities. In determining whether there is shared management and control, consideration should be given to the following factors:
  - (i) The same person or substantially the same person owns and manages the two entities;
  - (ii) There are common or commingled funds or assets;
  - (iii) The business entities share the use of the same offices or employees, or otherwise share activities, resources or personnel on a regular basis;
  - (iv) There is otherwise a regular and close working relationship between the entities; or
- (C) A controlling owner (50% or greater interest as a shareholder or as a general partner) in one entity also is a controlling owner in the other entity.

South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Direct Deposit Authorization

STEP 1: Please check all the appropriate boxes

- ☐ Individual (Employee, Governing Board Member)
- ☐ Vendor/Contractor
- ☐ Changed Information
- ☐ New Request
- ☐ Cancel Direct Deposit

STEP 2: Payee Information

Last Name	First Name	Middle Initial	Title

Vendor/Contractor Business Name (if applicable)

Address	Apartment or P.O. Box Number

City	State	Zip	Country

Taxpayer ID Number	Telephone Number	Email Address

Authorization

1. I authorize South Coast Air Quality Management District (SCAQMD) to direct deposit funds to my account in the financial institution as indicated below. I understand that the authorization may be rejected or discontinued by SCAQMD at any time. If any of the above information changes, I will promptly complete a new authorization agreement. If the direct deposit is not stopped before closing an account, funds payable to me will be returned to SCAQMD for distribution. This will delay my payment.
2. This authorization remains in effect until SCAQMD receives written notification of changes or cancellation from you.
3. I hereby release and hold harmless SCAQMD for any claims or liability to pay for any losses or costs related to insufficient fund transactions that result from failure within the Automated Clearing House network to correctly and timely deposit monies into my account.

STEP 3:

You must verify that your bank is a member of an Automated Clearing House (ACH). Failure to do so could delay the processing of your payment. You must attach a voided check or have your bank complete the bank information and the account holder must sign below.

To be Completed by your Bank

Staple Voided Check Here

Name of Bank/Institution		
Account Holder Name(s)		
☐ Saving ☐ Checking	Account Number	Routing Number
Bank Representative Printed Name	Bank Representative Signature	Date
ACCOUNT HOLDER SIGNATURE:		Date

For SCAQMD Use Only Input By _____ Date _____

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 7

PROPOSAL: Appropriate Funds and Execute Contract for Planning, Organizing, and Facilitating SCAQMD's Martin Luther King, Jr. Day of Service Forum and Cesar Chavez Day of Remembrance

SYNOPSIS: On June 1, 2018, the Board approved release of an RFP to solicit proposals for planning, organizing, and facilitating two annual air quality events. Three proposals were submitted to the Administrative Committee for consideration at its July 13, 2018 meeting. After the Committee interviewed representatives of each of the firms, Lee Andrews Group was selected for recommendation to the full Board, and the Committee recommended a three-year contract. This action is to appropriate funding to Legislative, Public Affairs & Media's FY 2018-19 Budget and execute a three-year contract with Lee Andrews Group in an amount not to exceed $150,000 per year.

COMMITTEE: Administrative, July 13, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Appropriate $150,000 from the General Fund, Undesignated Fund Balance, to the Legislative, Public Affairs & Media FY 2018-19 budget, Services and Supplies Major Object, Professional and Special Services account.
2. Authorize the Chairman to execute a contract with Lee Andrews Group for planning, organizing, and facilitating two annual air quality events, in an amount not to exceed $150,000 from Legislative, Public Affairs & Media FY 2018-19 budget, Services and Supplies Major Object, Professional and Special Services account.

Wayne Nastri
Executive Officer

DJA:FW:RAR

Background

For the last four years, SCAQMD has annually hosted two separate events: Martin Luther King, Jr. Day of Service Forum, and Cesar Chavez Day of Remembrance. Board Members, students, individuals from across the region, and civil rights activists from various communities attend the events. SCAQMD's engagement with the public

through these events enables diverse members of the community to come together to commemorate social and environmental progress. These events also provide SCAQMD with an opportunity to educate and provide information to attendees on ways we can work together to improve air quality.

Outreach
In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFP and inviting bids was published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders were also notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFP was emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (http://www.aqmd.gov).

Bid Evaluation
Three proposals were received in response to the RFP. The proposals were evaluated and scored by a three-member evaluation panel. The three proposals were considered technically qualified and forwarded to the Administrative Committee for its consideration. The Attachment presents the scores and total costs for the proposals received.

The evaluation panel consisted of the following SCAQMD staff: one (1) Assistant Deputy Executive Officer, one (1) Community Relations Manager, and one (1) Senior Public Information Specialist. Of the three panelists, two were African-American, and one Caucasian; two male, and one female.

Proposal
The Administrative Committee interviewed the three firms: Evan Brooks Associates, Inc., Fruition Consulting and Lee Andrews Group. After the interviews were concluded, the committee recommended the Board authorize the execution of a contract with the Lee Andrews Group for a three-year period.

Resource Impacts
Upon approval, sufficient funding will be available in the Legislative, Public Affairs & Media FY 2018-19 budget, Services and Supplies Major Object. Funding for the remaining two years of the contract will be included in the Legislative, Public Affairs & Media annual budget requests.

Attachment
RFP #P2018-14 Scores and Cost Matrix

RFP #P2018-14 Scores and Cost Matrix

Proposal	Technical Score	Cost	Cost Points	Additional Points	Total Score
Fruition Consulting	57	$137,525	29.4	17	103.4
Evan Brooks Associates, Inc.	56	$135,000	30.0	15	101.0
Lee Andrews Group	67	$150,000	26.7	15	108.7

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 8

PROPOSAL: Issue RFP for Legislative Representation in Washington, D.C.

SYNOPSIS: The current contracts for legislative representation in Washington, D.C. expire on January 14, 2019. This action is to issue an RFP for legislative representation and consulting services for SCAQMD in Washington, D.C. for 2019. The RFP will also indicate that the contract(s) may be extended for up to two additional one-year terms.

COMMITTEE: Administrative, July 13, 2018; Recommended for Approval

RECOMMENDED ACTION:
Approve release of RFP #P2019-03 to solicit proposals for legislative representation in Washington, D.C. at a cost not to exceed $440,000 for the initial one-year period.

Wayne Nastri
Executive Officer

DJA:LTO:RAR

Background
As one of the largest air quality regulatory agencies in the United States and a leader in air quality innovation, the SCAQMD is an important contributor to the national policymaking discussions relevant to air quality related issues. SCAQMD requires representation in Washington, D.C. to ensure that SCAQMD's input and policy priorities are conveyed in a timely and effective manner during the federal legislative and policy-setting process. It is critical that SCAQMD be involved in policy development relating to federal air quality legislation, federal Clean Air Act implementation, subvention funding and special grants, and other related issues, and that all these issues are closely monitored.

Staff recommends continuing direct representation and advocacy of SCAQMD's policy positions on environmental issues in Washington, D.C. The current SCAQMD contracts for legislative representation in Washington, D.C. expire on January 14, 2019. Much of the 2019 SCAQMD legislative goals and objectives in Washington, D.C. will depend on the outcome of the 2018 legislative session. However, many of the prior

years' program elements are expected to continue and be built upon in the coming session in Washington, D.C. This ongoing presence at the federal level is essential for the achievement of meaningful progress. As a reference, the 2019 legislative goals and objectives may be broadly divided into four categories: working closely with the federal government to have the U.S. EPA effectively address mobile sources which are primarily under their jurisdiction; pursuing appropriation requests or other funding opportunities to support clean technology advancement and fleet conversion, alternative fuel infrastructure and ambient monitoring programs; policy advocacy to further the pursuit of clean air objectives, the reduction of toxic emissions, and climate change initiatives with emphasis on co-benefits at the federal level; and policy advocacy regarding the federal offset requirements under the Clean Air Act.

The 2019 SCAQMD legislative goals and objectives in Washington, D.C. will be focused on facilitating attainment of federal clean air standards within the South Coast region largely through work with Congress, the White House, federal, state and local agencies, business, environmental and community groups, and other stakeholders. The 2019 legislative priorities will likely include the following:

Technology Advancement
Maintain and/or expand funding opportunities for advanced clean technologies and clean air research, development, demonstration and deployment programs, including those related to:

- Zero- and near-zero emission technologies;
- Clean vehicles (such as light-, medium- and heavy-duty vehicles, locomotives, marine vessels, and aircraft technologies), clean fuels and refueling technologies and infrastructure;
- Clean energy sources;
- Implementation of the AQMP; and
- Implementation of the Community Air Toxics Initiatives and AB 617.

Marine Vessels
Pursue legislative and/or administrative policies that will further reduce marine vessel emissions and ensure, through regulatory and/or incentive-based policies that the cleanest-operating vessels come to U.S. and California ports.

Surface Transportation & Goods Movement
Enhance the provisions of surface transportation reauthorization legislation (i.e., successor legislation to the MAP-21 law) to better include air quality considerations as approved by the Board.

Locomotives
Pursue efforts to reduce locomotive emissions, through regulatory and/or incentive-based policies.

Reduction of Toxic Emissions
Expand funding under the Diesel Emission Reduction Act, and Targeted Airshed Grants, and through other legislative and administrative programs, to reduce toxic emissions, and the public's exposure to toxic emissions, within the South Coast region.

Clean Air Act
Ensure adequate SCAQMD authority and fairness for Southern California under the federal Clean Air Act (CAA) and extend or enhance SCAQMD's subvention funding under CAA Sections 103 and 105.

National Ambient Air Quality Standards and SIP
Support policies that protect science-driven and health-based determinations of national ambient air quality standards.

Support legislation and/or administrative efforts to streamline and provide flexible implementation of SIP requirements, as needed, to ensure feasibility of attainment.

Climate Change
Seek to influence climate change initiatives and facilitate their implementation at the local level, to promote co-benefits with criteria pollutants and air toxics reduction, consistent with the Board's policy.

Ultra Low NOx Standard for Heavy Duty Trucks
Pursue U.S. Environmental Protection Agency rulemaking for Ultra Low NOx Standard for Heavy-Duty Trucks to establish a national standard which will significantly improve air quality and establish confidence among the heavy-duty vehicle manufacturers to continue investment in the research, development, demonstration and production of cleaner engines.

New Source Review Offsets
Modernize federal New Source Review offset requirements for areas where the supply of offsets is inadequate, while furthering the pursuit of clean air objectives.

Environmental Justice
Support legislation which promotes environmental justice initiatives that will reduce localized health risks, develop clean air technologies that directly benefit disproportionately impacted communities, and enhance community participation in decision-making.

The 2019 legislative priorities for SCAQMD will be further refined and presented to the Board's Legislative Committee and the full Board for approval later in the year, as determined by the course of events in 2018.

Proposal
SCAQMD seeks the services of a contractor or contractors to support the SCAQMD Board's goals and objectives for 2019 in Washington D.C. The selected firm(s) will be expected to provide a variety of services consistent with Board direction. Total funding for the initial year shall be up to a maximum amount of $440,000. The contract(s) may include an option for two annual renewals, contingent on satisfactory performance and approval of subsequent budgets, at the SCAQMD Board's discretion.

Bid Evaluation
Proposals received will be initially evaluated by a diverse panel of qualified individuals according to the criteria described in the attached RFP #P2019-03. The Legislative Committee of the Board is expected to conduct oral interviews of the most highly qualified bidders and will make a recommendation to the full Board for approval.

Outreach
In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFP and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, Riverside County's Press Enterprise, Politico and The Hill newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders may be notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFP will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (http://www.aqmd.gov) where it can be viewed by making the selection "Grants & Bids."

Resource Impacts
The funding for the first year is available in the Legislative & Public Affairs FY 2018-19 Budget. Funding for the two optional one-year extensions is contingent upon Board approval for the respective fiscal years.

Attachment
RFP #P2019-03 for Legislative Representation in Washington, D.C.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

REQUEST FOR PROPOSALS

FOR LEGISLATIVE REPRESENTATION IN WASHIGTON, D.C.

P2019-03

South Coast Air Quality Management District (SCAQMD) requests proposals for the following purpose according to terms and conditions attached. In the preparation of this Request for Proposals (RFP) the words "Proposer," "Contractor," "Consultant," "Bidder" and "Firm" are used interchangeably.

PURPOSE

SCAQMD requires representation in Washington, D.C. to ensure that SCAQMD's input and policy priorities are conveyed in a timely and effective manner during the federal legislative and policy-setting process. It is critical that SCAQMD be involved in policy development relating to federal air quality legislation, federal Clean Air Act implementation, subvention funding and special grants, and other related issues, and that all these issues are closely monitored.

The intent of this RFP is for SCAQMD to contract with outside representative(s) knowledgeable in air quality-related issues to provide assistance with and representation of SCAQMD policy positions and funding needs before the Congress, the White House and federal agencies. Consultant(s) shall be paid on a monthly basis for services rendered at an agreed upon Flat Monthly Fee and actual costs incurred for out-of-pocket expenses. The current SCAQMD contracts for legislative representation in Washington, D.C. expire on January 14, 2019.

The selected firm(s) will be expected to provide a variety of services, to be outlined in the work statement, and consistent with SCAQMD Governing Board direction. Total funding for the initial year shall be up to a maximum amount of $440,000. The contract(s) may include an option for two annual renewals, contingent on satisfactory performance and approval of subsequent budgets, at the SCAQMD Board's discretion.

INDEX - The following are contained in this RFP:

SECTION I: BACKGROUND/INFORMATION

From time to time, SCAQMD requires the assistance of outside counsel having special expertise and experience as one of the largest air quality regulatory agencies in the United States and a leader in air quality innovations, SCAQMD is an important contributor to the national policymaking discussions relevant to air quality related issues. Given the fluid activity in Congress, the Administration and within federal agencies on air quality matters, our mandates to achieve National Ambient Air Quality Standards, and the large portion of federally regulated sources of pollution that challenge our ability to achieve attainment in the South Coast region, it is imperative that SCAQMD maintain a strong presence in Washington, D.C. Thus, SCAQMD seeks a contractual agreement with consultant(s) to support the SCAQMD Governing Board's Federal Legislative goals and objectives for 2019 in Washington D.C., in accordance with the requirements of this RFP.

Much of the 2019 SCAQMD legislative goals and objectives in Washington, D.C. will depend on the outcome of the 2018 legislative session. However, many of the prior years' program elements are expected to continue and be built upon in the coming session in Washington, D.C. This ongoing presence at the federal level is essential for the achievement of meaningful progress. As a reference, the 2019 legislative goals and objectives may be broadly divided into four categories: working closely with the federal government to have the U.S. Environmental Protection Agency effectively address mobile sources which are primarily under their jurisdiction; pursuing appropriation requests or other funding opportunities to support clean technology advancement, fleet conversion, alternative fuel infrastructure and ambient monitoring programs; policy advocacy to further the pursuit of clean air objectives, the reduction of toxic emissions, and climate change initiatives with emphasis on co-benefits at the federal level; and policy advocacy to modernize the federal offset requirements under the Clean Air Act.

The 2019 SCAQMD legislative goals and objectives in Washington, D.C. will be focused on facilitating attainment of federal clean air standards within the South Coast region largely through work with Congress, the White House, federal, state and local agencies, business, environmental and community groups, and other stakeholders. The 2019 legislative priorities will likely include the following:

Technology Advancement

Maintain and/or expand funding opportunities for advanced clean technologies and clean air research, development, demonstration and deployment programs, including those related to:

- Zero- and near-zero emission technologies;
- Clean vehicles (such as light-, medium- and heavy-duty vehicles, locomotives, marine vessels, and aircraft technologies), clean fuels and refueling technologies and infrastructure;
- Clean energy sources;
- Implementation of Board-approved Air Quality Management Plan; and
- Implementation of Community Air Toxics Initiatives.

Marine Vessels
Pursue legislative and/or administrative policies that will further reduce marine vessel emissions and will ensure, through regulatory and/or incentive-based policies that the cleanest-operating vessels come to U.S. ports.

Surface Transportation & Goods Movement
Enhance the provisions of surface transportation reauthorization legislation (i.e., successor legislation to the MAP-21 law) to better include air quality considerations as approved by the Board.

Locomotives
Pursue efforts to reduce locomotive emissions, through regulatory and/or incentive-based policies.

Reduction of Toxic Emissions
Expand funding under the Diesel Emission Reduction Act and Targeted Airshed Grants, and through other legislative and administrative programs, to reduce toxic emissions, and the public's exposure to toxic emissions, within the South Coast region.

Clean Air Act
Ensure adequate SCAQMD authority and fairness for Southern California under the federal Clean Air Act (CAA) and extend or enhance SCAQMD's subvention funding under CAA Sections 103 and 105.

National Ambient Air Quality Standards and SIP
Support policies that protect science-driven and health-based determinations of national ambient air quality standards.

Support legislation and/or administrative efforts to streamline and provide flexible implementation of SIP requirements, as needed, to ensure feasibility of attainment.

Climate Change
Seek to influence climate change initiatives and facilitate their implementation at local levels, to promote co-benefits with NAAQS and air toxics reduction, consistent with the Board's policy.

Ultra Low NOx Standard for Heavy Duty Trucks
Pursue U.S. Environmental Protection Agency rulemaking for Ultra Low NOx Standard for Heavy Duty Trucks to establish a national standard which will significantly improve air quality and establish confidence among the heavy duty vehicle manufacturers to continue investment in the research, development, demonstration and production of cleaner engines.

New Source Review Offsets
Modernize federal New Source Review offset requirements for areas where the supply of offsets is inadequate, while furthering the pursuit of clean air objectives.

Environmental Justice
Support legislation which promotes environmental justice initiatives that will reduce localized health risks, develop clean air technologies that directly benefits disproportionately impacted communities, and enhance community participation in decision-making.

The 2019 legislative priorities for SCAQMD will be further refined and presented to the Board's Legislative Committee and the full Board for approval later in the year, as determined by the course of events in 2018.

SECTION II: CONTACT PERSON:

Questions regarding the content or intent of this RFP or on procedural matters should be addressed to:

Ricardo A. Rivera, Legislative, Public Affairs, and Media
SCAQMD
21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-3069

SECTION III: SCHEDULE OF EVENTS

Date	Event
September 7, 2018	RFP Released
October 9, 2018	Proposals Due to SCAQMD – **No Later Than 4:00 p.m.**
October 9-19, 2018	Proposal Evaluations
November 9, 2018	Interviews, if required
December 7, 2018	Governing Board Approval
December 14, 2018	Anticipated Contract Execution

SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS

It is the policy of SCAQMD to ensure that all businesses including minority business enterprises, women business enterprises, disabled veteran business enterprises and small businesses have a fair and equitable opportunity to compete for and participate in SCAQMD contracts. Attachment A to this RFP contains definitions and further information.

SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES

A. Statement of Work

Under the direction of the SCAQMD Executive Officer or Deputy Executive Officer of Legislative & Public Affairs, and, as appropriate, in coordination with SCAQMD's staff, the Consultant(s) will gather information, provide advice and assistance, and/or advocate positions on legislative/regulatory matters in Washington, D.C., on behalf of SCAQMD as it directly pertains to air quality-related issues, energy and climate issues, transportation issues, the federal Clean Air Act, and related issues.

The selected Consultant(s) will perform services on legislative/regulatory matters, including but not necessarily limited to the following:

1. Preparation of a strategic plan for the upcoming legislative year by no later than January 31, 2019, to ensure maximizing SCAQMD Board and staff participation and involvement, with an emphasis on increasing federal air quality program funding for the South Coast Air Basin; protecting the legal authorities of SCAQMD; promoting SCAQMD federal policy priorities, and reducing emissions from federally-controlled mobile sources;

2. Securing the support of SCAQMD's mission and positions by the decision-makers in the legislative and administrative bodies of the United States government;

3. Advising SCAQMD on federal issues as requested or as deemed necessary;

4. Advocating positions as directed by SCAQMD, on all identified and/or drafted legislation and administrative and other policy proposals; providing testimony at committee and other special hearings; and providing written communications to legislators, key administrative officials, and other staff regarding such legislation;

5. Assisting in the development of SCAQMD positions on identified air quality-related federal legislative proposals;

6. Producing materials destined for strategic distribution or inclusion in SCAQMD legislative committee/Board proceedings;

7. Reviewing and providing editorial and technical revisions and quality control for legislative materials destined for distribution or inclusion in SCAQMD legislative committee/Board proceedings;

8. Aiding SCAQMD in making appropriate contact(s) as the Agency participates directly in federal legislative negotiations, including securing additional federal funds for SCAQMD's clean air programs and activities;

9. Advising/assisting SCAQMD in presentation of requests to U.S. EPA or other federal agencies on policy matters impacting SCAQMD operations or its ability to meet the federal clean air standards;

10. Coordination of meetings for SCAQMD Board members and their executive or legislative staff with federal legislators and/or officials, as well as gathering proper briefing materials for each meeting;

11. Attending and participating in meetings exclusively on behalf of SCAQMD with legislative representatives and administration members and appointees;

12. Assisting with the development of a national stakeholder network and/or coalition to help facilitate national support for SCAQMD policy and funding priorities; and

13. Assisting with coordination, as needed, with any SCAQMD conferences, forums, symposia, meetings and/or briefings that are held in Washington, D.C. or otherwise related to federal issues.

B. Schedule of Deliverables

1. A written strategic and tactical implementation plan for 2019;

2. Written and/or oral communications to SCAQMD, in a timely manner, on federal legislation or policy matters having a potential to affect SCAQMD objectives;

3. Written analyses on federal legislation having a potential to affect air quality objectives;

4. Oral and/or written reports on federal legislative/policy meetings attended or monitored on behalf of SCAQMD;

5. Oral and/or written briefings to the SCAQMD Legislative Committee and/or Governing Board on federal legislation or policy, as determined by SCAQMD. These briefings may take place in person, by teleconference, or in writing;

6. Oral and/or written recommendations regarding SCAQMD positions on, and strategies for, federal air quality-related legislation or policies within 14 days of a request by SCAQMD;

7. Oral and/or written recommendations regarding ways to increase federal appropriations or other funding opportunities for clean air efforts in the Southern California region;

8. Written communications to legislators and key administrative officials conveying SCAQMD positions on various bills and administrative actions;

9. Preparing and presenting testimony before Congressional committees and/or federal agency hearings;

10. Attending and participating in meetings exclusively on behalf of SCAQMD with legislative representatives and administration members and appointees;

11. Negotiating bill language, policies or other federal agency provisions related to environmental, transportation or air quality issues;

12. A monthly written briefing covering pertinent administrative/legislative activities;

13. Written quarterly reports, a year-end report, and a year-end presentation delineating and summarizing relevant administrative and legislative actions;

14. An original signed confidentiality agreement; and

15. Maintaining records from which the correctness of all written records and filings can be verified. These records are to be open to inspection by SCAQMD or its representatives during normal business hours.

SECTION VI: REQUIRED QUALIFICATIONS

A. Persons or firms proposing to bid on this proposal must be qualified and experienced in representing and advising governmental agencies and must submit qualifications demonstrating extensive experience and expertise in the following areas:

1. Political and legislative analysis of the federal Clean Air Act;
2. Preparing policy positions on environmental and air quality issues;
3. Legislative monitoring and bill tracking;
4. Congressional appropriations process;
5. Preparing and presenting testimony before Congressional committees and/or federal agency hearings;
6. Negotiating bill language, policies or other federal agency provisions related to environmental, transportation, energy or air quality issues;
7. Ability to work proactively and productively with all political affiliations and points of view; and
8. Demonstrated ability in successfully seeking and securing funding for represented clients.

B. Proposer must submit the following:

1. Resumes or similar statement of qualifications of person or persons who may be designated as lead Consultant for SCAQMD projects;
2. List of representative clients; and
3. Summary of Proposer's general qualifications to meet required qualifications and fulfill statement of work, including additional Firm personnel and resources beyond those of the designated lead Consultant.

SECTION VII: PROPOSAL SUBMITTAL REQUIREMENTS

Submitted proposals must follow the format outlined below and all requested information must be supplied. Failure to submit proposals in the required format will result in elimination from proposal evaluation. SCAQMD may modify the RFP or issue supplementary information or guidelines during the proposal preparation period prior to the due date. Please check our website for updates (http://www.aqmd.gov/grants-bids). The cost for developing the proposal is the responsibility of the Contractor, and shall not be chargeable to SCAQMD.

Each proposal must be submitted in three separate volumes:

- Volume I - Technical Proposal
- Volume II - Cost Proposal
- Volume III - Certifications and Representations included in Attachment B to this RFP, must be completed and executed by an authorized official of the Contractor.

A separate cover letter including the name, address, and telephone number of the contractor, and signed by the person or persons authorized to represent the Firm should accompany the proposal submission. Firm contact information as follows should also be included in the cover letter:

1. Address and telephone number of office in, or nearest to, Diamond Bar, California.

2. Name and title of Firm's representative designated as contact.

A separate Table of Contents should be provided for Volumes I and II.

VOLUME I - TECHNICAL PROPOSAL

DO NOT INCLUDE ANY COST INFORMATION IN THE TECHNICAL VOLUME

Summary (Section A) - State overall approach to meeting the objectives and satisfying the scope of work to be performed, the sequence of activities, and a description of methodology or techniques to be used.

Program Schedule (Section B) - Provide projected milestones or benchmarks for completing the project (to include reports) within the total time allowed.

Project Organization (Section C) - Describe the proposed management structure, program monitoring procedures, and organization of the proposed team. Provide a statement detailing your approach to the project, specifically address the Firm's ability and willingness to commit and maintain staffing to successfully complete the project on the proposed schedule.

Qualifications (Section D) - Describe the technical capabilities of the Firm. Provide references of other similar studies or projects performed during the last five years demonstrating ability to successfully complete the work. Include contact name, title, and telephone number for any references listed. Provide a statement of your Firm's background and related experience in performing similar services for other governmental organizations.

Assigned Personnel (Section E) - Provide the following information about the staff to be assigned to this project:

1. List all key personnel assigned to the project by level, name and location. Provide a resume or similar statement describing the background, qualifications and experience of the lead person and all persons assigned to the project. Substitution of project manager or lead personnel will not be permitted without prior written approval of SCAQMD.

2. Provide a spreadsheet of the labor hours proposed for each labor category at the task level.

3. Provide a statement indicating whether or not 90% of the work will be performed within the geographical boundaries of SCAQMD.

4. Provide a statement of education and training programs provided to, or required of, the staff identified for participation in the project, particularly with reference to management consulting, governmental practices and procedures, and technical matters.

5. Provide a summary of your Firm's general qualifications to meet required qualifications and fulfill statement of work, including additional Firm personnel and resources beyond those who may be assigned to the project.

Subcontractors (Section F) - This project may require expertise in multiple technical areas. List any subcontractors that will be used, identifying functions to be performed by them, their related qualifications and experience and the total number of hours or percentage of time they will spend on the project.

Conflict of Interest (Section G) - Address possible conflicts of interest with other clients affected by actions performed by the Firm on behalf of SCAQMD. SCAQMD recognizes that prospective Contractors may be performing similar projects for other clients. Include a complete list of such clients for the past three (3) years with the type of work performed and the total number of years performing such tasks for each client. Although the Proposer will not be automatically disqualified by reason of work performed for such clients, SCAQMD reserves the right to consider the nature and extent of such work in evaluating the proposal.

Additional Data (Section H) - Provide other essential data that may assist in the evaluation of this proposal.

VOLUME II - COST PROPOSAL

Name and Address - The Cost Proposal must list the name and complete address of the Proposer in the upper left-hand corner.

Cost Proposal – SCAQMD anticipates awarding a fixed price contract. Cost information must be provided as listed below:

1. Detail must be provided by the following categories:

   A. Labor – The Cost Proposal must list the fully-burdened hourly rates and the total number of hours estimated for each level of professional and administrative staff to be used to perform the tasks required by this RFP. Costs should be estimated for each of the components of the work plan.

   B. Subcontractor Costs - List subcontractor costs and identify subcontractors by name. Itemize subcontractor charges per hour or per day.

   C. Travel Costs - Indicate amount of travel cost and basis of estimate to include trip destination, purpose of trip, length of trip, airline fare or mileage expense, per diem costs, lodging and car rental.

   D. Other Direct Costs -This category may include such items as postage and mailing expense, printing and reproduction costs, etc. Provide a basis of estimate for these costs.

2. It is the policy of the SCAQMD to receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services. SCAQMD will give preference, where appropriate, to vendors who certify that they will provide "most favored customer" status to the SCAQMD. To

receive preference points, Proposer shall certify that SCAQMD is receiving "most favored customer" pricing in the Business Status Certifications page of Volume III, Attachment B – Certifications and Representations.

VOLUME III - CERTIFICATIONS AND REPRESENTATIONS (see Attachment B to this RFP)

SECTION VIII: PROPOSAL SUBMISSION

All proposals must be submitted according to specifications set forth in the section above, and this section. Failure to adhere to these specifications may be cause for rejection of the proposal.

Signature - All proposals must be signed by an authorized representative of the Proposer.

Due Date - **All proposals are due no later than 4:00 p.m. October 9, 2018, and should be directed to**:

Procurement Unit
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-3520

Submittal - Submit eight (8) complete copies of the proposal in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Proposer and the words "Request for Proposals P2019-03."

Late bids/proposals will not be accepted under any circumstances.

Grounds for Rejection - A proposal may be immediately rejected if:

- It is not prepared in the format described, or
- It is signed by an individual not authorized to represent the Firm.

Modification or Withdrawal - Once submitted, proposals cannot be altered without the prior written consent of SCAQMD. All proposals shall constitute firm offers and may not be withdrawn for a period of ninety (90) days following the last day to accept proposals.

SECTION IX: PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA

A. Proposals will be evaluated by a panel of three to five SCAQMD staff members familiar with the subject matter of the project. The panel shall be appointed by the Executive Officer or his designee. In addition, the evaluation panel may include such outside public sector or academic community expertise as deemed desirable by the Executive Officer. The panel will make a recommendation to the Executive Officer and/or the Governing Board of SCAQMD for final selection of a contractor and negotiation of a contract.

B. Each member of the evaluation panel shall be accorded equal weight in his or her rating of proposals. The evaluation panel members shall evaluate the proposals according to the specified criteria and numerical weightings set forth below.

1. Proposal Evaluation Criteria

(a) R&D Projects Requiring Technical or Scientific

Expertise, or Special Projects Requiring Unique Knowledge or Abilities

Understanding the Problem	20
Technical/Management Approach	20
Contractor Qualifications	20
Previous Experience on Similar Projects	10
Cost	30
TOTAL	100

(b) Additional Points

Small Business or Small Business Joint Venture	10
DVBE or DVBE Joint Venture	10
Use of DVBE or Small Business Subcontractors	7
Low-Emission Vehicle Business	5
Off-Peak Hours Delivery Business	2
Most Favored Customer	2

The cumulative points awarded for small business, DVBE, use of small business or DVBE subcontractors, low-emission vehicle business, local business, and off-peak hours delivery business shall not exceed 15 points. Most Favored Customer status incentive points shall be added, as applicable for a total of 17 points.

Self-Certification for Additional Points

The award of these additional points shall be contingent upon Proposer completing the Self-Certification section of Attachment B – Certifications and Representations and/or inclusion of a statement in the proposal self-certifying that Proposer qualifies for additional points as detailed above.

2. To receive additional points in the evaluation process for the categories of Small Business or Small Business Joint Venture, DVBE or DVBE Joint Venture or Local Business (for non-federally funded projects), the proposer must submit a self-certification or certification from the State of California Office of Small Business

Certification and Resources at the time of proposal submission certifying that the proposer meets the requirements set forth in Section IV. To receive points for the use of DVBE and/or Small Business subcontractors, at least 25 percent of the total contract value must be subcontracted to DVBEs and/or Small Businesses. To receive points as a Low-Emission Vehicle Business, the proposer must demonstrate to the Executive Officer, or designee, that supplies and materials delivered to SCAQMD are delivered in vehicles that operate on either clean-fuels or if powered by diesel fuel, that the vehicles have particulate traps installed. To receive points as a Local Business, the proposer must affirm that it has an ongoing business within the South Coast AQMD at the time of bid/proposal submittal and that 90% of the work related to the contract will be performed within the South Coast AQMD. **Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.** Federally funded projects are not eligible for local business incentive points. To receive points as an Off-Peak Hours Delivery Business, the proposer must submit, at proposal submission, certification of its commitment to delivering supplies and materials to SCAQMD between the hours of 10:00 a.m. and 3:00 p.m. To receive points for Most Favored Customer status, the proposer must submit, at proposal submission, certification of its commitment to provide most favored customer status to the SCAQMD. The cumulative points awarded for small business, DVBE, use of Small Business or DVBE Subcontractors, Local Business, Low-Emission Vehicle Business and Off-Peak Hour Delivery Business shall not exceed 15 points.

3. For procurement of Research and Development (R & D) projects or projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, technical factors including past experience shall be weighted at 70 points and cost shall be weighted at 30 points. A proposal must receive at least 56 out of 70 points on R & D projects and projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, in order to be deemed qualified for award.

4. The lowest cost proposal will be awarded the maximum cost points available and all other cost proposals will receive points on a prorated basis. For example if the lowest cost proposal is $1,000 and the maximum points available are 30 points, this proposal would receive the full 30 points. If the next lowest cost proposal is $1,100 it would receive 27 points reflecting the fact that it is 10% higher than the lowest cost (90% of 30 points = 27 points).

C. During the selection process the evaluation panel may wish to interview some proposers for clarification purposes only. No new material will be permitted at this time. Additional information provided during the bid review process is limited to clarification by the Proposer of information presented in his/her proposal, upon request by SCAQMD.

D. The Executive Officer or Governing Board may award the contract to a Proposer other than the Proposer receiving the highest rating in the event the Governing Board determines that another Proposer from among those technically qualified would provide the best value to SCAQMD considering cost and technical factors. The determination shall be based solely on the Evaluation Criteria contained in the Request for Proposal

(RFP), on evidence provided in the proposal and on any other evidence provided during the bid review process.

E. Selection will be made based on the above-described criteria and rating factors. The selection will be made by and is subject to Executive Officer or Governing Board approval. Proposers may be notified of the results by letter.

F. The Governing Board has approved a Bid Protest Procedure which provides a process for a Bidder or prospective Bidder to submit a written protest to SCAQMD Procurement Manager in recognition of two types of protests: Protest Regarding Solicitation and Protest Regarding Award of a Contract. Copies of the Bid Protest Policy can be secured through a request to SCAQMD Procurement Department.

G. The Executive Officer or Governing Board may award contracts to more than one proposer if in (his or their) sole judgment the purposes of the (contract or award) would best be served by selecting multiple proposers.

H. If additional funds become available, the Executive Officer or Governing Board may increase the amount awarded. The Executive Officer or Governing Board may also select additional proposers for a grant or contract if additional funds become available.

I. Disposition of Proposals – Pursuant to SCAQMD's Procurement Policy and Procedure, SCAQMD reserves the right to reject any or all proposals. All proposals become the property of SCAQMD, and are subject to the California Public Records Act. One copy of the proposal shall be retained for SCAQMD files. Additional copies and materials will be returned only if requested and at the proposer's expense.

J. If proposal submittal is for a Public Works project as defined by State of California Labor Code Section 1720, Proposer is required to include Contractor Registration No. in Attachment B. Proposal submittal will be deemed as non-responsive and Bidder may be disqualified if Contractor Registration No. is not included in Attachment B. Proposer is alerted to changes to California Prevailing Wage compliance requirements as defined in Senate Bill 854 (Stat. 2014, Chapter 28), and California Labor Code Sections 1770, 1771 and 1725.

SECTION X: FUNDING

The total funding for the work contemplated by this RFP will be a maximum $440.000 for the base, with an option to renew the contract for two additional one-year terms. The funding for the base year is available in the Legislative & Public Affairs FY 2018-19 budget. Funding for the two optional one-year extensions is contingent upon performance and Board approval of the budget for the respective fiscal years.

SECTION XI: SAMPLE CONTRACT

A sample contract to carry out the work described in this RFP is available on SCAQMD's website at http://www.aqmd.gov/grants-bids or upon request from the RFP Contact Person (Section II).

ATTACHMENT A

PARTICIPATION IN THE PROCUREMENT PROCESS

A. It is the policy of South Coast Air Quality Management District (SCAQMD) to ensure that all businesses including minority business enterprises, women business enterprises, disabled veteran business enterprises and small businesses have a fair and equitable opportunity to compete for and participate in SCAQMD contracts.

B. Definitions:

The definition of minority, women or disadvantaged business enterprises set forth below is included for purposes of determining compliance with the affirmative steps requirement described in Paragraph G below on procurements funded in whole or in part with federal grant funds which involve the use of subcontractors. The definition provided for disabled veteran business enterprise, local business, small business enterprise, low-emission vehicle business and off-peak hours delivery business are provided for purposes of determining eligibility for point or cost considerations in the evaluation process.

1. "Women business enterprise" (WBE) as used in this policy means a business enterprise that meets all of the following criteria:

   a. a business that is at least 51 percent owned by one or more women, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or women.

   b. a business whose management and daily business operations are controlled by one or more women.

   c. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.

2. "Disabled veteran" as used in this policy is a United States military, naval, or air service veteran with at least 10 percent service-connected disability who is a resident of California.

3. "Disabled veteran business enterprise" (DVBE) as used in this policy means a business enterprise that meets all of the following criteria:

   a. is a sole proprietorship or partnership of which at least 51 percent is owned by one or more disabled veterans or, in the case of a publicly owned business, at least 51 percent of its stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.

b. the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.

c. is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.

4. "Local business" as used in this policy means a company that has an ongoing business within geographical boundaries of SCAQMD at the time of bid or proposal submittal and performs 90% of the work related to the contract within the geographical boundaries of SCAQMD and satisfies the requirements of subparagraph H below. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.

5. “Small business” as used in this policy means a business that meets the following criteria:

   a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:

      - A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars ($10,000,000) or less over the previous three years, or

      - A manufacturer with 100 or fewer employees.

   b. Manufacturer means a business that is both of the following:

      1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.

      2) Classified between Codes 311000 and 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.

6. "Joint ventures" as defined in this policy pertaining to certification means that one party to the joint venture is a DVBE or small business and owns at least 51 percent of the joint venture.

7. "Low-Emission Vehicle Business" as used in this policy means a company or contractor that uses low-emission vehicles in conducting deliveries to SCAQMD. Low-emission vehicles include vehicles powered by electric, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol, hydrogen and diesel retrofitted with particulate matter (PM) traps.

8. “Off-Peak Hours Delivery Business” as used in this policy means a company or contractor that commits to conducting deliveries to SCAQMD during off-peak traffic hours defined as between 10:00 a.m. and 3:00 p.m.

9. “Benefits Incentive Business” as used in this policy means a company or contractor that provides janitorial, security guard or landscaping services to SCAQMD and commits to providing employee health benefits (as defined below in Section VIII.D.2.d) for full time workers with affordable deductible and co-payment terms.

10. “Minority Business Enterprise” as used in this policy means a business that is at least 51 percent owned by one or more minority person(s), or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or minority persons.

    a. a business whose management and daily business operations are controlled by one or more minority persons.

    b. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.

    c. "Minority person" for purposes of this policy, means a Black American, Hispanic American, Native-American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian (including a person whose origins are from India, Pakistan, and Bangladesh), Asian-Pacific-American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan).

11. “Most Favored Customer” as used in this policy means that the SCAQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.

12. ”Disadvantaged Business Enterprise” as used in this policy means a business that is an entity owned and/or controlled by a socially and economically disadvantaged individual(s) as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d)(8% statute), respectively;
    a Small Business Enterprise (SBE);
    a Small Business in a Rural Area (SBRA);
    a Labor Surplus Area Firm (LSAF); or
    a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

C. Under Request for Quotations (RFQ), DVBEs, DVBE business joint ventures, small businesses, and small business joint ventures shall be granted a preference in an amount equal to 5% of the lowest cost responsive bid. Low-Emission Vehicle Businesses shall be granted a preference in an amount equal to 5 percent of the lowest cost responsive bid.

Off-Peak Hours Delivery Businesses shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid. Local businesses (if the procurement is not funded in whole or in part by federal grant funds) shall be granted a preference in an amount equal to 2% of the lowest cost responsive bid. Businesses offering Most Favored Customer status shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid.

D. Under Request for Proposals, DVBEs, DVBE joint ventures, small businesses, and small business joint ventures shall be awarded ten (10) points in the evaluation process. A non-DVBE or large business shall receive seven (7) points for subcontracting at least twenty-five (25%) of the total contract value to a DVBE and/or small business. Low-Emission Vehicle Businesses shall be awarded five (5) points in the evaluation process. On procurements which are not funded in whole or in part by federal grant funds local businesses shall receive five (5) points. Off-Peak Hours Delivery Businesses shall be awarded two (2) points in the evaluation process. Businesses offering Most Favored Customer status shall be awarded two (2) points in the evaluation process.

E. SCAQMD will ensure that discrimination in the award and performance of contracts does not occur on the basis of race, color, sex, national origin, marital status, sexual preference, creed, ancestry, medical condition, or retaliation for having filed a discrimination complaint in the performance of SCAQMD contractual obligations.

F. SCAQMD requires Contractor to be in compliance with all state and federal laws and regulations with respect to its employees throughout the term of any awarded contract, including state minimum wage laws and OSHA requirements.

G. When contracts are funded in whole or in part by federal funds, and if subcontracts are to be let, the Contractor must comply with the following, evidencing a good faith effort to solicit disadvantaged businesses. Contractor shall submit a certification signed by an authorized official affirming its status as a MBE or WBE, as applicable, at the time of contract execution. SCAQMD reserves the right to request documentation demonstrating compliance with the following good faith efforts prior to contract execution.

    1. Ensure Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

    2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

    3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and Local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.

H. To the extent that any conflict exists between this policy and any requirements imposed by federal and state law relating to participation in a contract by a certified MBE/WBE/DVBE as a condition of receipt of federal or state funds, the federal or state requirements shall prevail.

I. When contracts are not funded in whole or in part by federal grant funds, a local business preference will be awarded. For such contracts that involve the purchase of commercial off-the-shelf products, local business preference will be given to suppliers or distributors of commercial off-the-shelf products who maintain an ongoing business within the geographical boundaries of SCAQMD. However, if the subject matter of the RFP or RFQ calls for the fabrication or manufacture of custom products, only companies performing 90% of the manufacturing or fabrication effort within the geographical boundaries of SCAQMD shall be entitled to the local business preference. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.

J. In compliance with federal fair share requirements set forth in 40 CFR Part 33, SCAQMD shall establish a fair share goal annually for expenditures with federal funds covered by its procurement policy.

ATTACHMENT B

South Coast
Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Business Information Request

Dear SCAQMD Contractor/Supplier:

South Coast Air Quality Management District (SCAQMD) is committed to ensuring that our contractor/supplier records are current and accurate. If your firm is selected for award of a purchase order or contract, it is imperative that the information requested herein be supplied in a timely manner to facilitate payment of invoices. In order to process your payments, we need the enclosed information regarding your account. **Please review and complete the information identified on the following pages, remember to sign all documents for our files, and return them as soon as possible to the address below:**

Attention: Accounts Payable, Accounting Department
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

If you do not return this information, we will not be able to establish you as a vendor. This will delay any payments and would still necessitate your submittal of the enclosed information to our Accounting department before payment could be initiated. Completion of this document and enclosed forms would ensure that your payments are processed timely and accurately.

If you have any questions or need assistance in completing this information, please contact Accounting at (909) 396-3777. We appreciate your cooperation in completing this necessary information.

Sincerely,

Sujata Jain
Asst. Deputy Executive Officer
Finance

DH:tm

Enclosures: Business Information Request
Disadvantaged Business Certification
W-9
Form 590 Withholding Exemption Certificate
Federal Contract Debarment Certification
Campaign Contributions Disclosure
Direct Deposit Authorization

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

BUSINESS INFORMATION REQUEST

Business Name	
Division of	
Subsidiary of	
Website Address	
Type of Business *Check One:*	☐ Individual ☐ DBA, Name _____, County Filed in _____ ☐ Corporation, ID No. _____ ☐ LLC/LLP, ID No. _____ ☐ Other _____

REMITTING ADDRESS INFORMATION

Address			
City/Town			
State/Province		Zip	
Phone	( ) - Ext	Fax	( ) -
Contact		Title	
E-mail Address			
Payment Name if Different			

All invoices must reference the corresponding Purchase Order Number(s)/Contract Number(s) if applicable and mailed to:

Attention: Accounts Payable, Accounting Department
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

BUSINESS STATUS CERTIFICATIONS

Federal guidance for utilization of disadvantaged business enterprises allows a vendor to be deemed a small business enterprise (SBE), minority business enterprise (MBE) or women business enterprise (WBE) if it meets the criteria below.

- is certified by the Small Business Administration or
- is certified by a state or federal agency or
- is an independent MBE(s) or WBE(s) business concern which is at least 51 percent owned and controlled by minority group member(s) who are citizens of the United States.

Statements of certification:

As a prime contractor to SCAQMD, (name of business) will engage in good faith efforts to achieve the fair share in accordance with 40 CFR Section 33.301, and will follow the six affirmative steps listed below **for contracts or purchase orders funded in whole or in part by federal grants and contracts.**

1. Place qualified SBEs, MBEs, and WBEs on solicitation lists.
2. Assure that SBEs, MBEs, and WBEs are solicited whenever possible.
3. When economically feasible, divide total requirements into small tasks or quantities to permit greater participation by SBEs, MBEs, and WBEs.
4. Establish delivery schedules, if possible, to encourage participation by SBEs, MBEs, and WBEs.
5. Use services of Small Business Administration, Minority Business Development Agency of the Department of Commerce, and/or any agency authorized as a clearinghouse for SBEs, MBEs, and WBEs.
6. If subcontracts are to be let, take the above affirmative steps.

Self-Certification Verification: Also for use in awarding additional points, as applicable, in accordance with SCAQMD Procurement Policy and Procedure:

Check all that apply:

☐ Small Business Enterprise/Small Business Joint Venture
☐ Local business
☐ Minority-owned Business Enterprise
☐ Women-owned Business Enterprise
☐ Disabled Veteran-owned Business Enterprise/DVBE Joint Venture
☐ Most Favored Customer Pricing Certification

Percent of ownership: _____ %

Name of Qualifying Owner(s): _____ _____

State of California Public Works Contractor Registration No. _____. MUST BE INCLUDED IF BID PROPOSAL IS FOR PUBLIC WORKS PROJECT.

I, the undersigned, hereby declare that to the best of my knowledge the above information is accurate. Upon penalty of perjury, I certify information submitted is factual.

_____ _____
NAME ***TITLE***

_____ _____
TELEPHONE NUMBER ***DATE***

Definitions

Disabled Veteran-Owned Business Enterprise means a business that meets all of the following criteria:

- is a sole proprietorship or partnership of which is at least 51 percent owned by one or more disabled veterans, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.
- the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.
- is a sole proprietorship, corporation, partnership, or joint venture with its primary headquarters office located in the United States and which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.

Joint Venture means that one party to the joint venture is a DVBE and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that DVBE will receive at least 51 percent of the project dollars.

Local Business means a business that meets all of the following criteria:

- has an ongoing business within the boundary of SCAQMD at the time of bid application.
- performs 90 percent of the work within SCAQMD's jurisdiction.

Minority-Owned Business Enterprise means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more minority persons or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more minority persons.
- is a business whose management and daily business operations are controlled or owned by one or more minority person.
- is a business which is a sole proprietorship, corporation, partnership, joint venture, an association, or a cooperative with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

"Minority" person means a Black American, Hispanic American, Native American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian American (including a person whose origins are from India, Pakistan, or Bangladesh), Asian-Pacific American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, or Taiwan).

Small Business Enterprise means a business that meets the following criteria:

a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:

   - **A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars ($10,000,000) or less over the previous three years, or**
   - A manufacturer with 100 or fewer employees.

b. Manufacturer means a business that is both of the following:

   1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.

   2) Classified between Codes 311000 to 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.

Small Business Joint Venture means that one party to the joint venture is a Small Business and owns at least 51 percent of the joint venture. In the case of a joint venture formed for a single project this means that the Small Business will receive at least 51 percent of the project dollars.

Women-Owned Business Enterprise means a business that meets all of the following criteria:

- is at least 51 percent owned by one or more women or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more women.
- is a business whose management and daily business operations are controlled or owned by one or more women.
- is a business which is a sole proprietorship, corporation, partnership, or a joint venture, with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign business.

Most Favored Customer as used in this policy means that the SCAQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.

Form **W-9**
(Rev. November 2017)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

▶ **Go to *www.irs.gov/FormW9* for instructions and the latest information.**

Give Form to the requester. Do not send to the IRS.

Print or type. See **Specific Instructions** on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only **one** of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is **not** disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

Requester's name and address (optional)

6 City, state, and ZIP code

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN,* later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

			–			–				

or

Employer identification number

		–							

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here **Signature of U.S. person ▶** **Date ▶**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to *www.irs.gov/FormW9.*

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, *later.*

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and

4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting,* later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,

2. You do not certify your TIN when required (see the instructions for Part II for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code,* later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships,* earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code,* later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)

2—The United States or any of its agencies or instrumentalities

3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

4—A foreign government or any of its political subdivisions, agencies, or instrumentalities

5—A corporation

6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession

7—A futures commission merchant registered with the Commodity Futures Trading Commission

8—A real estate investment trust

9—An entity registered at all times during the tax year under the Investment Company Act of 1940

10—A common trust fund operated by a bank under section 584(a)

11—A financial institution

12—A middleman known in the investment community as a nominee or custodian

13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over $600 required to be reported and direct sales over $5,000[1]	Generally, exempt payees 1 through 5[2]
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester,* later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at *www.SSA.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/Businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. Go to *www.irs.gov/Forms* to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to *www.irs.gov/OrderForms* to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code,* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account[1]
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor[2]
5. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee[1] The actual owner[1]
6. Sole proprietorship or disregarded entity owned by an individual	The owner[3]
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	**Give name and EIN of:**
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity[4]
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships,* earlier.

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov*. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at *spam@uce.gov* or report them at *www.ftc.gov/complaint*. You can contact the FTC at *www.ftc.gov/idtheft* or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see *www.IdentityTheft.gov* and Pub. 5027.

Visit *www.irs.gov/IdentityTheft* to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

TAXABLE YEAR

CALIFORNIA FORM

2018 Withholding Exemption Certificate 590

The payee completes this form and submits it to the withholding agent. The withholding agent keeps this form with their records.

Withholding Agent Information

Name

Payee Information

Name ☐ SSN or ITIN ☐ FEIN ☐ CA Corp no. ☐ CA SOS file no.

Address (apt./ste., room, PO box, or PMB no.)

City (If you have a foreign address, see instructions.) State ZIP code

Exemption Reason

Check only one box.

By checking the appropriate box below, the payee certifies the reason for the exemption from the California income tax withholding requirements on payment(s) made to the entity or individual.

☐ **Individuals — Certification of Residency:**
I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.

☐ **Corporations:**
The corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See instructions for General Information D, Definitions.

☐ **Partnerships or Limited Liability Companies (LLCs):**
The partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.

☐ **Tax-Exempt Entities:**
The entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 _____ (insert letter) or Internal Revenue Code Section 501(c) _____ (insert number). If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.

☐ **Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit-Sharing Plans:**
The entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.

☐ **California Trusts:**
At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return. If the trustee or noncontingent beneficiary becomes a nonresident at any time, I will promptly notify the withholding agent.

☐ **Estates — Certification of Residency of Deceased Person:**
I am the executor of the above-named person's estate or trust. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return.

☐ **Nonmilitary Spouse of a Military Servicemember:**
I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See instructions for General Information E, MSRRA.

CERTIFICATE OF PAYEE: Payee must complete and sign below.

To learn about your privacy rights, how we may use your information, and the consequences for not providing the requested information, go to **ftb.ca.gov/forms** and search for **1131**. To request this notice by mail, call 800.852.5711.

Under penalties of perjury, I declare that I have examined the information on this form, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. I further declare under penalties of perjury that if the facts upon which this form are based change, I will promptly notify the withholding agent.

Type or print payee's name and title _____ Telephone (_____)_____

Payee's signature ▶ _____ Date _____

7061183 Form 590 2017

2017 Instructions for Form 590

Withholding Exemption Certificate

References in these instructions are to the California Revenue and Taxation Code (R&TC).

General Information

Registered Domestic Partners (RDP) – For purposes of California income tax, references to a spouse, husband, or wife also refer to a Registered Domestic Partner (RDP) unless otherwise specified. For more information on RDPs, get FTB Pub. 737, Tax Information for Registered Domestic Partners.

A Purpose

Use Form 590, Withholding Exemption Certificate, to certify an exemption from nonresident withholding.

Form 590 does not apply to payments of backup withholding. For more information, go to **ftb.ca.gov** and search for **backup withholding**.

Form 590 does not apply to payments for wages to employees. Wage withholding is administered by the California Employment Development Department (EDD). For more information, go to **edd.ca.gov** or call **888**.745.3886.

Do not use Form 590 to certify an exemption from withholding if you are a **Seller of California real estate**. Sellers of California real estate use Form 593-C, Real Estate Withholding Certificate, to claim an exemption from the real estate withholding requirement.

The following are excluded from withholding and completing this form:

- The United States and any of its agencies or instrumentalities.
- A state, a possession of the United States, the District of Columbia, or any of its political subdivisions or instrumentalities.
- A foreign government or any of its political subdivisions, agencies, or instrumentalities.

B Income Subject to Withholding

California Revenue and Taxation Code (R&TC) Section 18662 requires withholding of income or franchise tax on payments of California source income made to nonresidents of California.

Withholding is required on the following, but is not limited to:

- Payments to nonresidents for services rendered in California.
- Distributions of California source income made to domestic nonresident partners, members, and S corporation shareholders and allocations of California source income made to foreign partners and members.
- Payments to nonresidents for rents if the payments are made in the course of the withholding agent's business.
- Payments to nonresidents for royalties from activities sourced to California.
- Distributions of California source income to nonresident beneficiaries from an estate or trust.
- Endorsement payments received for services performed in California.
- Prizes and winnings received by nonresidents for contests in California.

However, withholding is optional if the total payments of California source income are $1,500 or less during the calendar year.

For more information on withholding get FTB Pub. 1017, Resident and Nonresident Withholding Guidelines. To get a withholding publication, see Additional Information.

C Who Certifies this Form

Form 590 is certified by the payee. California residents or entities exempt from the withholding requirement should complete Form 590 and submit it to the withholding agent before payment is made. The withholding agent is then relieved of the withholding requirements if the agent relies in good faith on a completed and signed Form 590 unless notified by the Franchise Tax Board (FTB) that the form should not be relied upon.

An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number (TIN). The withholding agent must retain a copy of the certificate or substitute for at least five years after the last payment to which the certificate applies, and provide it upon request to the FTB.

If an entertainer (or the entertainer's business entity) is paid for a performance, the entertainer's information must be provided. **Do not** submit the entertainer's agent or promoter information.

The grantor of a grantor trust shall be treated as the payee for withholding purposes. Therefore, if the payee is a grantor trust and one or more of the grantors is a nonresident, withholding is required. If all of the grantors on the trust are residents, no withholding is required. Resident grantors can check the box on Form 590 labeled "Individuals — Certification of Residency."

D Definitions

For California nonwage withholding purposes, **nonresident** includes all of the following:

- Individuals who are not residents of California.
- Corporations not qualified through the California Secretary of State (CA SOS) to do business in California or having no permanent place of business in California.
- Partnerships or limited liability companies (LLCs) with no permanent place of business in California.
- Any trust without a resident grantor, beneficiary, or trustee, or estates where the decedent was not a California resident.

Foreign refers to non-U.S.

For more information about determining resident status, get FTB Pub. 1031, Guidelines for Determining Resident Status. Military servicemembers have special rules for residency. For more information, get FTB Pub. 1032, Tax Information for Military Personnel.

Permanent Place of Business:
A corporation has a permanent place of business in California if it is organized and existing under the laws of California or it has qualified through the CA SOS to transact intrastate business. A corporation that has not qualified to transact intrastate business (e.g., a corporation engaged exclusively in interstate commerce) will be considered as having a permanent place of business in California only if it maintains a permanent office in California that is permanently staffed by its employees.

E Military Spouse Residency Relief Act (MSRRA)

Generally, for tax purposes you are considered to maintain your existing residence or domicile. If a military servicemember and nonmilitary spouse have the same state of domicile, the MSRRA provides:

- A spouse shall not be deemed to have lost a residence or domicile in any state solely by reason of being absent to be with the servicemember serving in compliance with military orders.
- A spouse shall not be deemed to have acquired a residence or domicile in any other state solely by reason of being there to be with the servicemember serving in compliance with military orders.

Domicile is defined as the one place:

- Where you maintain a true, fixed, and permanent home.
- To which you intend to return whenever you are absent.

A military servicemember's nonmilitary spouse is considered a nonresident for tax purposes if the servicemember and spouse have the same domicile outside of California and the spouse is in California solely to be with the servicemember who is serving in compliance with Permanent Change of Station orders.

California may require nonmilitary spouses of military servicemembers to provide proof that they meet the criteria for California personal income tax exemption as set forth in the MSRRA.

Income of a military servicemember's nonmilitary spouse for services performed in California is not California source income subject to state tax if the spouse is in California to be with the servicemember serving in compliance with military orders, and the servicemember and spouse have the same domicile in a state other than California.

For additional information or assistance in determining whether the applicant meets the MSRRA requirements, get FTB Pub. 1032.

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

Enter the payee's information, including the TIN and check the appropriate TIN box.

You must provide a valid TIN as requested on this form. The following are acceptable TINs: social security number (SSN); individual taxpayer identification number (ITIN); federal employer identification number (FEIN); California corporation number (CA Corp no.); or CA SOS file number.

Private Mail Box (PMB) – Include the PMB in the address field. Write "PMB" first, then the box number. Example: 111 Main Street PMB 123.

Foreign Address – Follow the country's practice for entering the city, county, province, state, country, and postal code, as applicable, in the appropriate boxes. **Do not** abbreviate the country name.

Exemption Reason – Check the box that reflects the reason why the payee is exempt from the California income tax withholding requirement.

Withholding Agent Instructions

Do not send this form to the FTB. The withholding agent retains this form for a minimum of five years or until the payee's status changes, and must provide this form to the FTB upon request.

The payee must notify the withholding agent if any of the following situations occur:

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.
- The partnership ceases to have a permanent place of business in California.
- The LLC ceases to have a permanent place of business in California.
- The tax-exempt entity loses its tax-exempt status.

If any of these situations occur, then withholding may be required. For more information, get Form 592, Resident and Nonresident Withholding Statement, Form 592-B, Resident and Nonresident Withholding Tax Statement, and Form 592-V, Payment Voucher for Resident and Nonresident Withholding.

Additional Information

Website:	For more information go to **ftb.ca.gov** and search for **nonwage**. **MyFTB** offers secure online tax account information and services. For more information and to register, go to **ftb.ca.gov** and search for **myftb**.
Telephone:	**888**.792.4900 or 916.845.4900, Withholding Services and Compliance phone service
Fax:	916.845.9512
Mail:	WITHHOLDING SERVICES AND COMPLIANCE MS F182 FRANCHISE TAX BOARD PO BOX 942867 SACRAMENTO CA 94267-0651

For questions unrelated to withholding, or to download, view, and print California tax forms and publications, or to access the TTY/TDD numbers, see the information below.

Internet and Telephone Assistance

Website:	**ftb.ca.gov**
Telephone:	800.852.5711 from within the United States 916.845.6500 from outside the United States
TTY/TDD:	800.822.6268 for persons with hearing or speech impairments

Asistencia Por Internet y Teléfono

Sitio web:	**ftb.ca.gov**
Teléfono:	800.852.5711 dentro de los Estados Unidos 916.845.6500 fuera de los Estados Unidos
TTY/TDD:	800.822.6268 para personas con discapacidades auditivas o de habla

Certification Regarding
Debarment, Suspension, and Other Responsibility Matters

The prospective participant certifies to the best of its knowledge and belief that it and the principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statute or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property:

(c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in a fine of up to $10,000 or imprisonment for up to 5 years, or both.

_____

Typed Name & Title of Authorized Representative

_____

Signature of Authorized Representative Date

❑ I am unable to certify to the above statements. My explanation is attached.

CAMPAIGN CONTRIBUTIONS DISCLOSURE

In accordance with California law, bidders and contracting parties are required to disclose, at the time the application is filed, information relating to any campaign contributions made to South Coast Air Quality Management District (SCAQMD) Board Members or members/alternates of the MSRC, including: the name of the party making the contribution (which includes any parent, subsidiary or otherwise related business entity, as defined below), the amount of the contribution, and the date the contribution was made. 2 C.C.R. §18438.8(b).

California law prohibits a party, or an agent, from making campaign contributions to SCAQMD Governing Board Members or members/alternates of the Mobile Source Air Pollution Reduction Review Committee (MSRC) of more than $250 while their contract or permit is pending before SCAQMD; and further prohibits a campaign contribution from being made for three (3) months following the date of the final decision by the Governing Board or the MSRC on a donor's contract or permit. Gov't Code §84308(d). For purposes of reaching the $250 limit, the campaign contributions of the bidder or contractor *plus* contributions by its parents, affiliates, and related companies of the contractor or bidder are added together. 2 C.C.R. §18438.5.

In addition, SCAQMD Board Members or members/alternates of the MSRC must abstain from voting on a contract or permit if they have received a campaign contribution from a party or participant to the proceeding, or agent, totaling more than $250 in the 12-month period prior to the consideration of the item by the Governing Board or the MSRC. Gov't Code §84308(c).

The list of current SCAQMD Governing Board Members can be found at SCAQMD website (www.aqmd.gov). The list of current MSRC members/alternates can be found at the MSRC website (http://www.cleantransportationfunding.org).

SECTION I.

Contractor (Legal Name): _____

DBA, Name _____, County Filed in_____

Corporation, ID No._____

LLC/LLP, ID No. _____

List any parent, subsidiaries, or otherwise affiliated business entities of Contractor: ***(See definition below).***

_____

_____

SECTION II.

Has Contractor and/or any parent, subsidiary, or affiliated company, or agent thereof, made a campaign contribution(s) totaling $250 or more in the aggregate to a current member of the South Coast Air Quality Management Governing Board or member/alternate of the MSRC in the 12 months preceding the date of execution of this disclosure?

☐ Yes ☐ No **If YES, complete Section II below and then sign and date the form. If NO, sign and date below. Include this form with your submittal.**

Campaign Contributions Disclosure, *continued:*

Name of Contributor _____

Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

Name of Contributor _____

Governing Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution

I declare the foregoing disclosures to be true and correct.

By: _____

Title: _____

Date: _____

DEFINITIONS

Parent, Subsidiary, or Otherwise Related Business Entity (2 Cal. Code of Regs., §18703.1(d).)

(1) Parent subsidiary. A parent subsidiary relationship exists when one corporation directly or indirectly owns shares possessing more than 50 percent of the voting power of another corporation.

(2) Otherwise related business entity. Business entities, including corporations, partnerships, joint ventures and any other organizations and enterprises operated for profit, which do not have a parent subsidiary relationship are otherwise related if any one of the following three tests is met:

(A) One business entity has a controlling ownership interest in the other business entity.

(B) There is shared management and control between the entities. In determining whether there is shared management and control, consideration should be given to the following factors:

(i) The same person or substantially the same person owns and manages the two entities;
(ii) There are common or commingled funds or assets;
(iii) The business entities share the use of the same offices or employees, or otherwise share activities, resources or personnel on a regular basis;
(iv) There is otherwise a regular and close working relationship between the entities; or

(C) A controlling owner (50% or greater interest as a shareholder or as a general partner) in one entity also is a controlling owner in the other entity.

South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Direct Deposit Authorization

STEP 1: Please check all the appropriate boxes

- ☐ Individual (Employee, Governing Board Member)
- ☐ Vendor/Contractor
- ☐ Changed Information
- ☐ New Request
- ☐ Cancel Direct Deposit

STEP 2: Payee Information

Last Name	First Name	Middle Initial	Title

Vendor/Contractor Business Name (if applicable)

Address	Apartment or P.O. Box Number

City	State	Zip	Country

Taxpayer ID Number	Telephone Number	Email Address

Authorization

1. I authorize South Coast Air Quality Management District (SCAQMD) to direct deposit funds to my account in the financial institution as indicated below. I understand that the authorization may be rejected or discontinued by SCAQMD at any time. If any of the above information changes, I will promptly complete a new authorization agreement. If the direct deposit is not stopped before closing an account, funds payable to me will be returned to SCAQMD for distribution. This will delay my payment.
2. This authorization remains in effect until SCAQMD receives written notification of changes or cancellation from you.
3. I hereby release and hold harmless SCAQMD for any claims or liability to pay for any losses or costs related to insufficient fund transactions that result from failure within the Automated Clearing House network to correctly and timely deposit monies into my account.

STEP 3:

You must verify that your bank is a member of an Automated Clearing House (ACH). Failure to do so could delay the processing of your payment. You must attach a voided check or have your bank complete the bank information and the account holder must sign below.

To be Completed by your Bank

Staple Voided Check Here

Name of Bank/Institution		
Account Holder Name(s)		
☐ Saving ☐ Checking	Account Number	Routing Number
Bank Representative Printed Name	Bank Representative Signature	Date
ACCOUNT HOLDER SIGNATURE:		Date

For SCAQMD Use Only Input By _____ Date _____

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 9

PROPOSAL: Issue Purchase Order for Ingres Relational Database Management System Software Support

SYNOPSIS: The Ingres Relational Database Management System is used for the implementation of the Central Information Repository database. This database is used by most enterprise-level software applications at the SCAQMD and currently supports a suite of client/server and web-based applications known collectively as the Clean Air Support System (CLASS). The CLASS applications are used to support all of the SCAQMD's core activities. Licensing, maintenance, and support for this software expires on November 29, 2018. This action is to issue a purchase order to Actian Corporation for a total amount not to exceed $225,341. Funds for this expense are included in the FY 2018-19 Budget.

COMMITTEE: Administrative, July 13, 2018; Recommended for Approval

RECOMMENDED ACTION:
Authorize the Procurement Manager to issue a purchase order to Actian Corporation (formerly Ingres Corporation) for Ingres Relational Database Management System software licensing, maintenance and support, for the period of November 30, 2018 through November 29, 2019, for a total amount not to exceed $225,341.

Wayne Nastri
Executive Officer

WN:RM:MH:cj

Background
In December 2017, the SCAQMD entered into a one-year licensing, maintenance, and support and maintenance agreement for Ingres Relational Database Management System (RDBMS) software. The RDBMS software runs on three database servers for production, development, and ad hoc reporting. The production server hosts the Central Information Repository database. This database supports a collection of more than 30 client/server and web-based applications known as the Clean Air Support System (CLASS). The CLASS application suite supports permits administration and processing of equipment-based and facility-based permits; emissions offsetting,

monitoring and inventory management for New Source Review, RECLAIM and annual emission reporting operations; compliance-related complaints, inspection, assignment, notification, investigation and settlement operations; and financial accounts receivable operations. The development server supports software development for the CLASS and other computers accessing the Central Information Repository. The decision support server supports CLASS system ad-hoc query and reporting and web-based inquiry applications. These applications are an integral component of the SCAQMD's day-to-day responsibilities. The RDBMS software licensing, maintenance and support expires on November 29, 2018.

Ingres maintenance includes the following services:

Software Maintenance	Licensed product updates, enhancements, and repairs.
Software Support	Assistance in resolving online operating difficulties, system failures, Ingres application-related problems, potential system bugs, and installation and upgrade issues.

Sole Source Justification
Section VIII.B.2 of the Procurement Policy and Procedure identifies circumstances under which a sole source purchase award may be justified. This request for a sole source award is made under provision VIII.B.2.c.(2) because the project involves the use of proprietary technology, and provision VIII.B.2.c.(3) because the contractor has ownership of key assets required for project performance. Previous quotes indicated it would cost well over $1 million to convert the CLASS applications to another relational database. Actian Corporation (formerly Ingres Corporation) is the sole manufacturer and provider of this software and therefore the only source for its maintenance and support licensing agreements.

Proposal
Staff recommends the issuance of a one-year purchase order for RDBMS software licensing, maintenance and support to provide continued support for SCAQMD's CLASS applications in an amount not to exceed $225,341. Actian has performed well in the past providing timely technical support, updates and patches.

Resource Impacts
Sufficient funds are available in Information Management's FY 2018-19 Budget, Services and Supplies Major Object, Professional and Special Services account.

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 10

PROPOSAL: Amend Classification of Career Development Intern, and Adopt New Classification of Source Testing Manager

SYNOPSIS: The Career Development Intern program provides young adults who have transitioned from the foster care system with on-the-job training and experience, to prepare them for future job opportunities. This action is to amend the classification to expand the eligibility requirements to reach a wider pool of young adults in similar circumstances, and to increase the maximum term of these internships. This action is also to add the new classification of Source Testing Manager; adopt the class specification; and adopt the Resolution amending the *Salary Resolution*. Funding for the Source Testing Manager position was included in the FY 2018-19 Budget.

COMMITTEE: Administrative, July 13, 2018; Recommended for Approval

RECOMMENDED ACTIONS:
1. Amend the Career Development Intern class specification (Attachment A).
2. Adopt the Source Testing Manager class specification (Attachment B).
3. Adopt the Resolution amending Sections 53 and 54 of the *Salary Resolution* to establish the salary for the new Source Testing Manager classification (Attachment C).

Wayne Nastri
Executive Officer

AJO:BB:mm

Background

In May 2015, at the request of the Los Angeles County Board of Supervisors, SCAQMD initiated a career development internship program, providing young adults who have transitioned from the foster care system with opportunities to gain invaluable on-the-job training and experience to increase their potential to successfully compete for full-time employment in the job market. To date, three Career Development Interns have participated in this program.

The Board's adopted FY 2018-19 Budget included funding for a new Source Testing Manager position, reporting to the Science and Technology Advancement Unit. However, a job classification was not adopted at that time.

Proposal

Career Development Intern

The Career Development Intern program provides transition-aged foster youth with job training opportunities. The youth selected for this program receive on-the-job training in one of several existing SCAQMD job classifications for which they may not otherwise meet the minimum qualifications of education or experience, such as Office Assistant, General Maintenance Helper, and Fleet Services Worker I.

Over the last three years, the program has had a positive impact on the participants and the SCAQMD; for example, one of the former interns was hired into a full-time Mail/Subscription Services Clerk position. To continue to build this program, this action seeks to expand the scope and requirements of the classification by extending the pool of eligible young adults to those in programs established by nonprofit organizations, and by allowing for longer term assignments to ensure adequate time for training is provided. The current maximum assignment is one year and the Administrative Committee recommended extending it to three years, as shown in the amendments of the class specification for Career Development Intern (Attachment A).

Source Testing Manager

As part of the current fiscal year budget, a Source Testing Manager position was added to the Science and Technology Advancement staff. This new position will be responsible for managing the daily administration of the Source Testing Unit. It requires technical knowledge of source testing of commercial and industrial plant operations, especially energy-generation, chemical, and petroleum processes. In order to initiate the recruitment process for this critical position, staff recommends the adoption of the new classification of Source Testing Manager (Attachment B), as well as the adoption of the Resolution amending the *Salary Resolution* to establish the salary for the new classification (Attachment C).

Resource Impacts

Funding for a Source Testing Manager position and two Career Development Intern positions are included in the FY 2018-19 Budget.

Attachments

Attachment A - Revised Class Specification for Career Development Intern
Attachment B – Proposed New Class Specification for Source Testing Manager
Attachment C - Resolution Amending Sections 53 and 54 of the *Salary Resolution.*

ATTACHMENT A
CLASSIFICATION SPECIFICATION

TITLE: CAREER DEVELOPMENT INTERN APPROVED:

SALARY

$15.28 Hourly
$1,222.40 Bi-Weekly
$2,648.53 Monthly
$31,782.40 Annually

DEFINITION: Under close supervision in a training capacity, performs a variety of structured, on-the-job training duties depending on the assignment. Depending on assignment, participates in entry-level work in fleet services, general maintenance, mail room, general office administration, print shop, or storekeeping.

CLASSIFICATION STANDARDS: This is a multi-position, training-level class. Incumbents participate in entry-level work in a training capacity in one of the following job classifications: Fleet Services Worker I, General Maintenance Helper, Mail Subscription Services Clerk, Office Assistant, Print Shop Duplicator, or Stock Clerk. Career Development Interns participate in a structured on-the-job training assignment in preparation for successful progression into one of the above jobs. Such jobs are not guaranteed, as they are only filled through competitive processes. Career Development Intern assignments are limited, and are not to exceed ~~one~~three~~two~~ years. ~~During this year, I~~incumbents are expected to gain valuable competitive experience, knowledge, skills and abilities as they engage in the following essential job functions:

ESSENTIAL DUTIES (Depending on assignment, may include, but not be limited to):

Fleet Services Worker: Under close supervision, may remove and replace oil filters, air filters, hoses, fan belts, light bulbs, windshield wipers, or other vehicle accessories, as needed; dispense fuel to fleet and rideshare vehicles and controls the parking of vehicles in SCAQMD parking lots; load and unload vehicles operated; sort and route mail and do clerical work as required; clean automotive compound area; keep records and make reports; ensure vehicles are checked and serviced.

General Maintenance Helper: Under close supervision, may assist others in the repair of machinery and equipment and may perform less difficult tasks independently; assist in the installation and maintenance of electrical equipment such as generators, motors, transformers, switches, controls and circuits; set up machinery and tools and prepares work sites; move materials, equipment and machinery; assist in the construction and repair of structures and fixtures, painting, and installation of hardware.

Mail/Subscription Services Clerk: Under close supervision, may collect and deliver United States, private carrier, and intra-SCAQMD mail, correspondence, packages, and other materials according to established procedures and routes; sort, weigh, and determine means of mail delivery for outgoing mail and packages; pack or unpack materials; operate, maintain, and monitor postage meter machines, electronic scales, and other equipment; operate labeling and printing equipment when preparing mailing labels; assemble and insert materials for mailing; may operate a computer or word processor while making additions, deletions, and other modifications to mailing lists; research mailing list databases and compile new lists for targeted mailings.

Office Assistant: Under close supervision, may type letters, reports, charts, tables, case records, vouchers, or similar documents; proofread finished copy to correct grammar, punctuation, and spelling; process a variety of documents according to established policies and procedures; refer difficult or technical inquiries to other staff; file documents; prepare, arrange, index, cross file and maintain computerized and manual records, logs, rosters and registers; compile data for general information purposes and individual requests for special reports and projects by extracting and/or tabulating information from a variety of sources and predetermined forms or procedures; answer telephone and route incoming calls; direct individuals to appropriate offices and staff; receive, open, and time stamp mail; sort and log correspondence; deliver and pick up various materials, stuff envelopes, and assemble packages for mailing; provide a variety of basic, administrative support duties for management and supervisory personnel, as directed.

Print Shop Duplicator: Under close supervision, may set up and operate computer-controlled duplicating equipment in the production of forms, notices, reports, maps, specifications and other materials, utilizing various sizes and weights of paper, large solids, continuous tone, half-tone and line work; provide advice regarding format, layout, and machine capabilities and alternative methods of duplication; clean, lubricate, adjust and make minor repairs to equipment; perform related work, such as collating, binding, cutting, trimming, padding and punching; operate other types of duplicating equipment.

Stock Clerk: Under close supervision, may stock inventory supply items on shelves or in bins; receive, stock or store supplies, furniture, and equipment; assemble and complete requisition orders; deliver and distribute supplies, equipment, and furniture to various divisions and offices; receive supplies, equipment, and furniture delivered from vendors; move items to the stockroom and warehouse; assist in the inventory and tagging of fixed assets; assist in the disposition of surplus equipment; prepare and maintain records pertaining to the receipt, storage, and distribution of supplies, furniture, and equipment; inventory and reorder stockroom supplies as directed.

All Classes: May perform other related duties as required or assigned.

MINIMUM REQUIREMENTS:

Special Requirements: Current enrollment in, completion of, or current or past eligibility for a California County Department of Children and Family Services' and Probation Department's Independent Living Program; or current enrollment in the Department of Public Works' and Probation Department's Youth Opportunity Program; or current participation in a nonprofit organization program that provides young adults emancipated from a state or local foster care system with job training and career development.

Preparation: Education, knowledge, skills, training OR experience that would demonstrate the capacity to learn and perform the essential duties of the position to which assigned.

Driver's License: Some positions in this classification, depending upon assignment, require possession of a valid California Class C Driver's License to perform job-related essential functions. Candidates offered these positions would be required to show proof of a driver's license before appointment. Some applicants for this position will be required to present a copy of his/her driving record from the California State Department of Motor Vehicles before being appointed. License must not be suspended, restricted, or revoked. An applicant whose driving record shows significant moving violations, and/or at fault accidents, may not be appointed to position that would require operation of a motor vehicle while on duty.

Americans with Disabilities Act of 1990: All positions are open to qualified men and women. Pursuant to the Americans with Disabilities Act of 1990, persons with disabilities who believe they need reasonable accommodation, or help in order to apply for a position, may contact the Human Resources Manager over Recruitment and Selection for assistance.

Physical Classes:

General Maintenance Helper is Physical Class III – Moderate: This class requires that the incumbent stand or walk most of the time with bending, stooping, squatting, twisting, reaching, working or irregular surfaces, occasional lifting of objects weighing over 25 pounds, and frequent lifting of 10-25 pounds.

Fleet Services Worker is Physical Class III – Moderate: This class requires that the incumbent stand or walk most of the time with bending, stooping, squatting, twisting, reaching, working or irregular surfaces, occasional lifting of objects weighing over 25 pounds, and frequent lifting of 10-25 pounds.

Mail/Subscription Service Clerk is Physical Class II – Light: This class includes administrative and clerical positions requiring light physical effort, which may include occasional light lifting to a 10-pound limit, and some bending, stooping, or squatting. Considerable ambulation may be involved.

Office Assistant is Physical Class II – Light: This class includes administrative and clerical positions requiring light physical effort, which may include occasional light lifting to a 10-pound limit, and some bending, stooping, or squatting. Considerable ambulation may be involved.

Print Shop Duplicator is Physical Class III – Moderate: This class requires that the incumbent stand or walk most of the time with bending, stooping, squatting, twisting, reaching, occasional lifting of objects weighing over 70 pounds, and frequent lifting of 10-25 pounds.

Stock Clerk is Physical Class III – Moderate: This class requires that the incumbent stand or walk most of the time with bending, stooping, squatting, twisting, reaching, working or irregular surfaces, occasional lifting of objects weighing over 25 pounds, and frequent lifting of 10-25 pounds.

ATTACHMENT B
CLASSIFICATION SPECIFICATION

TITLE: SOURCE TESTING MANAGER APPROVED:

DEFINITION: Under direction of an Assistant Deputy Executive Officer, manages and provides technical and administrative direction to a unit engaged in a program of air quality control; and does other related work as required.

CLASSIFICATION STANDARDS: This single-position management class is characterized by the responsibility for managing the daily administration of the Source Testing Unit. This class is distinguished by the technical knowledge of source testing of commercial and industrial plant operations, especially energy-generation, chemical and petroleum processes.

ESSENTIAL DUTIES:
Manages the daily administration and operation of the Source Testing Program of the Monitoring and Analysis Division in Science and Technology Advancement.

Supervises professional and technical personnel in the source testing and stack monitoring program; and ensures adherence with the overall goals, objectives and operating procedures of the Source Testing Unit.

Oversees through subordinate staff, the implementation of source testing along with Continuous Emissions Monitors by consultants and/or facilities to ensure compliance with the SCAQMD's or other agency regulations.

Organizes, trains, assigns, reviews and evaluates the work of assigned staff, prepares performance appraisals, and provides technical and administrative supervision, support, coaching and guidance, as necessary.

Identifies and regularly tests all major or sensitive industrial sources of air contaminants.

Develops testing procedures to determine what types of sources contain the greatest number of air contaminants; identifies sources of emissions which are out of compliance with clean air standards and makes recommendations as to the curtailment or reduction of the identified emissions.

Develops source testing and sampling procedures for sources of air contaminants that have not been tested before, such as solid waste, toxic or hazardous materials.

Develops technical specifications and operational guidelines for the Mobile Source Testing Van.

Helps oversee the acceptance of outside laboratories into the Laboratory Approval Program (LAP).

Reviews source test evaluation reports and implements the process for conducting the evaluations.

Directs the development and implementation of source sampling equipment which is made specifically to meet a variety of source testing needs.

TITLE: SOURCE TESTING MANAGER (continued)

Reviews proposed ordinances, resolutions, rules and regulations for enforceability and recommends their adoption, enactment or amendment; analyzes methods and procedures to ensure that application is consistent with SCAQMD rules; develops and revises standardized policies and procedures in the application of the rules; and coordinates with other SCAQMD divisions to ensure consistency of rules application.

May directly participate in the development and adoption of rules that relate to specific commercial or industrial operations.

Coordinates with other divisions and makes recommendations on the review and application of the efficient utilization of SCAQMD staff that inspect commercial and industrial operations.

Oversees the Best Available Control Technology (BACT) and related programs.

Prepares and monitors the unit budget and helps modify, as needed, fees related to the Source Test Unit; recommends resource allocation and fixed asset purchases to meet the actual and anticipated needs of SCAQMD.

Serves as liaison with other SCAQMD offices and public agencies on source testing matters; and may testify in court or before a hearing body.

Advises the Deputy Executive Officer over Science and Technology Advancement on technical matters related to the Source Testing Program.

May supervise staff in one or more units within the division.

MINIMUM REQUIREMENTS:
Training and experience which would demonstrate the knowledge, skills, and abilities in applying chemical and engineering principles to petroleum and chemical processing, electronic and mechanical operations of air monitoring equipment and commercial and industrial plants; knowledge of technical methods and applications involved in the testing and analysis of sources of air contaminants; familiarity with local, State, and federal laws relating to air pollution matters.

Ability to manage personnel through subordinate supervisors; provide innovative solutions to technical problems, such as the application or enforceability of rules and regulations; communicate effectively with all levels of management both orally and in writing; represent the SCAQMD at public meetings and hearings; and resolve sensitive problems involving the public and industry representatives.

Evidence of the required experience, knowledge, skills and abilities may be demonstrated, in part, by graduation with an undergraduate or graduate degree from an accredited college or university, preferably with a major emphasis in chemistry, engineering, physics or a related field.

Evidence of the required experience, knowledge, skills and abilities may also be demonstrated, in part, by either: one year of experience in source testing as a Supervising Air Quality Engineer; or one year of experience as a Senior Air Quality Engineer and two years of source testing experience at the Air Quality Engineer II level; or equivalent.

ATTACHMENT C

RESOLUTION NO. 18-_____

A Resolution of the South Coast Air Quality Management District Board amending SCAQMD's *Salary Resolution* to establish the new classification of Source Testing Manager at an annual salary range of $104,926 - $138,367.

WHEREAS, the Governing Board of the South Coast Air Quality Management District exercises its duty to review and determine appropriate wages, hours, and other terms and conditions of employment provided to employees.

THEREFORE, BE IT RESOLVED that the Board of the South Coast Air Quality Management District, State of California, in regular session assembled on September 7, 2018, does hereby amend Sections 53 and 54 of SCAQMD's *Salary Resolution* to establish the new classification of Source Testing Manager at an annual salary range of $104,926 - $138,367.

DATE:_____ _____

CLERK OF THE BOARDS

Clean Transportation Funding from the MSRC
Mobile Source Air Pollution Reduction Review Committee

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 11

PROPOSAL: Approve Contract Awards and Modifications and Approve Fund Transfer for Miscellaneous and Direct Expenditures Costs in FY 2018-19 as Approved by MSRC

SYNOPSIS: As part of their FYs 2016-18 Work Program, the MSRC approved new contracts under the Local Government Partnership, County Transportation Commission Partnership, and Major Event Center Transportation Programs. The MSRC also approved new contracts under the Natural Gas Infrastructure Program as part of their FYs 2016-18 and 2018-20 Work Programs, a contract value increase for enhancements to the MSRC website as part of their FYs 2018-20 Work Program, and a replacement contract as part of their FYs 2012-14 Work Program. Additionally, every year the MSRC adopts an Administrative Budget which includes transference of funds to the SCAQMD Budget to cover administrative expenses. At this time the MSRC seeks Board approval of the fund transfer and the contract awards and modifications as part of the FYs 2012-14, 2016-18, and 2018-20 Work Programs.

COMMITTEE: Mobile Source Air Pollution Reduction Review, August 16, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Approve nineteen contract awards totaling $1,476,700 under the Local Government Partnership Program, as part of approval of the FYs 2016-18 Work Program, as described in this letter and as follows:
   a. A contract with the City of San Fernando in an amount not to exceed $20,000 to implement citywide signal synchronization;
   b. A contract with the City of South El Monte in an amount not to exceed $30,000 to install at least two electric vehicle charging stations;
   c. A contract with the City of Orange in an amount not to exceed $50,000 to procure up to two heavy-duty near-zero-emission vehicles;
   d. A contract with the City of Los Angeles in an amount not to exceed $300,000 to install at least sixty electric vehicle charging stations;
   e. A contract with the City of Murrieta in an amount not to exceed $143,520 to install at least four electric vehicle charging stations;
   f. A contract with the City of Big Bear Lake in an amount not to exceed $50,000 to install a bicycle path;

g. A contract with the City of Glendora in an amount not to exceed $50,760 to procure a medium-duty zero-emission vehicle;
h. A contract with the City of Santa Clarita in an amount not to exceed $122,000 to install at least eight electric vehicle charging stations;
i. A contract with the City of Temecula in an amount not to exceed $141,000 to install at least sixteen electric vehicle charging stations;
j. A contract with the City of South Pasadena in an amount not to exceed $50,000 to procure up to two light-duty zero-emission vehicles and install at least one electric vehicle charging station;
k. A contract with the City of Monterey Park in an amount not to exceed $25,000 to procure one heavy-duty near-zero-emission vehicle;
l. A contract with the City of Laguna Woods in an amount not to exceed $50,000 to install at least two electric vehicle charging stations;
m. A contract with the City of Gardena in an amount not to exceed $25,000 to procure one heavy-duty near-zero-emission vehicle;
n. A contract with the City of Highland in an amount not to exceed $70,210 to procure one light-duty zero-emission vehicle and install at least three electric vehicle charging stations;
o. A contract with the City of Temple City in an amount not exceed $16,000 to procure up to two light-duty zero-emission vehicles;
p. A contract with the City of Redondo Beach in an amount not to exceed $89,400 to install at least six electric vehicle charging stations;
q. A contract with the City of Laguna Hills in an amount not to exceed $50,000 to install at least six electric vehicle charging stations;
r. A contract with the City of Brea in an amount not to exceed $56,500 to install at least thirteen electric vehicle charging stations; and
s. A contract with the City of Burbank in an amount not to exceed $137,310 to install at least twenty electric vehicle charging stations;

2. Approve sole source contract awards to Orange County Transportation Authority in a total amount not to exceed $2,000,000 under the County Transportation Commission (CTC) Partnership Program, as part of the approval of the FYs 2016-18 Work Program, as described in this letter and as follows:
   a. A contract in an amount not to exceed $1,146,000 to implement the OC Flex Micro-Transit Pilot Project, an on-demand and shared-ride service to extend the reach of the fixed-route transit system;
   b. A contract in an amount not to exceed $642,000 to install a hydrogen detection system to allow the indoor maintenance of hydrogen fuel cell buses; and
   c. A contract in an amount not to exceed $212,000 to implement a College Pass Transit Fare Subsidy Program to provide free rides to students;
3. Approve contract award to Southern California Regional Rail Authority (Metrolink) in an amount not to exceed $252,696 to provide special train and shuttle service to the Festival of Lights in Riverside for 2018 under the Major Event Center Transportation Program, as part of approval of the FYs 2016-18 Work Program, as described in this letter;

4. Approve twenty contract awards totaling $3,926,680 under the Natural Gas Infrastructure Program (using $2,843,500 of the funds originally allocated under the FYs 2016-18 Work Program plus an additional $1,083,180 previously unallocated under the FYs 2018-20 Work Program), as described in this letter and as follows:
   a. A contract with R.F. Dickson Company in an amount not to exceed $265,000 to train technicians and to expand an existing public access station, including the use of renewable natural gas;
   b. A contract with Huntington Beach Union High School District in an amount not to exceed $275,000 to expand an existing public access station;
   c. A contract with Capistrano Unified School District in an amount not to exceed $116,000 to expand an existing limited access station;
   d. A contract with the City of South Gate in an amount not to exceed $175,000 to install a new limited access station;
   e. A contract with Mountain View Unified School District in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
   f. A contract with Newport-Mesa Unified School District in an amount not to exceed $175,000 to expand an existing limited access station;
   g. A contract with Banning Unified School District in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
   h. A contract with the City of Torrance in an amount not to exceed $100,000 to expand an existing limited access station;
   i. A contract with the County of Los Angeles in an amount not exceed $175,000 to install a new limited access station in La Crescenta;
   j. A contract with the City of Commerce in an amount not to exceed $275,000 to expand an existing public access L/CNG station;
   k. A contract with the County of Los Angeles in an amount not to exceed $175,000 to install a new limited access station in Downey;
   l. A contract with the City of San Bernardino in an amount not to exceed $240,000 to train technicians and to expand an existing public access station;
   m. A contract with the City of Beverly Hills in an amount not to exceed $85,272 to expand an existing limited access station;
   n. A contract with LBA Realty in an amount not to exceed $100,000 to install a new limited access station;
   o. A contract with the City of Redondo Beach in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
   p. A contract with the City of Montebello in an amount not to exceed $70,408 to expand an existing limited access station;
   q. A contract with Universal Waste Systems in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas;
   r. A contract with City Rent-A-Bin in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas;

s. A contract with County Sanitation District #2 of Los Angeles County in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas; and
t. A contract with U.S. Gain in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas;

5. Approve a $6,000 contract value increase to existing contract #MS18003 with Geographics to upgrade the MSRC's www.CleanTransportationFunding.org website, as part of approval of the FYs 2018-20 Work Program, as described in this letter;
6. Approve a replacement contract with the City of South Pasadena, in an amount not to exceed $142,096, for the installation of a Class I Bikeway under the Local Government Match Program, as part of approval of the FYs 2012-14 Work Program, as described in this letter;
7. Recognize $56,000 revenue in the General Fund from the AB 2766 Discretionary Fund, Special Fund 23, and appropriate $56,000 to the FY 2018-19 Budget of Science and Technology Advancement, Services and Supplies Major Object, to facilitate the payment of MSRC Miscellaneous Direct and Travel Costs, as provided in Table 1 of this letter;
8. Authorize MSRC the authority to adjust contract awards up to five percent, as necessary and previously granted in prior work programs; and
9. Authorize the Chairman of the Board to execute the new and modified contracts under the FYs 2012-14, 2016-18 and 2018-20 Work Programs, as described above and in this letter.

Larry McCallon
Chair, MSRC

MMM:FM:CR

Background

In September 1990, Assembly Bill 2766 was signed into law (Health & Safety Code Sections 44220-44247) authorizing the imposition of an annual $4 motor vehicle registration fee to fund the implementation of programs exclusively to reduce air pollution from motor vehicles. AB 2766 provides that 30 percent of the annual $4 vehicle registration fee subvened to the SCAQMD be placed into an account to be allocated pursuant to a work program developed and adopted by the MSRC and approved by the Board.

At its August 16, 2018 meeting, the MSRC considered recommended awards under the Local Government Partnership, County Transportation Commission Partnership, Major Event Center Transportation, and Natural Gas Infrastructure Programs. The MSRC also considered a recommended contract modification and a replacement contract. Details are provided below in the Proposals section.

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, public notices advertising the Local Government Partnership Program, Major Event Center Transportation Program, and Natural Gas Infrastructure Program solicitations were published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin. In addition, the solicitations were advertised in the Desert Sun newspaper for expanded outreach in the Coachella Valley.

Additionally, potential bidders may have been notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the solicitations was e-mailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (http://www.aqmd.gov). Further, the solicitations were posted on the MSRC's website at http://www.cleantransportationfunding.org and electronic notifications were sent to those subscribing to this website's notification service.

Proposals

At its August 16, 2018 meeting, the MSRC considered recommendations from its MSRC-TAC and approved the following:

FYs 2016-18 Local Government Partnership Program

The MSRC approved the release of Local Government Partnership PON2018-01 under the FYs 2016-18 Work Program. The Invitation to Negotiate (ITN), with a targeted funding level of $21,180,650, focuses on providing funds for projects to support SCAQMD's 2016 AQMP. Cities and counties which have opted into the AB 2766 motor vehicle registration surcharge fee program are eligible to participate. The majority of participants would be allocated maximum funding equivalent to their annual AB 2766 Subvention Fund allocation; however, those whose annual Subvention Fund allocation is less than $50,000 would be eligible to receive a maximum of $50,000, and the maximum allocation for any single city or county would be $3,000,000. MSRC funding could be used for light-duty zero emission vehicle purchases and leases, medium- and heavy-duty zero emission vehicle purchases, near-zero emission heavy-duty alternative fuel vehicle purchases and repower, electric vehicle charging station installation, and construction or expansion of alternative fuel refueling infrastructure, subject to match funding requirements as outlined in the ITN. Additionally, those jurisdictions eligible for a maximum contribution of $50,000 would have the option to pursue traffic signal synchronization, bicycle active transportation, and first mile/last mile strategies. The ITN includes an open application period commencing with its release on September 1, 2017, and closing August 2, 2018. The MSRC previously approved awards totaling $8,446,972 in response to this solicitation. The MSRC approved nineteen additional awards totaling $1,476,700 as part of the FYs 2016-18 Work Program, as follows:

a. A contract with the City of San Fernando in an amount not to exceed $20,000 to implement citywide signal synchronization;

b. A contract with the City of South El Monte in an amount not to exceed $30,000 to install at least two electric vehicle charging stations;
c. A contract with the City of Orange in an amount not to exceed $50,000 to procure up to two heavy-duty near-zero-emission vehicles;
d. A contract with the City of Los Angeles in an amount not to exceed $300,000 to install at least sixty electric vehicle charging stations;
e. A contract with the City of Murrieta in an amount not to exceed $143,520 to install at least four electric vehicle charging stations;
f. A contract with the City of Big Bear Lake in an amount not to exceed $50,000 to install a bicycle path;
g. A contract with the City of Glendora in an amount not to exceed $50,760 to procure a medium-duty zero-emission vehicle;
h. A contract with the City of Santa Clarita in an amount not to exceed $122,000 to install at least eight electric vehicle charging stations;
i. A contract with the City of Temecula in an amount not to exceed $141,000 to install at least sixteen electric vehicle charging stations;
j. A contract with the City of South Pasadena in an amount not to exceed $50,000 to procure up to two light-duty zero-emission vehicles and install at least one electric vehicle charging station;
k. A contract with the City of Monterey Park in an amount not to exceed $25,000 to procure one heavy-duty near-zero-emission vehicle;
l. A contract with the City of Laguna Woods in an amount not to exceed $50,000 to install at least two electric vehicle charging stations;
m. A contract with the City of Gardena in an amount not to exceed $25,000 to procure one heavy-duty near-zero-emission vehicle;
n. A contract with the City of Highland in an amount not to exceed $70,210 to procure one light-duty zero-emission vehicle and install at least three electric vehicle charging stations;
o. A contract with the City of Temple City in an amount not exceed $16,000 to procure up to two light-duty zero-emission vehicles;
p. A contract with the City of Redondo Beach in an amount not to exceed $89,400 to install at least six electric vehicle charging stations;
q. A contract with the City of Laguna Hills in an amount not to exceed $50,000 to install at least six electric vehicle charging stations;
r. A contract with the City of Brea in an amount not to exceed $56,500 to install at least thirteen electric vehicle charging stations; and
s. A contract with the City of Burbank in an amount not to exceed $137,310 to install at least twenty electric vehicle charging stations.

<u>FYs 2016-18 County Transportation Commission Partnership Program</u>

The MSRC approved release of an Invitation to Negotiate for the CTC Partnership Program under the FYs 2016-18 Work Program. The ITN, with a targeted funding level of $8,000,000, seeks to stimulate the demonstration of innovative projects, as well as expand "tried and true" air quality improvement strategies. CTCs within SCAQMD are

eligible to participate. Other public and private entities could participate as subcontractors to a CTC. Each CTC is eligible to receive a maximum of $2,000,000 on a sole-source contract award basis. Eligible project types include, but are not necessarily limited to: capital improvement projects, capital purchase projects including fleet vehicle purchases that meet, at a minimum, ARB's optional 0.02 g/bhp-hr NOx emissions standard, traffic signal coordination, ridesharing programs, active transportation programs including bicycle sharing projects, transit pass incentive programs, freeway service patrols, first mile/last mile strategies, and information technology projects that focus on air quality improvement. The ITN includes an open application period commencing with its release on December 1, 2017, and closing June 29, 2018. The MSRC previously approved awards totaling $6,000,000 in response to this solicitation. The MSRC considered recommendations concerning three work plans submitted by Orange County Transportation Authority (OCTA).

Firstly, OCTA proposes to apply $1,146,000 towards the implementation of the OC Flex Micro-Transit Pilot Project. This is an on-demand and shared-ride service to extend the reach of the fixed-route transit system by providing connections to areas that may not be served by regular transit. The service would provide micro-transit services to low-demand and/or new markets through shared-ride, curb-to-curb/hub-to-hub service in two zones: one in the City of Huntington Beach, and one in the cities of Aliso Viejo, Laguna Niguel, and Mission Viejo. These areas are typically not transit dependent and one of the goals of the program is to attract new riders by connecting them to key transit and train stations. OCTA is projecting the application of $135,000 in fare revenues as project co-funding. The MSRC approved a sole-source contract award to OCTA in an amount not to exceed $1,146,000 as part of the CTC Partnership Program under the FYs 2016-18 Work Program.

Secondly, OCTA proposes to apply $642,000 towards the installation of a hydrogen detection system in several buildings where maintenance, body work, and washing of hydrogen fuel cell buses will occur. The system will include hydrogen gas detectors, hydrogen flame detectors, control panels, electrical conduit and wiring, warning lights and horns, fire alarm interfacing, and system programming, commissioning and testing. OCTA will provide $176,015 in co-funding. The MSRC approved a sole-source contract award to OCTA in an amount not to exceed $642,000 as part of the CTC Partnership Program under the FYs 2016-18 Work Program.

Lastly, OCTA proposes to apply $212,000 towards the College Pass Transit Fare Subsidy Program. The program would provide free rides to students during a special start up period as an incentive to promote the College Pass Program. After the start up period, a student fee to continue the program at the expense of the college and students must be approved by the majority of the students. This would promote transit ridership among college students and reduce automobile trips and vehicle miles travelled. The MSRC approved a sole-source contract award to OCTA in an amount not to exceed $212,000 as part of the CTC Partnership Program under the FYs 2016-18 Work Program.

FYs 2016-18 Major Event Center Transportation Program

As part of its FYs 2016-18 Work Program, the MSRC allocated $5,000,000 for event center transportation programs and released Program Announcement #PA2017-05. The Program Announcement solicits applications from qualifying major event centers and/or transportation providers to provide transportation service for venues not currently served by sufficient transportation service. To date, the MSRC has awarded a total of $3,660,133. The MSRC considered recommendations concerning an additional application submitted by Metrolink. Metrolink requested the MSRC to consider an award of $252,696 to provide special train and shuttle service the Festival of Lights in downtown Riverside. Service would be provided on three service routes beginning with the Friday, November 23 Switch-On Ceremony and continuing through Saturday, December 15. The downtown Riverside Metrolink station is located approximately six to eight blocks from the Festival events; transfer service from the station to the Festival will be provided via Riverside Transit Agency buses. The service will utilize Tier 4 locomotives. Metrolink and its partners are committed to provide at least $262,804 in operations, marketing, advertising and station support co-funding. The MSRC approved a contract award to Metrolink in an amount not to exceed $252,696 as part of the FYs 2016-18 Work Program for the Festival of Lights special train and shuttle service.

FYs 2016-18 Natural Gas Infrastructure Program

The MSRC approved the release of Program Announcement #PA2017-07 under the FYs 2016-18 Work Program. The Program Announcement, with a targeted funding level of $4.0 million, provides funds for new and expanded natural gas stations, as well as for the upgrade of existing vehicle maintenance facilities and technician training. Stations will be eligible for up to 50 percent of station capital equipment, site construction, signage, and reasonable project management costs, not to exceed the specified maximum award amounts. The maximum MSRC funding per project varies from $100,000 to $275,000 depending upon whether the applicant is a public or private entity, the accessibility level of the proposed project, and the number of fuels offered. Additionally, projects may be eligible for a $100,000 bonus if they commit to use at least 50% renewable natural gas for a minimum of five years. The RFP includes an open application period commencing with its release on June 2, 2017, and closing June 29, 2018. To date, the MSRC has awarded a total of $1,156,500, with $2,843,500 remaining of the original funding allocation. The MSRC considered recommendations concerning twenty additional applications. The MSRC allocated an additional $1,083,180 to the Program as part of the FYs 2018-20 Work Program and approved twenty additional contract awards as part of the FYs 2016-18 and 2018-20 Work Programs, as follows:

a. A contract with R.F. Dickson Company in an amount not to exceed $265,000 to expand an existing public access station, including the use of renewable natural gas, and to train technicians;
b. A contract with Huntington Beach Union High School District in an amount not to exceed $275,000 to expand an existing public access station;
c. A contract with Capistrano Unified School District in an amount not to exceed $116,000 to expand an existing limited access station;

d. A contract with the City of South Gate in an amount not to exceed $175,000 to install a new limited access station;
e. A contract with Mountain View Unified School District in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
f. A contract with Newport-Mesa Unified School District in an amount not to exceed $175,000 to expand an existing limited access station;
g. A contract with Banning Unified School District in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
h. A contract with the City of Torrance in an amount not to exceed $100,000 to expand an existing limited access station;
i. A contract with the County of Los Angeles in an amount not exceed $175,000 to install a new limited access station in La Crescenta;
j. A contract with the City of Commerce in an amount not to exceed $275,000 to expand an existing public access L/CNG station;
k. A contract with the County of Los Angeles in an amount not to exceed $175,000 to install a new limited access station in Downey;
l. A contract with the City of San Bernardino in an amount not to exceed $240,000 to expand an existing public access station and to train technicians;
m. A contract with the City of Beverly Hills in an amount not to exceed $85,272 to expand an existing limited access station;
n. A contract with LBA Realty in an amount not to exceed $100,000 to install a new limited access station;
o. A contract with the City of Redondo Beach in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
p. A contract with the City of Montebello in an amount not to exceed $70,408 to expand an existing limited access station;
q. A contract with Universal Waste Systems in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas;
r. A contract with City Rent-A-Bin in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas;
s. A contract with County Sanitation District #2 of Los Angeles County in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas; and
t. A contract with U.S. Gain in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas.

FYs 18-20 Current MSRC Website Hosting and Maintenance

Hosting and maintenance of the MSRC's www.CleanTransportationFunding.org website is provided by Geographics under contract #MS18003. Earlier this year, the MSRC directed its staff to look into the feasibility of adding the Google Translate service to the site. Geographics provided a quote of $600 for this update. While this work could be accomplished within the existing contract balance, it raised concerns that there might not be sufficient funds to address critical future needs on an urgent basis. The MSRC-TAC

identified additional potential updates including the troubleshooting of test e-mails functions, adding a feature for changing the display order of RFP postings, and troubleshooting the Contractor Online Summary function. The MSRC approved the specified updates, as well as a $6,000 contract value increase to implement them with the remaining funds to be applied to the on-call reserve, as part of the FYs 2018-20 Work Program.

FYs 2012-14 Local Government Match Program

As part of the FYs 2012-14 Work Program, the MSRC awarded the City of South Pasadena $142,096 to install an approximately 0.6 mile segment of a Class I Bikeway. The contract lapsed on February 11, 2018. The City had completed the work, but a safety concern delayed the opening of the trail until June 2018. Shortly thereafter, the City submitted a request to complete the project. The MSRC considered and approved a six-month replacement contract in the amount of $142,096 as part of the FYs 2012-14 Work Program.

At this time, the MSRC requests the SCAQMD Board to approve the contract awards and modifications as part of approval of the FYs 2012-14, 2016-18 and 2018-20 AB 2766 Discretionary Fund Work Programs as outlined above. The MSRC also requests the Board to authorize the SCAQMD Chairman of the Board the authority to execute all agreements described in this letter. The MSRC further requests authority to adjust the funds allocated to each project specified in this Board letter by up to five percent of the project's recommended funding. The Board has granted this authority to the MSRC for all past Work Programs.

FY 2018-19 Administrative Budget

Every year the MSRC adopts an Administrative Budget for the upcoming fiscal year to ensure costs remain within the limitation, currently 6.25 percent. For FY 2018-19, the MSRC adopted an Administrative Budget in the amount of $763,238, which is nearly $250,000 below the 6.25 percent cap. Administrative expenditures are not directly drawn, however, from the MSRC fund account, but instead from the SCAQMD's budget. To cover these expenses, the MSRC approved a fund transfer (see Table 1 for further details).

Table 1. Estimated FY 2018-19 MSRC Miscellaneous and Direct Expenditures Proposed to be Allocated to SCAQMD Science and Technology Advancement FY 2018-19 Budget

	Work Program Code	Account	Amount
Professional & Special Services	44003	67450	$9,000
Public Notice	44003	67500	$8,000
Communications	44003	67900	$5,000
Postage	44003	68060	$7,500
Office Expense/Supplies	44003	68100	$12,000
Miscellaneous Expense	44003	69700	$7,000
Conference- Related Expense	44003	69700	$5,000
Travel Costs	44003	67800	$2,500
Total			**$56,000**

Sole Source Justification

As an element of its FYs 2016-18 Work Program, the MSRC allocated $8 million for a program to partner with the Region's County Transportation Commissions to stimulate the development of innovative projects, as well as expand "tried and true" air quality improvement strategies. As discussed in Proposals above, this program will be implemented by initiating sole-source contracts with CTCs. While the MSRC and SCAQMD strive to retain technical services on a competitive basis, the SCAQMD's Procurement Policy and Procedure recognizes that, at times, the required services are available from only one source, making the pursuit of a competitive procurement futile. OCTA is the primary transit provider for Orange County. Thus, OCTA is the entity responsible for providing transit services, procuring buses to provide transit service, and fostering greater use of transit in their jurisdiction. This request for a sole source award is made under provision VIII.B.2.c.(1): The desired services are available from only the sole source due to the unique experience and capabilities of the proposed contractor or contractor team.

Resource Impacts

The SCAQMD acts as fiscal administrator for the AB 2766 Discretionary Fund Program (Health & Safety Code Section 44243). Money received for this program is recorded in a special revenue fund (Fund 23) and the contracts specified herein will be drawn from this fund.

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 12

REPORT: Legislative, Public Affairs and Media Report

SYNOPSIS: This report highlights the June and July 2018 outreach activities of the Legislative, Public Affairs and Media Office, which includes: Major Events, Community Events/Public Meetings, Environmental Justice Update, Business Assistance, Media Relations and Outreach to Business and Federal, State, and Local Government.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

DJA:LTO:DM:jns

BACKGROUND
This report summarizes the activities of the Legislative, Public Affairs and Media Office for June and July 2018. The report includes important areas of: Major Events & Community Events/Public Meetings' Environmental Justice Update; and the Speakers Bureau/Visitor Services, Communications Center, and Public Information Center; Business Assistance; Media Relations; and Outreach to Business and Governments.

MAJOR EVENTS (HOSTED AND SPONSORED)
Each year SCAQMD staff engage in holding and sponsoring a number of major events throughout the SCAQMD's four county area to promote, educate and provide important information to the public regarding reducing air pollution, protecting public health, and improving air quality and the economy.

June 20
Staff held a Town Hall Meeting in Paramount which was attended by approximately 50 members of the public and interested stakeholders. The staff presentation included an update on air monitoring and the revised plan for future monitoring, and information on studies to evaluate other potential sources of hexavalent chromium.

COMMUNITY EVENTS/PUBLIC MEETINGS

Each year SCAQMD staff engage with thousands of residents, providing valuable information about the agency, incentive programs and ways individuals can help reduce air pollution through events and meetings sponsored solely by SCAQMD or in partnership with others. Attendees typically receive the following information:

- Tips on reducing their exposure to smog and its health effects;
- Clean air technologies and their deployment;
- Invitations or notices for conferences, seminars, workshops and other public events;
- SCAQMD incentive programs;
- Ways to participate in SCAQMD's rule and policy development; and
- Assistance in resolving air pollution-related problems.

SCAQMD staff attended and/or provided information and updates at the following events:

June 2

- Children's Hospital of Orange County (CHOC) Air Power Games, Santa Ana College.

June 3

- World Environment Day 2018, Palm Springs Pavilion.

June 9

- Los Angeles Community Clean Up, Los Angeles County 1st Supervisorial District, Los Angeles.

June 13

- San Bernardino County Transportation Authority (SBCTA) 2018 General Assembly, Ontario Convention Center.

June 21

- Western Riverside Council of Governments (WRCOG) General Assembly Meeting, Cabazon.

June 23

- Health & Housing Resource Fair, MacArthur Park, Long Beach.

June 28

- Arcadia Environmental Fair, Arcadia.

July 6

- "Red, White, and Bounce Health and Wellness Fair, 48th Assembly District, El Monte.

July 20

- Annual Senior Briefing & Health Fair, 44th Congressional District, Carson Community Center.

July 28-29

- 23rd Annual Central Ave Jazz Festival, South Los Angeles.

ENVIRONMENTAL JUSTICE UPDATE

The following are key environmental justice-related activities in which staff participated during June and July 2018. These events involve communities which suffer disproportionately from adverse air quality impacts.

June 6, 13, 19, and 21

Staff organized and facilitated a series of AB 617 meetings held throughout the South Coast Air Basin including Jurupa Valley, South Gate, Colton, and San Fernando. Staff shared information regarding the community prioritization process and provided an update on which communities would be recommended to CARBfor first year funding. Community input was taken though small group roundtable discussions.

June 27

Staff provided an update on AB 617 at the Eastern Coachella Valley Environmental Justice Enforcement Task Force meeting in Indio. There were approximately 40 attendees, including representatives from legislative offices, agencies, and the California Air Resources Board.

June 28

SCAQMD partnered with the California Environmental Protection Agency (CalEPA) for its second annual Inter-Agency Summit in downtown Los Angeles. The SCAQMD and CalEPA met with environmental justice groups and various governmental agencies with jurisdiction in Los Angeles County to discuss how agencies manage environmental complaints, and how to collaborate with one another to improve the complaint process.

July 18

Staff participated in the Riverside County Health Coalition General Membership Meeting. Staff met with Riverside University Health System and La Unión Hace la Fuerza regarding air quality issues and monitoring in the Eastern Coachella Valley. La Unión Hace la Fuerza also expressed an interest in air filtration for homes and schools.

July 19
Staff participated in the Moreno Valley/Perris Transportation NOW meeting to provide an update on SCAQMD efforts and air quality issues. The MSRC Local Government Partnership program was highlighted as the meeting is well attended by city representatives and staff of local elected officials.

SPEAKERS BUREAU/VISITOR SERVICES
SCAQMD regularly receives requests for staff to speak on air quality-related issues from a wide variety of organizations, such as trade associations, chambers of commerce, community-based groups, schools, hospitals and health-based organizations. SCAQMD also hosts visitors from around the world who meet with staff on a wide range of air quality issues.

June 26

- Staff provided information on impacts of air pollution in communities and displayed and shared information about alternative fuel vehicles to over 100 students at the Immanuel Praise Fellowship STEM Academy in Rancho Cucamonga.

July 19

- Staff provided an overview of SCAQMD and air quality issues, and a tour of SCAQMD headquarters, including its laboratory and alternative fueling stations and vehicles to a group of 15 parents and students from the Youth Science Center in Hacienda Heights.

COMMUNICATION CENTER STATISTICS
The Communication Center handles calls on SCAQMD's main line, the 1-800-CUT-SMOG® line, the Spanish line, and after-hours calls to each of those lines. Total calls received in the months of June and July were:

Calls to SCAQMD's Main Line and 1-800-CUT-SMOG® Line	6,135
Calls to SCAQMD's Spanish-language Line	71
Total Calls	6,206

PUBLIC INFORMATION CENTER STATISTICS

The Public Information Center (PIC) handles phone calls and walk-in requests for general information. Information for the months of June and July is summarized below:

Calls Received by PIC Staff	275
Calls to Automated System	1,713
Total Calls	1,988
Visitor Transactions	538
Email Advisories Sent	15,016

BUSINESS ASSISTANCE

SCAQMD notifies local businesses of proposed regulations so they can participate in the agency's rule development process. SCAQMD also works with other agencies and governments to identify efficient, cost-effective ways to reduce air pollution and shares that information broadly. Staff provides personalized assistance to small businesses both over the telephone and via on-site consultation. The information is summarized below:

- Provided permit application assistance to 415 companies;
- Processed 51 Air Quality Permit Checklists'
- Issued 82 clearance letters; and
- Conducted 6 free on-site consultations.

Types of businesses assisted

Auto Body Shops	Dry Cleaners	Furniture Refinishing Facilities
Plating Facilities	Gas Stations	Engineering, Construction, & Architecture Firms
Auto Repair Centers	Restaurants	
Manufacturing Facilities	Printing Facilities	

MEDIA RELATIONS

The Media Office handles all SCAQMD outreach and communications with television, radio, newspapers and all other publications and media operations.

Total Media Inquiries: 150
Press Releases Issued: 7
Air Quality Advisories Issued: 16

Major Media Topics for June and July
All inquiries closed unless noted as pending

- **SoCalGas news release** – The Executive Officer was quoted in SoCalGas' news release titled, "Renewable Natural Gas Produced in California by CR&R Flows into SoCalGas Pipelines for First Time."

- **Rule 1403/Asbestos investigation** – Staff provided information to KCAL on requirements of SCAQMD's Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities. Staff also prepared a draft news release and spoke with reporters from KNBC 4 News and KCAL regarding SCAQMD's asbestos investigation at an apartment complex on Prosser Street in Los Angeles. CBS 2/KCAL 9 News further requested information on any SCAQMD enforcement action in connection with the investigation.
- **World Oil** – A reporter with KCET inquired about World Oil complaints, NOVs, and penalties, and requested copies of all investigation reports. Staff assisted in filing a public records request and provided links to Board letters providing additional information.
- **Paramount** – Staff spoke with a reporter from KPCC seeking an update to SCAQMD's air monitoring for hexavalent chromium in Paramount and next steps for proposed mitigation of modified hydrogen fluoride risk at the Andeavor Refinery in Torrance.
- **STAR Grants** – Staff conducted an interview with the L.A. Times and SCAQMD staff for a story on SCAQMD's sensor network development as part of the EPA STAR grant. Staff also provided names of organizations participating in STAR grant programs.
- **Wildfires** – Staff conducted interviews with reporters from Fox 11, the Press Enterprise and KHTS who were seeking air quality information related to the Portola and Euclid fires.
- **Hydrogen Fluoride** – Staff was interviewed by KPCC regarding HF and what steps SCAQMD is taking regarding mitigation measures versus a ban, and general air quality issues in the South Bay area. Staff also responded to a request from a reporter for Truthout.com regarding a report prepared by a member of the Torrance Refinery Action Alliance on consequences of potential terrorism at local refineries, and development of Proposed Rule 1410 – Hydrogen Flouride Storage and Use.
- **Unhealthy Air Quality** – Staff was interviewed by KNX 1070, KHTS, the Southern California News Group and ABC7 about unhealthy air quality levels in Los Angeles, Riverside, and San Bernardino counties. Staff also participated in interviews with KPCC radio and The (Santa Clarita) Signal newspaper regarding air quality in the San Gabriel Valley and Santa Clarita Valley.
- **Proposed rollbacks on vehicle fuel economy regulations**– Staff responded to a request from a reporter from KCET about SCAQMD's position on possible US EPA rollback of fuel-economy standards.
- **Sentinel Advertorial** – Staff wrote an advertorial and provided photos for the Los Angeles Sentinel on the success of the Carl Moyer Program.
- **Electric Buses** – IWP news requested a response to news articles reporting poor performance in BYD (Build Your Dreams) electric school buses. The reporter inquired whether SCAQMD had provided grant funding for the school buses in question. Staff informed the reporter that SCAQMD has not funded BYD transit buses.

- **Diesel Emissions in Mira Loma area** – Staff conducted an interview with a freelance writer for the L.A. Review on diesel truck emissions in the Mira Loma area, SCAQMD's role in commenting on CEQA documents for warehouses and other general air quality topics.
- **USC Study on PM2.5 Modeling in LA County** – Staff prepared talking points in response to a USC study and accompanying web story that produced a list of best- and worst-ranked communities for PM2.5 exposure. Many of the rankings contradicted SCAQMD monitoring and modeling data.
- **Impacts of Fireworks and Hot Weather on Air Quality** – Staff responded to queries from the L.A. Times, OC Register, KNX and KPCC on health impacts from Fourth of July fireworks.
- **EV Infrastructure**/Daimler Trucks North America LLC (DTNA) – Staff responded to questions from The Daily Breeze on the scale of the proposed DTNA development and demonstration of 20 heavy-duty electric trucks and EV infrastructure in the ports. Trucks.com inquired about the ending date of the DTNA demonstration project.
- **Air Quality/Wildfire Smoke/Advisories**—NBC4, KNBC, KFI and KPCC requested interviews on air quality conditions in response to heat conditions, fire conditions, and smog. Staff arranged recorded and live interviews for radio and television news.
- **Seal Beach Odors** – The Sun News requested information on an incident of foul, rotten-egg type odors in Seal Beach on July 16.
- **Brea-area Oil Wells** – Fullerton Observer requested information on the status of fracking/well activity at Brietburn oil wells in local areas, where no fracking incidents were being reported. Staff confirmed that equipment for fracking had been updated/replaced, but no fracking activity was occurring.
- **SCAQMD compliance trends** – The L.A. Times requested an interview in follow-up to a compliance summary provided to them in a recent public records request.
- **SCAQMD's webpage on super-compliant, no-VOC paints** – Staff provided information to the Austin (Texas) Environmental Directory on SCAQMD's criteria for posting products to the web page.

Rule Changes

Bloomberg News requested updates on proposed changes to Rules 1135 – Emissions of Oxides of Nitrogen from Electric Power Generating Systems, 2001 – Applicability, and 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx).

Media Campaigns

Check Before You Burn:

- Kick-off meeting held on July 24.
- Contractor submitted a list of new/updated outreach strategies based on feedback from staff.

The Right to Breathe

- Foreign-language subtitles completed; DVD with subtitles now in post-production.
- Redispatched DVD to U.S. Copyright Office to replace version damaged in mail.
- The Google AdWords campaign received 5,163 clicks, 4.7 million impressions, and 1.9 million views during June.
- In-house production of subtitled DVDs underway.
- The Google AdWords campaign received 5,485 clicks, 5.013 million impressions, and 2.208 million views during July.

News Releases & Media Advisories Issued

- SCAQMD Issues Smoke Advisory for Fire Burning in the Aliso Canyon and Laguna Beach Area of Orange County - June 2, 2018
- SCAQMD Continues Smoke Advisory for Fire Burning in the Aliso Canyon and Laguna Beach Area of Orange County - June 3, 2018
- SCAQMD Answers Call to Lend Air Monitors to Hawaii's Big Island - June 6, 2018
- SCAQMD Launches Home Furnace Rebate Program - June 20, 2018
- SCAQMD Issues Particulate Advisory for Fireworks - July 3, 2018
- SCAQMD Issues Ozone Advisory due to Heat Wave - July 6, 2018
- SCAQMD and Daimler Trucks North America Partner to Demonstrate Zero-Emission Vehicles at Ports - July 6, 2018
- SCAQMD Issues Smoke Advisory Due to Multiple Wildfires - July 7, 2018
- SCAQMD Issues Smoke Advisory Due to Valley Fire - July 7, 2018
- SCAQMD Continues Smoke Advisory Due to Multiple Wildfires - July 8, 2018
- SCAQMD Issues Windblown Dust Advisory - July 9, 2018
- SCAQMD Continues Smoke Advisory Due to Valley Fire - July 9, 2018
- SCAQMD Continues Smoke Advisory Due to Valley Fire - July 10, 2018
- SCAQMD Issues Windblown Dust Advisory - July 10, 2018
- SCAQMD Launches Web Portal Providing Improved Public Access to Geographic-Based Air Quality Information - July 11, 2018
- SCAQMD Response to USC Study - July 17, 2018
- SCAQMD Continues Smoke Advisory Due to Skyline Fire - July 20, 2018
- SCAQMD Issues Ozone Advisory Due to Heat Wave - July 25, 2018
- SCAQMD Issues Smoke Advisory Due to Cranston Fire - July 25, 2018
- SCAQMD Issues Smoke Advisory Due to Cranston Fire - July 26, 2018
- SCAQMD Extends Smoke Advisory Due to Cranston Fire - July 27, 2018
- SCAQMD Extends Smoke Advisory Due to Cranston Fire - July 29, 2018
- SCAQMD Extends Smoke Advisory Due to Cranston Fire - July 30, 2018

OUTREACH TO COMMUNITY GROUPS AND FEDERAL, STATE, AND LOCAL GOVERNMENTS

Field visits and/or communications were conducted with elected officials or staff from the following cities:

Alhambra
Anaheim
Arcadia
Azusa
Baldwin Park
Big Bear
Brea
Buena Park
Burbank
Carson
Chino
Claremont
Covina
Colton
Cypress
Diamond Bar
Duarte
Eastvale
El Monte
El Segundo
Gardena
Glendora
Glendale
Hawthorne
Hemet
Hermosa Beach
Huntington Beach
Inglewood
Industry
Jurupa Valley
La Cañada Flintridge
La Puente
La Verne
Lawndale
Lake Forest
Los Angeles
Lomita
Long Beach
Manhattan Beach
Monrovia
Monterey Park
Moreno Valley
Murrieta
Norco
Paramount
Palos Verdes Estates
Perris
Pomona
Rancho Cucamonga
Rancho Palos Verdes
Rialto
Redondo Beach
Rolling Hills
Rolling Hills Estates
Rosemead
San Bernardino
Santa Ana
San Dimas
San Fernando
San Gabriel
San Jacinto
San Marino
Sierra Madre
South Gate
South El Monte
South Pasadena
Temple City
Torrance
Tustin
Walnut
West Covina

Visits and/or communications were conducted with elected officials or staff from the following state and federal offices:

- U.S. Senator Richard Burr
- U.S. Senator Dianne Feinstein
- U.S. Representative Pete Aguilar
- U.S. Representative Judy Chu
- U.S. Representative Paul Cook
- U.S. Representative Lou Correa
- U.S. Representative Peter DeFazio
- U.S. Representative Trey Hollingsworth
- U.S. Representative Steny Hoyer
- U.S. Representative Steve Knight
- U.S. Representative Ted Lieu
- U.S. Representative Alan Lowenthal
- U.S. Representative Tom O'Halleran
- U.S. Representative Raul Ruiz
- U.S. Representative Tom Reed
- U.S. Representative Lucille Roybal-Allard
- U.S. Representative Ed Royce
- U.S. Representative John Shimkus
- U.S. Representative Mark Takano
- U.S. Representative Mimi Walters

- Senator Steven Bradford
- Senator Ed Hernandez
- Senator Ricardo Lara
- Senator Janet Nguyen
- Senator Anthony Portantino
- Senator Richard Roth
- Assembly Member Sabrina Cervantes
- Assembly Member Ed Chau
- Assembly Member Eduardo Garcia
- Assembly Member Chris Holden
- Assembly Member Jose Medina
- Assembly Member Melissa Melendez
- Assembly Member Al Muratsuchi
- Assembly Member Blanca Rubio
- Assembly Member Sharon Quirk-Silva

Staff represented SCAQMD and/or provided updates or a presentation to the following governmental agencies and business organizations:

Anaheim Chamber of Commerce
California Air Resources Board
California Department of Transportation
City of Chino, Healthy Chino Initiative Program
Colorado River Basin Regional Water Control Board
Coachella Valley Mosquito & Vector Control District
Inland Empire Jobs Corp
Long Beach Chamber of Commerce
Los Angeles Economic Development Corporation
Orange County Business Council
Orange County Council of Governments
Orange County Transportation Authority
Pasadena Water and Power
Redlands Chamber of Commerce
Riverside County Agricultural Commission
San Bernardino Chamber of Commerce
San Bernardino County Transportation Authority
San Fernando Valley Council of Governments
South Pasadena Chamber of Commerce
South Bay Cities Council of Governments
Santa Ana Chamber of Commerce
San Gabriel Valley Council of Governments
San Gabriel Valley Economic Partnership
U.S. Environmental Protection Agency
Upland Chamber of Commerce
Upper San Gabriel Municipal Water District

Staff represented SCAQMD and/or provided updates or a presentation to the following community and educational groups and organizations:

California State University, Los Angeles
Cabazon Band of Mission Indians
Cabrillo Beach Community Group, San Pedro
Coachella Valley Environmental Justice Task Force
Green Meadows Community Group, Harbor City
Inland Action
La Unión Hace la Fuerza
Leadership Council for Justice and Accountability, Coachella Valley
Lideres Campesinas, California
Loma Linda University
Riverside Transit Agency
STEM Academy, Rancho Cucamonga
Sustainable Claremont
Temescal Valley Advisory Council
Torch Middle School, City of Industry
University of California, Irvine
Urban Conservation Corps, Indio

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 13

REPORT: Hearing Board Report

SYNOPSIS: This reports the actions taken by the Hearing Board during the period of June 1 through July 31, 2018.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Julie Prussack
Chairman of Hearing Board

DG

Three summaries are attached: **June 2018 and July 2018 Hearing Board Cases** and **Rules From Which Variances and Orders for Abatement Were Requested in 2018**. An Index of District Rules is also attached.

The total number of appeals filed during the period June 1 to July 31, 2018 is 0; and total number of appeals filed during the period of January 1 to July 31, 2018 is 0.

Report of June 2018 Hearing Board Cases

Case Name and Case No. (SCAQMD Attorney)	Rules	Reason for Petition/Hearing	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
1. Eastern Municipal Water District Case No. 4937-57 (S. Pruitt)	203(b) 1110.2(d)(1)(F) 1110.2(d)(1)(H) 3002(c)(1)	Facility requested an extension of time for its two biofuel/natural gas engines to meet emission limits by replacing the engines with zero-emission electric engines after failed technology demonstrations.	Not Opposed/Granted	RV granted commencing 1/1/19 and continuing through 6/30/20, the FCD.	NOx: 12.3 lbs/day CO: 2.5 lbs/day VOC: 3 lbs/day
2. Equilon Enterprises LLC DBA Shell Oil Products US Carson Terminal Case No. 4982-115 (B. Tomasovic)	203(b) 463(c)(2) 463(d)(2) 463(e)(4) 463(f)(1)(C) 1149(c)(1) 1149(c)(2) 1149(c)(7) 1178(d)(3) 1178(g) 1178(h)(4) 2004(f)(1) 3002(c)(1)	Facility requested an extension of time to empty and degas a tank after fire damaged the tank.	Not Opposed/Granted	Ex Parte EV granted commencing 6/15/18 and continuing for 30 days or until the EV hearing scheduled for 6/20/18, whichever comes first.	VOC: 1.6 lbs/day
3. Equilon Enterprises LLC DBA Shell Oil Products US Carson Terminal Case No. 4982-115 (D. Hsu)	203(b) 463(c)(2) 463(d)(2) 463(e)(4) 463(f)(1)(C) 1178(d)(3) 1178(g) 1178(h)(4) 2004(f)(1) 3002(c)(1)	Facility requested an extension of time to empty and degas a tank after fire damaged the tank.	Not Opposed/Granted	EV granted commencing 6/20/18 and continuing through 7/15/18.	VOC: 1.6 lbs/day
4. Insulfoam, a Division of Carlisle Construction Materials, LLC Case No. 5333-5 (M. Reichert)	1147	Facility sought emergency relief for its RTO from NOx emission limits.	Not Opposed/Denied	Ex Parte EV denied.	N/A

Case Name and Case No. (SCAQMD Attorney)	Rules	Reason for Petition/Hearing	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
5. SCAQMD vs. Mission Community Hospital Case No.6109-1 (N. Sanchez)	1146(d)(6) 1146(d)(8)	Boilers out of compliance.	Stipulated/Issued	O/A issued commencing 6/20/18; the Hearing Board shall retain jurisdiction over this matter until 12/31/18.	N/A
6. SCAQMD vs. Sunshine Canyon Landfill Case No. 3448-14 (N. Sanchez)	N/A	Status report.	No Action	The Hearing Board received a status report and continued the hearing to 12/12/18.	N/A
7. SCAQMD vs. Sheraton Townhouse, L.P. Case No. 6106-1 (D. Hsu)	203(a) 222 1146.2 1470	Boiler and ICE out of compliance.	Stipulated/Issued	O/A issued commencing 6/13/18; the Hearing Board shall retain jurisdiction over this matter until 6/13/19.	N/A
8. SCAQMD vs. Sherman Oaks Hospital Case No. 6108-1 (D. Hsu)	1146.2(e) 1415(d)(1)(A)	Respondent required to perform necessary source tests on boilers.	Stipulated/Issued	O/A issued commencing 6/14/18; the Hearing Board shall retain jurisdiction over this matter until 6/14/19.	N/A

Acronyms

CEMS: Continuous Emissions Monitoring System
CO: Carbon Monoxide
EV: Emergency Variance
FCD: Final Compliance Date
H&S: Health and Safety Code
H2S: Hydrochloric Sulfide
ICE: Internal Combustion Engine
Mod. O/A: Modification Order for Abatement
N/A: Not Applicable
NOx: Oxides of Nitrogen
O/A: Order for Abatement
PM: Particulate Matter
PPM: Parts Per Million
RTO: Regenerative Thermal Oxidizer
RV: Regular Variance
SOx: Oxides of Sulfur
TBD: To Be Determined
VOC: Volatile Organic Compounds

Report of July 2018 Hearing Board Cases

Case Name and Case No. (SCAQMD Attorney)	Rules	Reason for Petition	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
1. Alondra Oil Inc. Case No. 6114-1 (D. Hsu)	461(e)(5)	GDF failed vent line blockage test.	Not Opposed/Granted	Ex Parte EV granted commencing 7/13/18 and continuing through 7/24/18, when the EV hearing is scheduled.	VOC: TBD by 7/24/18
2. Alondra Oil Inc. Case No. 6114-1 (S. Pruitt)	461(e)(5)	GDF failed vent line blockage test.	Opposed/Granted	EV granted commencing 7/24/18 and continuing through 8/11/18.	None
3. Carpenter Company Case No. 5356-2 (M. Reichert)	1147	Petitioner sought to operate while remedying failed NOx source test from SCR system.	Not Opposed/Granted	IV granted commencing 7/11/18 and continuing through 8/22/18, when the RV hearing is scheduled.	NOx: .9 lbs/day
4. Eastern Municipal Water District Case No. 4937-58 (D. Hsu)	202(a) 203 (b) 3002(c)(1)	Petitioner requested to bypass biofilter during brief periods of re-piping during facility upgrade.	Not Opposed/Granted	SV granted for two non-continguous days within a period commencing on the date that notice is given to the District that work will commence under Condition (1)(a) and ending 90 days after that date, or on the date that work under Condition (1)(b) has been completed, whichever occurs first.	None
5. Mahmood Hussain Yucaipa Food Mart 76 Case No. 6113-1 (S. Hanizavareh)	461(c)(2)(B) 461(c)(3)(P) 461(e)(5)	GDF awaiting certification for repairs made to vapor recovery system.	Not Opposed/Granted	Ex Parte EV granted commencing 7/3/18 and continuing through 7/5/18.	VOC: TBD by 7/5/18
6. SCAQMD vs. MatchMaster Dyeing & Finishing, Inc. Case No 6110-1 (M. Reichert)	402 H&S §41700	Odor nuisance.	Stipulated/Issued	O/A issued commencing 7/24/18 and continuing through 1/30/2019. The Hearing Board shall retain jurisdiction over this matter until 1/30/2019.	N/A

Case Name and Case No. (SCAQMD Attorney)	Rules	Reason for Petition	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
7. SCAQMD vs. Henry Romero dba Costa Mesa Collision and Auto Painting Case No 6112-1 (B. Tomasovic)	203(a)	Operating paint spray booth without a permit.	Not Stipulated/Issued	O/A issued commencing 7/19/18 and continuing through 7/19/2021. The Hearing Board shall retain jurisdiction over this matter until 7/19/2021.	N/A
8. Torrance Refining Company Case No. 6060-9 (T. Barrera)	203(b) 2004(f)(1) 3002(c)(1)	Petitioner must disconnect control equipment to make necessary repairs.	Not Opposed/Granted	Ex Parte EV granted commencing 7/26/18 and continuing through 7/31/18 when the EV hearing is scheduled.	NOx: 5,194 lbs/day

Acronyms

AOC: Alternative Operating Conditions
CEMS: Continuous Emissions Monitoring System
CO: Carbon Monoxide
EV: Emergency Variance
FCD: Final Compliance Date
GDF: Gasoline Dispensing Facility
H&S: Health and Safety Code
H2S: Hydrochloric Sulfide
IV: Interim Variance
Mod. O/A: Modification Order for Abatement
N/A: Not Applicable
NOx: Oxides of Nitrogen
O/A: Order for Abatement
PM: Particulate Matter
PPM: Parts Per Million
RV: Regular Variance
SCR: Selective Catalytic Reduction
SV: Short Variance
SOx: Oxides of Sulfur
TBD: To Be Determined
VOC: Volatile Organic Compounds

Rules from which Variances and Orders for Abatement were Requested in 2018														
2018	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Total Actions***
# of HB Actions Involving Rules														
109(c)(1)			1										1
202(a)							1						1
203(a)			2			1	1						4
203(b)	2	4	2	4	2	3	2						19
222						1							1
402							1						1
431.1(c)(2)				2	1	1							4
461(c)(2)(B)							1						1
461(c)(3)(P)							1						1
461(e)(5)							3						3
463(c)(2)						2							2
463(d)(2)						2							2
463(e)(4)						2							2
463(f)(1)(C)						2							2
1110.2(d)(1)(F)						1							1
1110.2(d)(1)(H)						1							1
1110.2(d)(1)(L)			1										1
1146(d)(6)						1							1
1146(d)(8)						1							1
1146.2						1							1
1146.2(e)						1							1
1147						1	1						2
1147(c)(1)	1												1
1149(c)(1)						1							1
1149(c)(2)						1							1
1149(c)(7)						1							1
1178(d)(3)						2							2
1178(g)						2							2
1178(h)(4)						2							2
1407			1										1
1415(d)(1)(A)						1							1
1420.2			2		1								3
1470						1							1
2004(f)(1)	2	3		2		2	1						10
2011(c)(2)(A)	1												1
2011(c)(2)(B)	1												1
2011(e)(1)	1												1
2012(c)(2)(A)	1												1
2012(c)(2)(B)	1												1
2012(g)(1)	1												1
3002(c)	1												1
3002(c)(1)	1	3		3		3	2						12
H&S 41700							1						1

DISTRICT RULES AND REGULATIONS INDEX
FOR 2018 HEARING BOARD CASES AS OF JULY 31, 2018

REGULATION I – GENERAL PROVISIONS

Rule 109 Recordkeeping for Volatile Organic Compound Emissions

REGULATION II – PERMITS

Rule 202 Temporary Permit to Operate
Rule 203 Permit to Operate
Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

REGULATION IV – PROHIBITIONS

Rule 402 Nuisance
Rule 431.1 Sulfur Content of Gaseous Fuels
Rule 461 Gasoline Transfer and Dispensing
Rule 463 Organic Liquid Storage

REGULATION XI - SOURCE SPECIFIC STANDARDS

Rule 1110.2 Emissions from Gaseous- and Liquid-Fueled Internal Combustion Engines
Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters
Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters
Rule 1147 NOx Reductions from Miscellaneous Sources
Rule 1149 Storage Tank and Pipeline Cleaning and Degassing
Rule 1178 Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities

REGULATION XIV – TOXICS AND OTHER NON-CRITERIA POLLUTANTS

Rule 1407 Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Ferrous Metal Melting Operations
Rule 1415 Reduction of Refrigerant Emissions from Stationary Air Conditioning Systems
Rule 1420.2 Emission Standard for Lead from Metal Melting Facilities
Rule 1470 Requirements for Stationary Diesel-Fueled Internal Combustion and Other Ignition Engines

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004	Requirements
Rule 2011	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SOx) Emissions
Rule 2012	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions

REGULATION XXX - TITLE V PERMITS

Rule 3002	Requirements

CALIFORNIA HEALTH AND SAFETY CODE

§41700	Prohibited Discharges

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 14

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS: This reports the monthly penalties from June 1 through June 30, 2018, and legal actions filed by the General Counsel's Office from June 1 through June 30, 2018. An Index of District Rules is attached with the penalty report.

COMMITTEE: Stationary Source, July 20, 2018, Reviewed

RECOMMENDED ACTION:
Receive and file.

Bayron T. Gilchrist
General Counsel

BTG:ew

	Civil Filings	Violations
1.	Numa Brothers Construction, Inc. Los Angeles Superior Court Case No. BC712130; Filed 6.29.18 (TRB) P63360 R. 1403 - Asbestos Emissions from Demolition/Renovation Activities	1
2.	Ben Rafiean dba Caribbean Sea Petroleum, Inc. Los Angeles Superior Court-Small Claims Case No. 18DWSC03147; Filed 6.29.18 (GV) P65704 R. 203 – Permit to Operate	1
		2 Violations

Attachments
June 2018 Penalty Report
Index of District Rules and Regulations

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office

June 2018 Settlement Penalty Report

Total Penalties	
Civil Settlements:	**$3,480,691.50**
(*Suspended Penalty amount included in Civil Settlements)	$10,000.00
Self-Reported Settlements:	**$3,500.00**
MSPAP Settlements:	**$7,400.00**
Total Cash Settlements:	**$3,491,591.50**
Total SEP Value:	**$0.00**
Fiscal Year through 6 / 2018 Cash Total:	**$14,221,617.93**
Fiscal Year through 6 / 2018 SEP Value Only Total:	**$2,120,000.00**

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Civil Settlements						
186522	AMERICAN MEAT COMPANIES	1415.1	6/15/2018	DH	P64840	$5,500.00
118379	ARROWHEAD REGIONAL MEDICAL CTR	3002	6/13/2018	NAS	P58094	$5,000.00
132068	BIMBO BAKERIES USA INC	2004(f)(1) 2012 Appen A	6/13/2018	TRB	P60274	$11,500.00
172638	C&D ZODIAC _ CYPRESS	1147 203 (a) 203 (b)	6/28/2018	NSF	P62803 P60668 P60672	$2,500.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
800030	CHEVRON PRODUCTS CO.	1173 1176(e)(1)	6/15/2018	TRB	P64615 P64616 P64618	$80,000.00
800030	CHEVRON PRODUCTS CO.	42400 2004	6/15/2018	TRB	P58236 P58237	$8,000.00
800030	CHEVRON PRODUCTS CO.	1118 3002(c)(1) 401(b)(1)(A) 41701	6/22/2018	TRB	P60971	$15,000.00
141424	HOME DEPOT USA INC	1143	6/5/2018	WBW	P60330 P60338	$2,394,862.50
24647	J. B. I. INC	3002 3003	6/20/2018	ML	P64014	$400.00
164214	KIBRIYA ENTERPRISES, INC	203 (b) 461(c)(2)(A)	6/14/2018	WBW	P63022	$400.00
800075	LA CITY, DWP SCATTERGOOD GENERATING STN	2004(f)(1) 2012(e)(2)(B) 203 (b) 3002(c)(1)	6/28/2018	NSF	P60584	$133,500.00
143723	LOVIN OVEN, LLC	203 (b)	6/13/2018	NSF	P57695	$300,000.00
185783	MC CARTHY	1113	6/5/2018	BST	P67001	$1,200.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
185400	MOTHER'S MARKET **Suspended penalty of $10,000 suspended until June 21, 2019*	1415.1	6/13/2018	BST	P64832 P64833 P64834 P64835 P64837	$60,000.00
52517	REXAM BEVERAGE CAN COMPANY	2004	6/7/2018	BST	P63720	$1,300.00
139490	RUST-OLEUM CORP	314	6/15/2018	NAS	P60310	$454,829.00
169882	SAN GABRIEL TRANSIT INC	201 203 (a)	6/26/2018	BST	P60543	$1,100.00
24240	SERVICE PLATING CO INC	203 (b)	6/8/2018	RFL	P65036	$1,600.00
144369	VERIZON WIRELESS	1470 203 (b)	6/13/2018	BST	P65567	$4,000.00

Total Civil Settlements: $3,480,691.50

Self-Reported Settlements

134931	ARCONIC GLOBAL FASTENERS & RINGS, INC.		6/27/2018	NAS		$3,500.00

Total Self-Reported Settlements: $3,500.00

MSPAP Settlements

154194	ARCO #00117- SRR, LLC	461(c)(3)(Q)	6/27/2018	GC	P70813	$200.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
143433	C & R CLEANERS	203 (a)	6/13/2018	GC	P65201	$800.00
177392	CW GOLF PARTNERS	461(c)(3)(Q)	6/22/2018	GC	P71060	$200.00
168989	H & E EQUIPMENT SERVICES	461(c)(3)(Q)	6/22/2018	TF	P71022	$200.00
151731	HILALIAN CORP	461(c)(3)(Q)	6/22/2018	TF	P70810	$200.00
88327	JIFFY LUBE	461(c)(3)(Q)	6/7/2018	TF	P70658	$200.00
146857	KAM'S AUTOMOTIVE INC	201 203(a)	6/7/2018	GC	P64012	$800.00
27266	LA CO., DEPT PARKS & RECREATION	203(b) 461 (e) (2)	6/7/2018	TF	P60542	$800.00
179116	OS OIL, INC.	461(c)(3)(Q)	6/7/2018	TF	P70677	$200.00
159758	PETRO BRASS	461	6/22/2018	TF	P64995	$400.00
127841	THE TEECOR GROUP, INC.	1403	6/22/2018	TF	P63083	$3,400.00

Total MSPAP Settlements: $7,400.00

DISTRICT'S RULES AND REGULATIONS INDEX
FOR JUNE 2018 PENALTY REPORT

REGULATION II - PERMITS

Rule 201	Permit to Construct
Rule 203	Permit to Operate

REGULATION III - FEES

Rule 314	Fees for Architectural Coatings

REGULATION IV - PROHIBITIONS

Rule 401	Visible Emissions
Rule 461	Gasoline Transfer and Dispensing

REGULATION XI - SOURCE SPECIFIC STANDARDS

Rule 1113	Architectural Coatings
Rule 1118	Emissions From Refinery Flares
Rule 1143	Consumer Paint Thinners & Multi-Purpose Solvents
Rule 1147	NOx Reductions From Miscellaneous Sources
Rule 1173	Fugitive Emissions of Volatile Organic Compounds
Rule 1176	Sumps and Wastewater Separators

REGULATION XIV - TOXICS

Rule 1403	Asbestos Emissions from Demolition/Renovation Activities
Rule 1415.1	Reduction of Refrigerant Emissions from Stationary Refrigeration Systems.
Rule 1470	Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

REGULATION XX REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004	Requirements
Rule 2012	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_X) Emissions

REGULATION XXX TITLE V PERMITS

Rule 3002	Requirements
Rule 3003	Applications

CALIFORNIA HEALTH AND SAFETY CODE

41701	Violation of General Limitations
42400	Penalties

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 15

REPORT: Lead Agency Projects and Environmental Documents Received By SCAQMD

SYNOPSIS: This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between June 1, 2018 and July 31, 2018, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: The Mobile Source Committee, on July 20, 2018, reviewed the June 1 – June 30, 2018 portion of the report; while the July 1 – July 31, 2018 portion has had no committee review.

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PF:SN:MK:DG:LW

CEQA Document Receipt and Review Logs (Attachments A and B) – Each month, the SCAQMD receives numerous CEQA documents from other public agencies on projects that could adversely affect air quality. A listing of all documents received and reviewed during the reporting period June 1, 2018 through July 31, 2018 is included in Attachment A (A-1 and A-2). A list of active projects from previous reporting periods for which SCAQMD staff is continuing to evaluate or has prepared comments is included in Attachment B (B-1 and B-2). A total of 178 CEQA documents were received during this reporting period and 55 comment letters were sent. Notable projects in this report are the Mount Vernon Avenue Bridge Project and the World Logistics Center.

The Intergovernmental Review function, which consists of reviewing and commenting on the adequacy of the air quality analysis in CEQA documents prepared by other lead agencies, is consistent with the Board's 1997 Environmental Justice Guiding Principles and Environmental Justice Initiative #4. As required by the Environmental Justice

Program Enhancements for FY 2002-03 approved by the Board in October 2002, each of the attachments notes those proposed projects where the SCAQMD has been contacted regarding potential air quality-related environmental justice concerns. The SCAQMD has established an internal central contact to receive information on projects with potential air quality-related environmental justice concerns. The public may contact the SCAQMD about projects of concern by the following means: in writing via fax, email, or standard letters; through telephone communication; as part of oral comments at SCAQMD meetings or other meetings where SCAQMD staff is present; or by submitting newspaper articles. The attachments also identify for each project the dates of the public comment period and the public hearing date, if applicable, as reported at the time the CEQA document is received by the SCAQMD. Interested parties should rely on the lead agencies themselves for definitive information regarding public comment periods and hearings as these dates are occasionally modified by the lead agency.

At the January 6, 2006 Board meeting, the Board approved the Workplan for the Chairman's Clean Port Initiatives. One action item of the Chairman's Initiatives was to prepare a monthly report describing CEQA documents for projects related to goods movement and to make full use of the process to ensure the air quality impacts of such projects are thoroughly mitigated. In response to describing goods movement, CEQA documents (Attachments A and B) are organized to group projects of interest into the following categories: goods movement projects; schools; landfills and wastewater projects; airports; general land use projects, etc. In response to the mitigation component, guidance information on mitigation measures were compiled into a series of tables relative to: off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases. These mitigation measure tables are on the CEQA webpages portion of the SCAQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies. Staff will continue compiling tables of mitigation measures for other emission sources, including airport ground support equipment and other sources.

As resources permit, staff focuses on reviewing and preparing comments for projects: where the SCAQMD is a responsible agency; that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement, etc.); that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); where environmental justice concerns have been raised; and those projects for which a lead or responsible agency has specifically requested SCAQMD review. If staff provided written comments to the lead agency as noted in the column "Comment Status," there is a link to the "SCAQMD Letter" under the Project Description. In addition, if staff testified at a hearing for the proposed project, a notation is provided under the "Comment Status." If there is no notation, then staff did not provide testimony at a hearing for the proposed project.

During the period June 1, 2018 through July 31, 2018, the SCAQMD received 178 CEQA documents. Of the total of 217 documents* listed in Attachments A and B:

- 55 comment letters were sent;
- 68 documents were reviewed, but no comments were made;
- 56 documents are currently under review;
- 26 documents did not require comments (e.g., public notices);
- 0 documents were not reviewed; and
- 12 documents were screened without additional review.

* These statistics are from June 1, 2018 to July 31, 2018 and may not include the most recent "Comment Status" updates in Attachments A and B.

Copies of all comment letters sent to lead agencies can be found on the SCAQMD's CEQA webpage at the following internet address: http://www.aqmd.gov/home/regulations/ceqa/commenting-agency.

SCAQMD Lead Agency Projects (Attachment C) – Pursuant to CEQA, the SCAQMD periodically acts as lead agency for stationary source permit projects. Under CEQA, the lead agency is responsible for determining the type of CEQA document to be prepared if the proposal is considered to be a "project" as defined by CEQA. For example, an Environmental Impact Report (EIR) is prepared when the SCAQMD, as lead agency, finds substantial evidence that the proposed project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if the SCAQMD determines that the proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are written statements describing the reasons why proposed projects will not have a significant adverse effect on the environment and, therefore, do not require the preparation of an EIR.

Attachment C (C-1 and C-2) to this report summarizes the active projects for which the SCAQMD is lead agency and is currently preparing or has prepared environmental documentation. As noted in Attachment C, the SCAQMD continued working on the CEQA documents for four active projects during June and July.

Attachments

A. Incoming CEQA Documents Log
B. Ongoing Active Projects for Which SCAQMD Has or Will Conduct a CEQA Review
C. Active SCAQMD Lead Agency Projects

ATTACHMENT A-1*
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Goods Movement **LAC180605-03** Harbor Performance Enhancement Center Project	The proposed project consists of construction of all-wheeled yard for peel-off and push-from marine terminals at the Port of Los Angeles and Port of Long Beach. The project is located at 300 South Ferry Street and 750 Eldridge Street on the southeast corner of Ferry Street and Vincent Thomas Bridge. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopharborperformance-061218.pdf Comment Period: 5/31/2018 - 6/29/2018 Public Hearing: 6/18/2018	Notice of Preparation	City of Los Angeles Harbor Department	SCAQMD staff commented on 6/12/2018
Goods Movement **LAC180608-01** Berths 238-239 [PBF Energy] Marine Oil Terminal Wharf Improvements Project	The proposed project consists of demolition of existing platforms, and construction of marine platform, mooring and breasting dolphins, marine oil terminal platform, two new breasting dolphins, and four new upland mooring dolphins. The project will also include installation of tenant topside improvements on 20.54 acres. The project is located at 799 South Seaside on the southwest corner of Miner Street and South Crescent Avenue, and at 401 Ferry Street on the southwest corner of Ferry Street and Terminal Way in the Port of Los Angeles. Reference LAC180306-04 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Los Angeles Harbor Department	Document reviewed - No comments sent
Goods Movement **LAC180612-18** Berths 226-236 [Everport] Container Terminal Improvements Project	The proposed project consists of dredging and disposal of 38,000 cubic yards of sediment, structural improvements to stabilize the wharf, raising of up to five existing cranes, installation of five new cranes, construction of vessel servicing infrastructure with five maritime power vaults, and development of a 23-acre terminal backlands on 229 acres. The project is located on Terminal Island at Berths 226-236, on the west side of Terminal Island along the Main Channel and near the Main Channel Turning Basin in the Port of Los Angeles. Reference LAC171003-06, LAC170922-02, LAC170421-03 and LAC141231-05 Comment Period: N/A Public Hearing: 6/21/2018	Notice of Public Hearing	City of Los Angeles Harbor Department	Document does not require comments
Warehouse & Distribution Centers **LAC180605-02** Goodman Logistics Center	The proposed project consists of demolition of 1,036,371 square feet of existing buildings and construction of two warehouses totaling 1,235,340 square feet on 55.86 acres. The project is located at 10150 Lower Azusa Road on the southeast corner of Lower Azusa Road and Shirley Avenue. Comment Period: N/A Public Hearing: 6/14/2018	Addendum to Final Environmental Impact Report	City of El Monte	Document reviewed - No comments sent

**Sorted by Land Use Type (in order of land uses most commonly associated with air quality impacts), followed by County, then date received.*

- Project has potential environmental justice concerns due to the nature and/or location of the project.

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers **LAC180612-15** Goodman Logistics Center	The proposed project consists of demolition of 1,036,371 square feet of existing buildings and construction of two warehouses totaling 1,235,340 square feet on 55.86 acres. The project is located at 10150 Lower Azusa Road on the southeast corner of Lower Azusa Road and Shirley Avenue. Reference LAC180605-02 Comment Period: N/A Public Hearing: 6/14/2018	Notice of Public Hearing	City of El Monte	Document does not require comments
Warehouse & Distribution Centers **LAC180614-01** Telegraph Road and Santa Fe Springs Road Industrial Park	The proposed project consists of construction of four warehouses totaling 318,121 square feet on 17.9 acres. The project is located at 10255 Bloomfield Avenue, 10255 Santa Fe Springs Road, and 12405 Telegraph Road on the northwest corner of Santa Fe Springs Road and Telegraph Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndtelegraphroad-061518.pdf Comment Period: 6/11/2018 - 7/2/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Santa Fe Springs	SCAQMD staff commented on 6/15/2018
Warehouse & Distribution Centers **RVC180605-14** Guthrie Industrial Warehouse (Planning Cases P17-0506 (DR), P17-0507 (GE), P17-0748 (GE), and P17-0749 (VR))	The proposed project consists of construction of a 346,290-square-foot warehouse on 22.34 acres. The project is located at 750 Marlborough Avenue and 1550 Research Park Drive near the northeast corner of Marlborough Avenue and Northgate Street. Reference RVC180509-04, RVC180502-01, RVC180208-01 and RVC180126-02 Comment Period: N/A Public Hearing: 6/19/2018	Notice of Public Hearing	City of Riverside	Document does not require comments
Warehouse & Distribution Centers **RVC180613-02** PP2018-0103	The proposed project consists of construction of a 17,000-square-foot manufacturing and storage building on 1.09 acres. The project is located near the northwest corner of Veile Avenue and West 4th Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/sppp20180103-061418.pdf Comment Period: 6/12/2018 - 6/26/2018 Public Hearing: N/A	Site Plan	City of Beaumont	SCAQMD staff commented on 6/14/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers **RVC180621-04** Perris Circle Industrial Building 3 Project - Development Review (DPR) 17-00006	The proposed project consists of construction of a 210,900-square-foot warehouse on 9.9 acres. The project is located on the northeast corner of Redlands Avenue and Nance Street. Comment Period: 6/21/2018 - 7/20/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Perris	Document reviewed - No comments sent
Warehouse & Distribution Centers **RVC180626-03** Banning Distribution Center (GPA 17-2501, ZC 17-3501)	The proposed project consists of construction of a 1,000,000-square-foot warehouse on 63.9 acres. The project is located near the northeast corner of East Lincoln Street and South Hathaway Street. Reference RVC180123-01 Comment Period: 6/26/2018 - 8/9/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Banning	Under review, may submit written comments
Warehouse & Distribution Centers **SBC180619-01** Redlands Commerce Center (P201700142/CUP)	The proposed project consists of construction of a 190,086-square-foot warehouse on 8.45 acres. The project is located near the northwest corner of Alabama Street and San Bernardino Avenue in the City of Redlands. Reference SBC180410-10 and SBC140722-03 Comment Period: N/A Public Hearing: N/A	Response to Comments	County of San Bernardino	Document reviewed - No comments sent
Warehouse & Distribution Centers **SBC180622-06** Seefried Valley and Catawba Warehouse Project	The proposed project consists of construction of a 376,910-square-foot warehouse on 17.6 acres. The project is located on the southwest corner of Valley Boulevard and Catawba Avenue. Reference SBC180404-02 Comment Period: 6/22/2018 - 8/6/2018 Public Hearing: 7/17/2018	Draft Environmental Impact Report	City of Fontana	Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Airports **LAC180628-05** Los Angeles International Airport (LAX) United Airlines Aircraft Maintenance and Ground Support Equipment Project	The proposed project consists of demolition of existing structures and construction of a 411,000-square-foot aircraft maintenance and ground support equipment facility on 35 acres. The project is located at 6000-6016 and 6020-6024 Avion Drive near the southwest corner of Airport Boulevard and West Century Boulevard. Reference LAC171207-04 Comment Period: 6/28/2018 - 8/13/2018 Public Hearing: 7/31/2018	Draft Environmental Impact Report	Los Angeles World Airports	Under review, may submit written comments
Industrial and Commercial **LAC180608-04** Toyota Logistics Services Improvement Project	The proposed project consists of demolition of 223,200 square feet of existing process facilities, and construction of 180,972 square feet of facilities including a 7,462-square-foot fuel island with 13 gasoline pumps and a 13,600-square-foot hydrogen fuel cell power plant on 130 acres. The project is located on the southwest corner of Pier B Street and Edison Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndtoyotalogistics-061218.pdf Comment Period: 6/7/2018 - 7/10/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	Port of Long Beach	SCAQMD staff commented on 6/12/2018
Industrial and Commercial **LAC180614-04** Trident Center Modernization Project	The proposed project consists of construction of 115,000 square feet of office space and 5,000 square feet of restaurant uses on 3.6 acres. The project is located at 11355 and 11377 West Olympic Boulevard on the northwest corner of Corinth Avenue and Olympic Boulevard in the community of West Los Angeles. Reference LAC171222-07 and LAC170201-09 Comment Period: N/A Public Hearing: N/A	Final Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
Industrial and Commercial **LAC180619-02** 13100 Brooks Drive Digital Billboard (DA 18-16)	The proposed project consists of construction of a 67.5-foot digital billboard with associated infrastructure on 1.38 acres. The project is located at 13100 Brooks Drive on the southeast corner of Brooks Drive and Rivergrade Road. Comment Period: 6/18/2018 - 7/18/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Baldwin Park	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Industrial and Commercial **ORC180622-01** House Foods Expansion Project	The proposed project consists of construction of a 36,763-square-foot industrial building on 10.4 acres. The project is located at 7351 and 7421 Orangewood Avenue on the northwest corner of Western Avenue and Orangewood Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndhousefoods-070618.pdf Comment Period: 6/22/2018 - 7/12/2018 Public Hearing: 7/19/2018	Mitigated Negative Declaration	City of Garden Grove	SCAQMD staff commented on 7/6/2018
Industrial and Commercial **RVC180605-06** Garnet Properties Cannabis Facility	The proposed project consists of construction of a 63,650-square-foot commercial building on 4.73 acres. The project is located on the northwest corner of Garnet Avenue and North Indian Canyon Drive. Comment Period: 6/4/2018 - 6/25/2018 Public Hearing: 7/11/2018	Mitigated Negative Declaration	City of Palm Springs	Document reviewed - No comments sent
Industrial and Commercial **RVC180613-03** Pilot Flying J Travel Center Project	The proposed project consists of construction of a 15,220-square-foot truck travel center on 11.95 acres. The project is located on the northwest corner of Riverside Drive and Etiwanda Avenue. Reference RVC180320-03, RVC170620-02, RVC170321-03, RVC170222-02 and RVC161101-23 Comment Period: N/A Public Hearing: N/A	Technical Data	City of Jurupa Valley	Document reviewed - No comments sent
Industrial and Commercial **RVC180615-02** Pilot Flying J Travel Center Project	The proposed project consists of construction of a 15,220-square-foot truck travel center on 11.95 acres. The project is located on the northwest corner of Riverside Drive and Etiwanda Avenue. Reference RVC180613-03, RVC180320-03, RVC170620-02, RVC170321-03, RVC170222-02 and RVC161101-23 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirpilotflyingjtravel-072018.pdf Comment Period: 6/7/2018 - 7/23/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Jurupa Valley	SCAQMD staff commented on 7/20/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **LAC180612-09** Glendale 2018 Wastewater Change Petition	The proposed project consists of construction of three recycled water distribution pipelines, pump stations, and a pipeline connection to City of Pasadena's recycled water distribution system. The project is located within the community of Altadena, and the cities of Glendale, Pasadena, San Marino, Los Angeles, and La Canada-Flintridge. Comment Period: 6/7/2018 - 7/6/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Glendale	Document reviewed - No comments sent
Waste and Water-related **LAC180612-19** Former Specific Plating Project	The proposed project consists of development of actions to clean up elevated levels of tetrachloroethylene, metals, and volatile organic compounds on site. The project is located at 1350, 1362, and 1368 Eastern Avenue on the northeast corner of South Eastern Avenue and Triggs Street in the City of Commerce. Comment Period: N/A Public Hearing: 6/18/2018	Community Notice	Department of Toxic Substance Control	Document reviewed - No comments sent
Waste and Water-related **LAC180622-03** Former Aerodynamic Plating Company, Inc.	The proposed project consists of development of cleanup plan to reduce volatile organic compounds in soil and groundwater. The project is located at 13629 South St. Andrews Place on the southwest corner of St. Andrews Place and West 135th Street in the City of Gardena. Comment Period: N/A Public Hearing: N/A	Response to Comments	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **LAC180622-04** So Cal Ship Services Permit Renewal	The proposed project consists of pavement of a one-acre parking lot, installation of pedestal crane, utilities, fences, lighting, and replacement of utility cover on four acres. The project is located at 971 South Seaside Avenue near the southwest corner of South Seaside Avenue and Wharf Street. Comment Period: 6/25/2018 - 7/24/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	Port of Los Angeles	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **LAC180626-07** Former YRC Wilmington	The proposed project consists of development of remedial actions to clean up petroleum contaminated soil with land fill gas vapor intrusion protection system, establish land use covenant, and restrict groundwater use on 4.7 acres. The project is located at 1531 Blinn Avenue on the northwest corner of North Blinn Avenue and East Sandison Street in the community of Wilmington. Reference LAC180529-08 Comment Period: N/A Public Hearing: N/A	Response to Comments	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **LAC180627-03** Agritec International, LTD., DBA Cleantech Environmental, Inc.	The proposed project consists of treatment of used oil filters in oil baler unit, reduce storage tank capacities from 280,000 to 231,000 gallons, addition of two 20 cubic yard bins, removal of one 10 to 15 cubic yard bin, construction of new sump, and additional administrative changes. The project is located at 5820 Martin Road on the southeast corner of East 1st Street and Martin Road in the City of Irwindale. Comment Period: 7/9/2018 - 8/24/2018 Public Hearing: N/A	Permit Modification	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **ORC180605-16** Doheny Ocean Desalination Project	This document includes exhibits that were not included in the Draft Environmental Impact Report. It also extends the public review period from July 23, 2018 to August 6, 2018 for the proposed project. The proposed project consists of construction of ocean water desalination facility with up to 15 million gallons per day (MGD) of potable drinking water. The project would also include construction of subsurface water intake system, ocean water conveyance pipeline, concentrate (brine) disposal system, product water storage tank and distribution system, and offsite electrical transmission facilities. The project is located on the northwest corner of Camino Capistrano and Coast Highway in the City of Dana Point. Reference ORC180523-02, ORC171118-06 and ORC160315-01 Comment Period: 5/23/2018 - 8/6/2018 Public Hearing: 6/26/2018	Amended Draft Environmental Impact Report	South Coast Water District	Document reviewed - No comments sent
Waste and Water-related **ORC180606-01** Biosolids Master Plan (Project No. PS15-01)	The proposed project consists of improvements to 18 biosolid handling digesters and supporting facilities. The project is located at 22212 Brookhurst Street on the southeast corner of Bushard Street and Brookhurst Street in the City of Huntington Beach. Reference ORC180227-03 and ORC170718-05 Comment Period: N/A Public Hearing: 6/27/2018	Final Program Environmental Impact Report	Orange County Sanitation District	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **ORC180608-08** North Basin Remedial Investigation Additional Monitoring Well Installation Project	The proposed project consists of construction of eight monitoring wells of 10 inches in diameter and up to 450 feet in depth at five locations within the cities of Anaheim and Fullerton. Reference ORC180420-05 Comment Period: N/A Public Hearing: N/A	Response to Comments	Orange County Water District	Document reviewed - No comments sent
Waste and Water-related **ORC180612-17** Chemical Dry-Cleaning Removal Action Workplan for Duckett Realty	The proposed project consists of remedial actions to clean up elevated levels of tetrachloroethene in soil. The project is located at 2811 and 2811 1/2 East Lincoln Avenue near the northeast corner of South Rio Vista Street and Lincoln Avenue in the City of Anaheim. Comment Period: 6/11/2018 - 7/10/2018 Public Hearing: N/A	Draft Removal Action Workplan	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **ORC180626-01** Smith Basin Improvement Project	The proposed project consists of grading, repair, and other structural improvements to Smith Basin to increase the geotechnical stability of embankment slopes. The project is located near the northwest corner of Hewes Street and Villa Park Road in the City of Orange. Comment Period: 6/26/2018 - 7/26/2018 Public Hearing: N/A	Notice of Preparation	Orange County Water District	Under review, may submit written comments
Waste and Water-related **ORC180626-06** Cherry Aerospace, 1224 E. Warner Ave., Santa Ana	The proposed project consists of development of remedial actions to reduce volatile organic compounds and 1, 4-dioxane in groundwater and soil on 15.5 acres. The project is located on the southwest corner of Beeson Lane and East Warner Avenue in the City of Santa Ana. Reference ORC180515-06 and LAC150507-09 Comment Period: N/A Public Hearing: N/A	Response to Comments	Department of Toxic Substances Control	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **RVC180601-04** Horsethief Canyon Water Reclamation Facility Upgrades and Expansion Project	The proposed project consists of construction of wastewater treatment process train. The project would also include modifications to existing headworks, new raw sewage diversion box, new dewatering system, new truck loading facility, two new pond pump stations, and new biofilter to increase the total treatment capacity from 0.5 to 0.8 million gallons per day annual average flow. The project is located at 13200 Shotgun Trail near the northeast corner of Horsethief Canyon Road and Shotgun Trail. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndhorsethiefcanyon-061218.pdf Comment Period: 6/1/2018 - 7/2/2018 Public Hearing: 8/23/2018	Notice of Intent to Adopt a Mitigated Negative Declaration	Elsinore Valley Municipal Water District	SCAQMD staff commented on 6/12/2018
Waste and Water-related **RVC180608-02** San Jacinto Valley Water Banking - Enhanced Recharge and Recovery Program	The proposed project consists of construction of recharge and treatment facilities, extraction and monitoring wells, transmission and water collector pipelines, and a groundwater water bank with storage capacity of up to 90,000 acre feet on 85 acres. The project is located near the northwest corner of Ramona Expressway and Highway 74 within the cities of Hemet and San Jacinto. Reference RVC180403-14 and LAC150707-06 Comment Period: N/A Public Hearing: N/A	Final Environmental Impact Report	Eastern Municipal Water District	Document reviewed - No comments sent
Waste and Water-related **RVC180626-04** Edom Hill Compost Facility and Truck Climbing Lane	The proposed project consists of construction of waste composting facility that would accept up to 500 tons of food and green waste, and up to 25,000 gallons of grease trap liquid per day on 20 acres. The project is located at 69780 Edom Hill Road near the northeast corner of Varner Road and Edom Hill Road. Comment Period: 6/25/2018 - 7/24/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Cathedral City	Under review, may submit written comments
Waste and Water-related **RVC180628-04** Cactus II Feeder Transmission Pipeline	The proposed project consists of construction of a transmission pipelines of 30 to 40 inches in diameter and five miles in length. The project is located on the northeast corner of Cactus Avenue and Heacock Street in the City of Moreno Valley. Comment Period: 6/28/2018 - 7/30/2018 Public Hearing: 9/5/2018	Notice of Intent to Adopt a Mitigated Negative Declaration	Eastern Municipal Water District	Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.
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ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Utilities **RVC180606-02** Circle City Substation and Mira Loma-Jefferson 66 kV Subtransmission Line Project	The proposed project consists of construction of a 66/12 kilovolt (kV) substation, six underground 12 kV distribution getaways, four 66 kV subtransmission source lines, and a 10.9-mile 66 kV subtransmission line on 19.5 acres. The project would also relocate 1.9 miles of 33 kV distribution line and install telecommunication facilities. The project is located on the southwest corner of Magnolia Avenue and East 6th Street in the City of Corona, and would also traverse through the cities of Eastvale, Norco, Chino, and Ontario in the counties of Riverside and San Bernardino. Reference RVCSBC160204-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deircirclecitysubstation-061218.pdf Comment Period: 6/4/2018 - 7/20/2018 Public Hearing: 6/27/2018	Draft Environmental Impact Report	California Public Utilities Commission	SCAQMD staff commented on 6/12/2018
Utilities **RVC180607-01** Circle City Substation and Mira Loma-Jefferson 66 kV Subtransmission Line Project	The proposed project consists of construction of a 66/12 kilovolt (kV) substation, six underground 12 kV distribution getaways, four 66 kV subtransmission source lines, and a 10.9-mile 66 kV subtransmission line. The project would also relocate 1.9 miles of 33 kV distribution line and install telecommunication facilities. The project is located on the southwest corner of Magnolia Avenue and East 6th Street in the City of Corona, and would also traverse through the cities of Eastvale, Norco, Chino, and Ontario in the counties of Riverside and San Bernardino. Reference RVC180606-02 and RVCSBC160204-01 Comment Period: 6/4/2018 - 7/20/2018 Public Hearing: 6/27/2018	Technical Data	California Public Utilities Commission	Document reviewed - No comments sent
Transportation **ORC180612-04** State Route 133 Improvement Project	The proposed project consists of safety improvements to State Route (SR) 133 from south of El Toro Road to SR-73 between Post Mile [PM] 3.1 to PM R4.1. The project would also include drainage improvements, widening of shoulders, addition of bike lane, and underground overhead utilities. The project traverses through the City of Laguna Beach. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndstateroute133-061318.pdf Comment Period: 6/11/2018 - 7/10/2018 Public Hearing: 6/27/2018	Mitigated Negative Declaration	California Department of Transportation	SCAQMD staff commented on 6/13/2018
Transportation **ORC180621-02** Craig Park Bike Facility Project	The proposed project consists of construction of bike trails ranging from 215 feet to 3,774 feet in length on 9.7 acres. The project would also include construction of a storm water catch basin and filtration system. The project is located near the northwest corner of Associated Road and East Bastanchury Road in the City of Fullerton. Comment Period: 6/13/2018 - 7/13/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	County of Orange	Document reviewed - No comments sent

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Transportation **SBC180605-07** Mount Vernon Avenue Bridge Project	The proposed project consists of replacement of bridge over Burlington Northern Santa Fe rail yard. The project is located near the southwest corner of West 5th Street and H Street in the City of San Bernardino. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deamountvernon-062918.pdf Comment Period: 5/29/2018 - 6/29/2018 Public Hearing: 6/19/2018	Supplemental Environmental Assessment	California Department of Transportation	SCAQMD staff commented on 6/29/2018
Transportation **SBC180605-09** Victoria Avenue Roadway Improvements Project	The proposed project consists of improvements to existing roadways and drainage infrastructure on Victoria Avenue between Highland Avenue and 3rd Street. The project would include street pavement, road widening, construction of handicap ramps and landscape median, installation of buried conduit, and regrading of 1,400 lineal feet of drainage channel. The project is located near the southeast corner of Victoria Avenue and Highland Avenue. Comment Period: 6/1/2018 - 7/2/2018 Public Hearing: 7/17/2018	Mitigated Negative Declaration	City of Highland	Document reviewed - No comments sent
Transportation **SBC180608-06** Victoria Avenue Roadway Improvements Project	This document includes correction to typographical error in public comment period from June 5, 2017 to July 2, 2018 for the proposed project. The proposed project consists of improvements to existing roadways and drainage infrastructure on Victoria Avenue between Highland Avenue and 3rd Street. The project would include street pavement, road widening, construction of handicap ramps and landscape median, installation of buried conduit, and regrading of 1,400 lineal feet of drainage channel. The project is located near the southeast corner of Victoria Avenue and Highland Avenue. Reference SBC180605-09 Comment Period: 6/1/2018 - 7/2/2018 Public Hearing: 7/17/2018	Amended Notice of Intent to Adopt a Mitigated Negative Declaration	City of Highland	Document does not require comments
Institutional (schools, government, etc.) **LAC180607-02** Los Angeles County Consolidated Correctional Treatment Facility Project (Men's Central Jail Replacement Project)	The proposed project consists of demolition of existing jail facility and construction of a 2.4 million-square-foot new facility with 3,885 beds on 17.7 acres. The project will also include construction of a parking structure with either 1,500 spaces under Option One or 3,000 spaces under Option Two. The project is located on the northeast corner of North Vignes Street and Bauchet Street in the community of Central City North. Reference LAC171019-02 and LAC150618-14 Comment Period: N/A Public Hearing: N/A	Response to Comments	County of Los Angeles	Document reviewed - No comments sent

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Institutional (schools, government, etc.) **ORC180612-07** Calvary Church Master Plan	The proposed project consists of demolition of six buildings totaling 32,040 square feet, and construction of three buildings totaling 86,125 square feet on 10.84 acres. The project is located at 1010 North Tustin Avenue near the northwest corner of North Tustin Avenue and East Fruit Street. Comment Period: 6/8/2018 - 6/27/2018 Public Hearing: 7/23/2018	Mitigated Negative Declaration	City of Santa Ana	Document reviewed - No comments sent
Institutional (schools, government, etc.) **RVC180621-05** North District Development Plan	The proposed project consists of construction of student housing facilities with a total of 6,000 beds on 55 acres. The project is located at 900 University Avenue near the southwest corner of Aberdeen Drive and North Campus Drive in the City of Riverside. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopnorthdistrict-072018.pdf Comment Period: 6/19/2018 - 7/20/2018 Public Hearing: 7/3/2018	Notice of Preparation	University of California	SCAQMD staff commented on 7/20/2018
Retail **LAC180613-01** Monrovia Towneplace Suites Project	The proposed project consists of construction of a 68,000-square-foot hotel with 109 rooms on 1.71 acres. The project is located at 102-140 West Huntington Drive on the southwest corner of South Myrtle Avenue and Huntington Drive. Comment Period: 6/12/2018 - 7/11/2018 Public Hearing: 7/11/2018	Mitigated Negative Declaration	City of Monrovia	Document reviewed - No comments sent
Retail **ORC180614-02** Imperial Highway Commercial Center	The proposed project consists of construction of a 50,744-square-foot hotel with 91 rooms, two restaurants totaling 4,896 square feet, and a 4,800-square-foot office building on 4.24 acres. The project is located at 701 East Imperial Highway near the northeast corner of South Leslie Street and Imperial Highway. Comment Period: 6/4/2018 - 7/9/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of La Habra	Document reviewed - No comments sent

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Retail **ORC180627-02** Anaheim Hilton Garden Inn and Home2 Suites Hotel (Development Project No. 2016-00114)	The proposed project consists of demolition of a hotel with 108 rooms, and construction of a hotel with 223 rooms and subterranean parking on 2.5 acres. The project is located at 1441 South Manchester Avenue near the southeast corner of South Harbor Boulevard and West Manchester Avenue. Comment Period: 5/24/2018 - 6/12/2018 Public Hearing: 6/25/2018	Mitigated Negative Declaration	City of Anaheim	Document reviewed - No comments sent
Retail **RVC180605-17** McCall and Sun City Boulevard Jack in the Box (Plot Plan No. 2017-217)	The proposed project consists of construction of a 2,046-square-foot restaurant on 0.58 acres. The project is located at 26670 McCall Boulevard on the northwest corner of McCall Boulevard and Sun City Boulevard. Comment Period: N/A Public Hearing: 6/13/2018	Notice of Public Hearing	City of Menifee	Document does not require comments
Retail **RVC180612-03** Planning Cases P18-0296 (GP), P18-0297 (RZ), P18-0298 (CUP), P18-0300 (CUP), P18-0301 (CUP), P18-0302 (CUP), P18-0303 (CUP), and P18-0299 (DR)	The proposed project consists of construction of a hotel with 84 rooms, 17,583 square feet of retail uses, and a gas station with eight fueling pumps on 6.3 acres. The project is located at 9568-9608 Indiana Avenue on the southwest corner of Indiana Avenue and Van Buren Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spp180296gp-061418.pdf Comment Period: 6/8/2018 - 6/29/2018 Public Hearing: N/A	Site Plan	City of Riverside	SCAQMD staff commented on 6/14/2018
Retail **RVC180615-03** Lewis Retail and Civic Center (PLN17-20015) and Al's Corner (PLN17-20029)	The proposed project consists of construction of a gasoline station with 24 fueling pumps, 19,500 square feet of retail uses, a 10,000-square-foot medical office, a 74,800-square-foot hotel with 130 rooms, and 65,000 square feet of civic uses on 23 acres. The project would also include installation of a 36-inch storm drain. The project is located at 7270 Hamner Avenue on the southeast corner of Hamner Avenue and Mississippi Drive. Reference RVC180406-03 and RVC180126-03 Comment Period: N/A Public Hearing: 6/27/2018	Final Environmental Impact Report	City of Eastvale	Document reviewed - No comments sent

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail **RVC180622-05** MA17245 (TPM37483 & CUP17004)	The proposed project consists of construction of a 2,900-square-foot gas station with six fueling dispensers, a 4,500-square-foot convenience store, a 2,100-square-foot office, and a 2,500-square-foot restaurant on 1.1 acres. The project is located on the northwest corner of Pedley Road and Ben Nevis Boulevard. Reference RVC180327-02, RVC180322-02 and RVC171108-11 Comment Period: 6/22/2018 - 7/9/2018 Public Hearing: N/A	Site Plan	City of Jurupa Valley	Document reviewed - No comments sent
Retail **RVC180628-02** The Merge Retail and Light Industrial Development (Project No. PLN18-20026)	The proposed project consists of construction of eight industrial and warehouse buildings totaling 336,501 square feet, and 72,600 square feet of retail uses including a gas station and car wash on 26 acres. The project is located on the northeast corner of Archibald Avenue and Limonite Avenue. Comment Period: 6/29/2018 - 7/30/2018 Public Hearing: 7/18/2018	Notice of Preparation	City of Eastvale	Under review, may submit written comments
Retail **RVC180628-03** Costco/Vineyard II Retail Development	The proposed project consists of construction of a 150,000-square-foot warehouse, a gas station with 32 pumps, a 37,000-square-foot fitness center, and 19,500 square feet of retail uses on 26 acres. The project is located on the northeast corner of Clinton Keith Road and Antelope Road. Comment Period: 6/27/2018 - 7/26/2018 Public Hearing: 7/10/2018	Notice of Preparation	City of Murrieta	Under review, may submit written comments

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Retail **SBC180607-03** Archibald Oil - General Plan Amendment DRC2015-00683, Zoning Map Amendment DRC2015-00684, Design Review DRC2015-00682, Conditional Use Permit DRC2015-00681, Variance DRC2016-00831, and Minor Exception DRC2017-00879	The proposed project consists of construction of a 968-square-foot car wash, and reuse of a 1,728-square-foot service building and a 1,481-square-foot canopy with four fueling pumps on 1.22 acres. The project is located on the northeast corner of Archibald Avenue and Arrow Route. Reference SBC180508-04 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Rancho Cucamonga	Document reviewed - No comments sent
Retail **SBC180628-01** 7-Eleven Convenience Store and Fuel Station (CUP-17-002, DRA-17-005 and TPM-17-001)	This document includes update to Biological Resource section, extends the public review period from April 30, 2018 to May 15, 2018, and changes the public hearing date from August 1, 2018 to August 7, 2018 for the proposed project. The proposed project consists of construction of a 3,100-square-foot convenience store with 12 fueling stations on a 1.41-acre portion of 3.82 acres. The project is located on the southwest corner of Greenspot Road and Boulder Avenue. Comment Period: 6/29/2018 - 7/23/2018 Public Hearing: 8/7/2018	Recirculated Notice of Intent to Adopt a Mitigated Negative Declaration	City of Highland	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180601-03** 713 East 5th Street Project	The proposed project consists of demolition of a 14,475-square-foot building and construction of a 33,007-square-foot building with 51 residential units on 0.13 acres. The project is located near the northwest corner of Stanford Avenue and 5th Street in the community of Central City. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nop713east5thstreet-061218.pdf Comment Period: 6/1/2018 - 7/2/2018 Public Hearing: 6/13/2018	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 6/12/2018
General Land Use (residential, etc.) **LAC180601-05** Lakeland Apartments	The proposed project consists of construction of seven buildings totaling 170,082 square feet with 128 residential units on 5.13 acres. The project is located on the southwest corner of Lakeland Road and Carmenita Road. Reference LAC180403-05 and LAC180327-08 Comment Period: N/A Public Hearing: 6/14/2018	Notice of Public Hearing	City of Santa Fe Springs	Document does not require comments

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC180605-01** Norwalk Boulevard Mixed-Use Development	The proposed project consists of construction of 4,054 square feet of residential uses, a 1,128-square-foot warehouse, 401 square feet of storage uses, 1,188 square feet of office uses, and 3,355 square feet of retail uses on 0.43 acres. The project is located near the southwest corner of Norwalk Boulevard and Washington Boulevard. Comment Period: 5/30/2018 - 6/19/2018 Public Hearing: 7/9/2018	Mitigated Negative Declaration	City of Santa Fe Springs	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180605-18** ENV-2015-1159-EIR (1020 S. Figueroa Street)	The proposed project consists of demolition of existing hotel and surrounding parking lots, and construction of a mixed-use development with a 300-room hotel, 650 residential units, 80,000 square feet of restaurant, retail and commercial uses, and subterranean parking totaling 1,129,284 square feet. The project is located on the southeast corner of South Figueroa Street and West Olympic Boulevard in the community of Central City. Reference LAC170516-05, LAC170502-04, LAC160909-01 and LAC160203-02 Comment Period: N/A Public Hearing: 6/12/2018	Notice of Public Hearing	City of Los Angeles	Document does not require comments
General Land Use (residential, etc.) **LAC180605-19** Promenade 2035 (ENV-2016-3909-EIR)	This document extends the public review period from June 11, 2018 to July 26, 2018 for the proposed project. The proposed project consists of demolition of 641,164 square feet of existing buildings, and construction of 1,432 residential units, 244,000 square feet of retail and restaurant uses, 629,000 square feet of office uses, two hotels with 572 rooms, a 320,050-square-foot entertainment center with 15,000 seats, and 5.6 acres of open space on 34 acres. The project is located at on the southeast corner of Topanga Canyon Boulevard and Erwin Street in the community of Canoga Park-Winnetka-Woodland Hills-West Hills. Reference LAC180426-05 and LAC161109-01 Comment Period: 4/26/2018 - 7/26/2018 Public Hearing: N/A	Extension of Time	City of Los Angeles	Document does not require comments
General Land Use (residential, etc.) **LAC180612-06** The Brookside Project	The proposed project consists of demolition of existing buildings and parking lots, and subdivision of 25.84 acres for future development of 28 residential units. The project is located on the southeast corner of North Lemon Avenue and Meadow Pass Road. Reference LAC160520-01 Comment Period: 6/11/2018 - 7/25/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Walnut	Document reviewed - No comments sent

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC180612-12** The AVE	The proposed project consists of construction of 118 residential units, a 70,000-square-foot hotel with 120 rooms, 40,090 square feet of retail uses, and 8,910 square feet of office uses on 18.65 acres. The project is located in the southeast corner of Kanan Road and Agoura Road. Comment Period: N/A Public Hearing: 6/12/2018	Public Notice	City of Agoura Hills	Document does not require comments
General Land Use (residential, etc.) **LAC180614-03** ENV-2017-5: 1334-1356 S. Flower St.	The proposed project consists of demolition of 38,430 square feet of existing commercial uses and surface parking lots, and construction of a building with 171 residential uses and subterranean parking on 0.89 acres. The project is located near the southeast corner of Flower Street and Cameron Lane in the community of Central City. Comment Period: 6/14/2018 - 7/16/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180615-01** 433 Vermont Apartments	The document consists of request to release funding for the proposed project. The proposed project consists of demolition of existing office building and construction of a building with 72 residential units and subterranean parking on 0.5 acres. The project is located at 433 South Vermont Avenue on the southwest corner of West 4th Street and South Vermont Avenue in the community of Wilshire. Reference LAC171205-10, LAC171110-09 and LAC170505-05 Comment Period: 6/8/2018 - 6/27/2018 Public Hearing: N/A	Notice of Intent to Request Release of Funds	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180619-04** Tentative Tract Map (TTM) 72798	The proposed project consists of subdivision of 25 acres for future development of 28 residential units. The project is located at 800 Meadow Pass Road near the southeast corner of North Lemon Avenue and Meadow Pass Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spttm72798-071318.pdf Comment Period: 6/15/2018 - 7/14/2018 Public Hearing: N/A	Site Plan	City of Walnut	SCAQMD staff commented on 7/13/2018

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General Land Use (residential, etc.) **LAC180620-01** Rancho Cienega Celes King III Pool Demolition Project	The proposed project consists of demolition of existing building, and construction of community playground including installation of utilities, playground, and shade structures on 0.4 acres. The project is located at 5001 Rodeo Road on the northeast corner of Rodeo Road and West Martin Luther King Jr Boulevard in the community of West Adams-Baldwin Hills-Leimert. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopranchocienegaceles-070618.pdf Comment Period: 6/21/2018 - 7/20/2018 Public Hearing: 6/28/2018	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 7/6/2018
General Land Use (residential, etc.) **LAC180620-02** 668 S. Alameda Street Project (ENV-2016-3576-EIR)	The proposed project consists of demolition of four buildings totaling 131,350 square feet, and construction of a 577,301-square-foot building with 475 residential units and subterranean parking on 3.75 acres. The project is located on the southeast corner of South Alameda Street and Industrial Street in the community of Central City North. Reference LAC180501-08, LAC180501-07, LAC180406-01, LAC171003-15 and LAC161202-01 Comment Period: N/A Public Hearing: 7/12/2018	Notice of Public Hearing	City of Los Angeles	Document does not require comments
General Land Use (residential, etc.) **LAC180621-03** 6200 West Sunset Boulevard (ENV-2015-3603-EIR)	The proposed project consists of construction of a 243,315-square-foot building with 270 residential units on 1.24 acres. The project is located on the southwest corner of North El Centro Avenue and Sunset Boulevard in the community of Hollywood. Reference LAC180104-05 and LAC160119-01 Comment Period: N/A Public Hearing: 7/18/2018	Final Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180626-02** Tentative Parcel Map No. (TPM) 77167	The proposed project consists of subdivision of 1.12 acres for future development of two residential units. The project is located at 455 Camino de Gloria near the southwest corner of Camino de Gloria and East Calle Baja Drive. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/sptpm77167-071818.pdf Comment Period: 6/26/2018 - 7/18/2018 Public Hearing: N/A	Site Plan	City of Walnut	SCAQMD staff commented on 7/18/2018

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General Land Use (residential, etc.) **LAC180626-05** Smoky Hollow Specific Plan Update	The proposed project consists of construction of six residential units and 517,094 square feet of office, commercial, and industrial uses on 120 acres. The project is located on the northwest corner of Sepulveda Boulevard and El Segundo Boulevard. Reference LAC180309-02 and LAC170404-03 Comment Period: 6/22/2018 - 8/6/2018 Public Hearing: N/A	Notice of Availability of a Recirculated Revised Draft Environmental Impact Report	City of El Segundo	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180627-01** California Grand Village Project	The proposed project consists of construction of 253 residential units on a 4.48-acre portion of 19.36 acres. The project is located on the northeast corner of East 10th Street and North Todd Avenue. Comment Period: 6/27/2018 - 7/27/2018 Public Hearing: 7/11/2018	Notice of Preparation	City of Azusa	Under review, may submit written comments
General Land Use (residential, etc.) **LAC180628-06** 3200 E. Foothill Boulevard Mixed Use Project	The proposed project consists of demolition of 29 buildings totaling 212,397 square feet, and construction of eight buildings with 550 residential units totaling 544,906 square feet and subterranean parking on 8.53 acres. The project is located at 3200 East Foothill Boulevard on the southeast corner of East Foothill Boulevard and North Kinneloa Avenue. Reference LAC180213-04 Comment Period: N/A Public Hearing: 7/9/2018	Notice of Public Hearing	City of Pasadena	Document does not require comments
General Land Use (residential, etc.) **ORC180601-02** Design Review 18-1089, Coastal Development Permit 18-0939	The proposed project consists of demolition of a 432-square-foot residential unit on 8,372 square feet. The project is located at 1041 Marine Drive near the southeast corner of Marine Drive and Cliff Drive. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mnddesignreview181089-060518.pdf Comment Period: 5/29/2018 - 6/27/2018 Public Hearing: 6/28/2018	Mitigated Negative Declaration	City of Laguna Beach	SCAQMD staff commented on 6/5/2018

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **ORC180608-07** Downtown Commercial Core Specific Plan	The proposed project consists of construction of 887 residential units and 300,000 square feet of commercial and office uses on 220 acres. The project is located near the northeast interchange of Interstate 5 and State Route 55. Reference ORC180410-03, ORC180330-01, ORC180216-04 and ORC160802-02 Comment Period: N/A Public Hearing: 6/19/2018	Notice of Public Hearing	City of Tustin	Document does not require comments
General Land Use (residential, etc.) **ORC180612-13** Bolsa Row Specific Plan - Project Case No. 2017-06	This document changes the public hearing date from May 9, 2018 to June 27, 2018 for the proposed project. The proposed project consists of construction of a 122,207-square-foot hotel with 150 rooms, 20,000 square feet of public assembly area, 45,000 square feet of retail uses, and 205 residential units on six acres. The project is located on the southeast corner of Brookhurst Street and Bolsa Avenue. Reference ORC180427-01, ORC180207-01, ORC180109-06 and ORC170912-14 Comment Period: N/A Public Hearing: 6/27/2018	Revised Notice of Public Hearing	City of Westminster	Document does not require comments
General Land Use (residential, etc.) **ORC180619-03** Metro East Mixed-Use Overlay Zone Expansion and Elan Development Projects	The proposed project consists of construction of two buildings with a total of 603 residential units, 8,500 square feet of commercial uses, and subterranean parking on a 6.4-acre portion of 200 acres. The project is located at 1660 East First Street on the southwest corner of Mabury Street and East 1st Street. Comment Period: 6/12/2018 - 7/27/2018 Public Hearing: 7/23/2018	Draft Subsequent Environmental Impact Report	City of Santa Ana	Under review, may submit written comments
General Land Use (residential, etc.) **RVC180605-11** MA16045 (TTM37074, DA1601, & SP16001) (Rio Vista Specific Plan)	The proposed project consists of development plans and design guideline standards to allow future development of 1,363 residential units, a 12-acre park, a 13.3-acre school, and 608.6 acres of open space on 917.3 acres. The project is located on the northeast corner of Muriel Drive and Paramount Drive. Reference RVC170705-16 and RVC160422-03 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spriovista-061218.pdf Comment Period: 6/5/2018 - 6/19/2018 Public Hearing: N/A	Site Plan	City of Jurupa Valley	SCAQMD staff commented on 6/12/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **RVC180605-15** Planning Cases P17-0929 (TM), P17-0930 (VR), P17-0931 (VR) and P17-0932 (VR) - Tentative Tract Map no. 37392	The proposed project consists of subdivision of 16.79 acres for future development of eight residential units. The project is located near the southwest corner of Overlook Parkway and Via Montecito. Reference RVC180302-06 Comment Period: N/A Public Hearing: 6/28/2018	Notice of Public Hearing	City of Riverside	Document does not require comments
General Land Use (residential, etc.) **RVC180608-05** Moreno Valley Ranch Golf Course Apartments	The proposed project consists of construction of 18 buildings with 417 residential units on 21.86 acres. The project will also include 248 acres of open space. The project is located on the southeast corner of John F. Kennedy Drive and Moreno Beach Drive. Reference RVC180322-01 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Moreno Valley	Document reviewed - No comments sent
General Land Use (residential, etc.) **RVC180612-05** Vista Del Agua Specific Plan	The proposed project consists of construction of 1,640 residential units, 281,397 square feet of commercial uses, a 13.8-acre park, 12.7 acres of paseo and trail uses, and 29 acres of off-site infrastructure improvements on 304 acres. The project is located at on the southeast corner of Tyler Street and Vista Del Sur. Reference RVC150303-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirvistadelagua-061418.pdf Comment Period: 6/8/2018 - 7/23/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Coachella	SCAQMD staff commented on 6/14/2018
General Land Use (residential, etc.) **RVC180612-14** McLaughlin Village - Tentative Tract Map No. 2015-250 (TM 36937), Plot Plan No. 2015-251, and Change of Zone No. CZ 2015-252	The proposed project consists of subdivision of 14.34 acres for future development of 126 residential units. The project is located on the southeast corner of McLaughlin Road and Barnett Road. Reference RVC180404-01, RVC180313-01 and RVC180220-03 Comment Period: N/A Public Hearing: 6/20/2018	Notice of Public Hearing	City of Menifee	Document does not require comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **SBC180601-01** Special Planning Area "D" Specific Plan and Phase Three Concept Area Development Project	The proposed project consists of construction of 481 residential units, 7.1 acres of commercial and office uses, and 26.5 acres of open space on 103 acres. The project is located near the southwest corner of Redlands Boulevard and California Street. Reference SBC180406-05 and SBC180227-02 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Loma Linda	Document reviewed - No comments sent
General Land Use (residential, etc.) **SBC180605-04** GP No. 139, ZC No. 462, CUP No. 1096, and TTM No. 20162	The proposed project consists of demolition of four residential units and construction of a building with 122 residential units on 5.8 acres. The project is located on the southeast corner of Occidental Drive and Lugonia Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spgpno139-061218.pdf Comment Period: 6/5/2018 - 6/18/2018 Public Hearing: N/A	Site Plan	City of Redlands	SCAQMD staff commented on 6/12/2018
General Land Use (residential, etc.) **SBC180621-01** Conditional Use Permit (CUP 18-002), Design Review Application (DRA 18-007), and Tentative Tract Map 18-002	The proposed project consists of construction of 12 buildings with a total of 50 residential units on four acres. The project is located near the southwest of Highland Avenue and Boulder Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spcup18002-070618.pdf Comment Period: 6/21/2018 - 7/10/2018 Public Hearing: N/A	Site Plan	City of Highland	SCAQMD staff commented on 7/6/2018
Plans and Regulations **LAC180605-08** Diamond Bar General Plan Update and Climate Action Plan	The proposed project consists of updates to City General Plan land use and economic development, circulation, resource conservation, public services and facilities, public safety element, community character and placemaking, and community health and sustainability. The project would also include updates to City climate action plan for 13,039 acres. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopdiamondbargeneral-061218.pdf Comment Period: 6/7/2018 - 7/6/2018 Public Hearing: 6/21/2018	Notice of Preparation	City of Diamond Bar	SCAQMD staff commented on 6/12/2018

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Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-1
INCOMING CEQA DOCUMENTS LOG
June 01, 2018 to June 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Plans and Regulations **LAC180612-16** Diamond Bar General Plan Update and Climate Action Plan	This document includes correction to typographic error in the Notice of Preparation that was circulated for public review from June 7, 2018 to July 6, 2018 for the proposed project. The proposed project consists of updates to City General Plan land use and economic development, circulation, resource conservation, public services and facilities, public safety element, community character and placemaking, and community health and sustainability. The project would also include updates to City climate action plan for 13,039 acres. Reference LAC180605-08 Comment Period: 6/7/2018 - 7/6/2018 Public Hearing: 6/21/2018	Revised Notice of Preparation	City of Diamond Bar	Document reviewed - No comments sent
Plans and Regulations **LAC180622-02** Plaza Mexico Residences (Lynwood Transit Area Specific Plan)	The proposed project consists of construction of a building with 348 residential units and 26,417 square feet of retail uses on a 3.6-acre portion of 315 acres. The project is located at 3000 East Imperial Highway on the northwest corner of State Street and Beechwood Avenue. Reference LAC160729-01 Comment Period: 6/21/2018 - 8/6/2018 Public Hearing: N/A	Draft Supplemental Environmental Impact Report	City of Lynwood	Under review, may submit written comments
Plans and Regulations **ORC180608-03** Ball Road Basin General Plan Amendment and Zone Change	The proposed project consists of updates to City General Plan land use designation for Ball Road Basin from open space to general commercial, and zoning from transitional and industrial to general commercial for 19.5 acres. The project would also add a bike path and trail study area along edges of the Basin. The project is located on the southeast corner of Ball Road and Phoenix Club Drive. Reference ORC130214-03 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirballroadbasin-061518.pdf Comment Period: 6/7/2018 - 7/23/2018 Public Hearing: 9/5/2018	Draft Environmental Impact Report	City of Anaheim	SCAQMD staff commented on 6/15/2018
Plans and Regulations **SBC180612-10** City of Fontana General Plan Update	The proposed project consists of updates to City General Plan land use element, community and neighborhoods, housing element, health and wellness element, conservation element, public and community services element, community mobility and circulation element, infrastructure and green element, noise and safety element, sustainability and resilience element, economic development element, downtown area plan, and stewardship and implementation plan. Reference SBC160301-02 Comment Period: 6/9/2018 - 7/23/2018 Public Hearing: 6/19/2018	Notice of Availability of a Draft Environmental Impact Report	City of Fontana	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT B-1*
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers **RVC180518-05** Brodiaea Commerce Center (Plot Plan PEN17-0143, Change of Zone PEN17-0144)	The proposed project consists of construction of a 261,807-square-foot warehouse on 11.8 acres. The project is located on the northwest corner of Heacock Street and Brodiaea Avenue. Reference RVC171206-02 and RVC171115-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirbrodiaeacommerce-060518.pdf Comment Period: 5/18/2018 - 7/2/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Moreno Valley	SCAQMD staff commented on 6/5/2018
Industrial and Commercial **LAC180517-02** Canyon City Business Center	The proposed project consists of demolition of existing 13,465-square-foot nursery and construction of seven industrial buildings totaling 463,316 square feet on 23.27 acres. The project is located at 1025 North Todd Avenue on the southwest corner of West Sierra Madre Avenue and North Todd Avenue. Reference LAC180221-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deircanyoncitybusiness-060518.pdf Comment Period: 5/17/2018 - 7/2/2018 Public Hearing: 7/25/2018	Draft Environmental Impact Report	City of Azusa	SCAQMD staff commented on 6/5/2018
Industrial and Commercial **RVC180515-05** Rubidoux Commercial Development Project (MA15146)	The proposed project consists of construction of nine industrial buildings totaling 306,894 square feet on 26.4 acres. The project is located on the northwest corner of 20th Street and Vandell Road. Reference RVC170425-04 and RVC151113-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirrubidouxcommercial-060518.pdf Comment Period: 5/16/2018 - 6/29/2018 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Jurupa Valley	SCAQMD staff commented on 6/5/2018
Industrial and Commercial **RVC180517-01** Gilman Springs Mine (Surface Mining Permit No. 159, Revision No. 2, and Environmental Assessment No. 34079)	The proposed project consists of expansion of mining boundary from 150.4 to 204.8 acres and increase in extraction of mineral reserves from 14,842,574 to 44,000,000 tons. The project is located on the northeast corner of Gilman Springs Road and Bridge Street in the City of Moreno Valley. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopgilmansprings-060518.pdf Comment Period: 5/14/2018 - 6/14/2018 Public Hearing: N/A	Notice of Preparation	County of Riverside	SCAQMD staff commented on 6/5/2018
Industrial and Commercial **RVC180524-02** Toscana Village at Temescal Valley	The proposed project consists of construction of 15 commercial buildings totaling 194,100 square feet and a gasoline service station with 12 fueling pumps on 27 acres. The project is located on the northwest corner of Temescal Canyon Road and Indian Truck Trail in the community of Temescal Valley. Reference RVC170705-11 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirtoscanavillage-060518.pdf Comment Period: 5/25/2018 - 7/9/2018 Public Hearing: N/A	Draft Environmental Impact Report	County of Riverside	SCAQMD staff commented on 6/5/2018

Sorted by Comment Status, followed by Land Use, then County, then date received.

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B-1
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **LAC180529-08** Former YRC Wilmington	The proposed project consists of development of remedial actions to clean up petroleum contaminated soil with land fill gas vapor intrusion protection system, establish land use covenant, and restrict groundwater use on 4.7 acres. The project is located at 1531 Blinn Avenue on the northwest corner of North Blinn Avenue and East Sandison Street in the community of Wilmington. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/drawformeryrc-061218.pdf Comment Period: 5/15/2018 - 6/13/2018 Public Hearing: N/A	Revised Draft Removal Action Workplan	Department of Toxic Substances Control	SCAQMD staff commented on 6/12/2018
Waste and Water-related **ORC180515-06** Cherry Aerospace, 1224 E. Warner Ave., Santa Ana	The proposed project consists of development of remedial actions to reduce volatile organic compounds and 1, 4-dioxane in groundwater and soil on 15.5 acres. The project is located on the southwest corner of Beeson Lane and East Warner Avenue in the City of Santa Ana. Reference LAC150507-09 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/irmwpcherryaerospace-061218.pdf Comment Period: 5/14/2018 - 6/12/2018 Public Hearing: N/A	Interim Remedial Measures Work Plan	Department of Toxic Substances Control	SCAQMD staff commented on 6/12/2018
Waste and Water-related **ORC180523-02** Doheny Ocean Desalination Project	The proposed project consists of construction of ocean water desalination facility with up to 15 million gallons per day (MGD) of potable drinking water. The project would also include construction of subsurface water intake system, ocean water conveyance pipeline, concentrate (brine) disposal system, product water storage tank and distribution system, and offsite electrical transmission facilities. The project is located on the northwest corner of Camino Capistrano and Coast Highway in the City of Dana Point. Reference ORC171118-06 and ORC160315-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirdohenyocean-060518.pdf Comment Period: 5/23/2018 - 8/6/2018 Public Hearing: 6/26/2018	Draft Environmental Impact Report	South Coast Water District	SCAQMD staff commented on 6/5/2018
Waste and Water-related **RVC180529-07** Regional Water Reclamation Facility Upgrade and Expansion	The proposed project consists of upgrade and expansion of existing facility from eight million gallons per day (MGD) to 12 MGD on 56 acres. The project is located at 31315 Chaney Street near the northwest corner of Denny Drive and Reid Street in the City of Lake Elsinore. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndregionalwater-060518.pdf Comment Period: 5/29/2018 - 6/28/2018 Public Hearing: 7/26/2018	Mitigated Negative Declaration	Elsinore Valley Municipal Water District	SCAQMD staff commented on 6/5/2018

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ATTACHMENT B-1
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Utilities **RVC180516-04** Athos Renewable Energy Project (Conditional Use Permit No. 180001/Public Use Permit No. 180001)	The proposed project consists of construction of solar photovoltaic (PV) electrical generating and storage facility and a 11-mile 220 kilovolts (kV) generation tie transmission line on 3,400 acres. The project is located near the northeast corner of Interstate 10 and Rice Road in the community of Desert Center. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopathosrenewable-060518.pdf Comment Period: 5/11/2018 - 6/11/2018 Public Hearing: 6/4/2018	Notice of Preparation	County of Riverside	SCAQMD staff commented on 6/5/2018
Institutional (schools, government, etc.) **LAC180517-03** San Pedro High School Comprehensive Modernization Project	The proposed project consists of demolition of 13 buildings totaling 52,754 square feet, modernization of four buildings totaling 115,819 square feet, and construction of three buildings totaling 62,102 square feet on 22.9 acres. The project will also include a Remedial Action Workplan to remove 226 cubic yards of contaminated soil. The project is located at 1001 West 15th Street on the northeast corner of South Leland Street and West 17th Street in the community of San Pedro. Reference LAC171003-05 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirsanpedrohighschool-060518.pdf Comment Period: 5/17/2018 - 7/2/2018 Public Hearing: 5/23/2018	Notice of Availability of a Draft Environmental Impact Report	Los Angeles Unified School District	SCAQMD staff commented on 6/5/2018
Medical Facility **LAC180522-03** Symphony at San Gabriel	The proposed project consists of construction of assisted living facility with 197 residential units and subterranean parking on 3.08 acres. The project is located at 824 South Gladys Avenue near the northeast corner of South Gladys Avenue and East Grand Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndsymphony-060518.pdf Comment Period: 5/21/2018 - 6/11/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of San Gabriel	SCAQMD staff commented on 6/5/2018
General Land Use (residential, etc.) **LAC180510-01** ENV-2017-2513-MND: 945 W. 8th Street Project	The proposed project consists of construction of a 791,843-square-foot building with 781 residential units, 84,700 square feet of open space, and subterranean parking on a 1.29-acre portion of 7.7 acres. The project is located on the northwest corner of Figueroa Street and 8th Street in the community of Central City. Reference LAC171013-01 and LAC171003-18 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mnd945w8thstreet-060518.pdf Comment Period: 5/10/2018 - 6/11/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 6/5/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B-1
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC180522-06** Beverly Hilton Specific Plan Amendment	The proposed project consists of demolition of 205,926 square feet of existing building and parking, and construction of a 973,565-square-foot hotel with 522 rooms, 140 residential units, and subterranean parking on 8.94 acres. The project would also include 5.34 acres of open space. The project is located at 9876 Wilshire Boulevard on the southeast corner of Wilshire Boulevard and Merv Griffin Way. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopbeverlyhilton-060518.pdf Comment Period: 5/18/2018 - 6/18/2018 Public Hearing: 6/12/2018	Notice of Preparation	City of Beverly Hills	SCAQMD staff commented on 6/5/2018
General Land Use (residential, etc.) **LAC180522-07** 1111 Sunset (ENV-2018-177-EIR)	The proposed project consists of demolition of 114,600 square feet of existing buildings, and construction of 218,000 square feet of commercial uses including a hotel with 98 rooms, 778 residential units totaling 776,982 square feet, and 87,525 square feet of open space on 262,437 square feet. The project is located at 1111-1115 West Sunset Boulevard on the southeast corner of Sunset Boulevard and White Knoll Drive in the community of Central City North. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nop1111sunset-060518.pdf Comment Period: 5/21/2018 - 6/20/2018 Public Hearing: 5/30/2018	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 6/5/2018
General Land Use (residential, etc.) **LAC180522-08** Connect Southwest LA: TOD Specific Plan for West Athens-Westmont (Project No. 2016-000317, Plan No. 2016002080)	The proposed project consists of construction of 1,061 residential units and 1.7 million square feet of commercial and retail uses on a 473-acre portion of 658 acres. The project is located on the northwest corner of West 121st Street and Vermont Avenue within the communities of West Athens and Westmont. Reference LAC170519-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirconnectsouthwest-060518.pdf Comment Period: 5/16/2018 - 6/29/2018 Public Hearing: N/A	Draft Environmental Impact Report	County of Los Angeles	SCAQMD staff commented on 6/5/2018
General Land Use (residential, etc.) **LAC180525-02** 2143 Violet Street (ENV-2017-438-EIR)	The proposed project consists of demolition of two existing buildings totaling 6,844 square feet, and construction of 302,604 square feet of residential uses with 347 units, 187,374 square feet of office uses, 21,858 square feet of retail uses, and subterranean parking on 2.2 acres. The project is located at 2117-2147 East Violet Street and 2118-2142 East 7th Place near the southeast corner of Santa Fe Avenue and 7th Place in the community of Central City North. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nop2143violetstreet-060518.pdf Comment Period: 5/25/2018 - 6/25/2018 Public Hearing: 6/14/2018	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 6/5/2018
General Land Use (residential, etc.) **LAC180530-01** North Business Park Specific Plan	The proposed project consists of construction of 1,017 residential units and 1,631,392 square feet of retail, commercial, business park, and office uses on 128.63 acres. The project is located on the northwest corner of Lindero Canyon Road and Highway 101. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopnorthbusinesspark-060518.pdf Comment Period: 5/30/2018 - 6/29/2018 Public Hearing: 6/12/2018	Notice of Preparation	City of Westlake Village	SCAQMD staff commented on 6/5/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B-1
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **ORC180522-09** Lakeview Senior Living	The proposed project consists of construction of a 126,000-square-foot senior living facility with 250 beds on 4.99 acres. The project is located on the southeast corner of Lakeview Avenue and Mariposa Avenue. Reference ORC170505-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/dseirlakeviewseniorliving-060518.pdf Comment Period: 5/18/2018 - 6/2/2017 Public Hearing: N/A	Draft Subsequent Environmental Impact Report	City of Yorba Linda	SCAQMD staff commented on 6/5/2018
General Land Use (residential, etc.) **RVC180523-04** Ivey Palms Specific Plan (GPA01133, CZ07893, SP00392, and TR37434)	The proposed project consists of construction of 1,500 residential units, a 2.3-acre electrical substation, a 14.5-acre elementary school, 378,970 square feet of commercial and retail uses, and 33.1 acres of open space on 214.7 acres. The project is located near the southeast corner of Varner Road and Ramon Road in the community of Western Coachella Valley. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopiveypalms-060518.pdf Comment Period: 5/9/2018 - 6/22/2018 Public Hearing: 6/18/2018	Notice of Preparation	County of Riverside	SCAQMD staff commented on 6/5/2018
General Land Use (residential, etc.) **RVC180525-01** Nichols Ranch Specific Plan (Planning Application No. 2017-29 and Specific Plan No. 2018-01)	The proposed project consists of construction of 168 residential units, 14.5 acres of commercial and retail uses including a hotel with 130 rooms, 5.5 acres of drainage basin, 6.5 acres of floodway, 5.3 acres of roadways, a gas station with 16 fueling pumps, and 9.6 acres of open space on 72.5 acres. The project is located on the southwest corner of Nichols Road and El Toro Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopnicholsranch-060518.pdf Comment Period: 5/24/2018 - 6/24/2018 Public Hearing: 6/14/2018	Notice of Preparation	City of Lake Elsinore	SCAQMD staff commented on 6/5/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT C-1
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JUNE 30, 2018

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
The Phillips 66 (formerly ConocoPhillips) Los Angeles Refinery Ultra Low Sulfur Diesel project was originally proposed to comply with federal, state and SCAQMD requirements to limit the sulfur content of diesel fuels. Litigation against the CEQA document was filed. Ultimately, the California Supreme Court concluded that the SCAQMD had used an inappropriate baseline and directed the SCAQMD to prepare an EIR, even though the project has been built and has been in operation since 2006. The purpose of this CEQA document is to comply with the Supreme Court's direction to prepare an EIR.	Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery	Environmental Impact Report (EIR)	The Notice of Preparation/Initial Study (NOP/IS) was circulated for a 30-day public comment period on March 26, 2012 to April 26, 2012. The consultant submitted the administrative Draft EIR to SCAQMD in late July 2013. The Draft EIR was circulated for a 45-day public review and comment period from September 30, 2014 to November 13, 2014. Two comment letters were received and the consultant has prepared responses to comments which are undergoing SCAQMD review.	Environmental Audit, Inc.
Quemetco is proposing to modify existing SCAQMD permits to allow the facility to recycle more batteries and to eliminate the existing daily idle time of the furnaces. The proposed project will increase the rotary feed drying furnace feed rate limit from 600 to 750 tons per day and increase the amount of total coke material allowed to be processed. In addition, the project will allow the use of petroleum coke in lieu of or in addition to calcined coke, and remove one existing emergency diesel-fueled internal combustion engine (ICE) and install two new emergency natural gas-fueled ICEs.	Quemetco	Environmental Impact Report (EIR)	A Notice of Preparation/Initial Study (NOP/IS) has been prepared by the consultant and SCAQMD staff has provided comments. The consultant has provided a revised NOP/IS which is undergoing SCAQMD review before public release.	Trinity Consultants

ATTACHMENT C-1
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JUNE 30, 2018

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
Southern California Edison (SCE) is proposing to modify the air pollution control system for the Barre Peaker unit to repair current and prevent future water damage by: 1) decreasing the water-injection rate into the turbine's combustor; 2) replacing the oxidation catalyst and increasing the overall area of catalyst beds in the selective catalytic reduction (SCR) unit; 3) replacing the ammonia injection grid to improve the deliverability of ammonia to the catalyst; and, 4) increasing the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR unit from 19% to 29%. In addition, SCE is proposing to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one megawatt (MW) to full load (e.g., 45 MW net), while continuing to meet the emission limits in the current permit.	Southern California Edison	Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Barre Peaker Project in Stanton	A draft Addendum has been prepared by the consultant and SCAQMD staff has provided comments. The consultant has revised the Addendum which is undergoing SCAQMD staff review.	Yorke Engineering, LLC
Southern California Edison (SCE) is proposing to modify the air pollution control system for the Mira Loma Peaker unit to repair current and prevent future water damage by: 1) decreasing the water-injection rate into the turbine's combustor; 2) replacing the oxidation catalyst and increasing the overall area of catalyst beds in the Selective Catalytic Reduction (SCR) unit; 3) replacing the ammonia injection grid to improve the deliverability of ammonia to the catalyst; and, 4) increasing the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR unit from 19% to 29%. In addition, SCE is proposing to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one megawatt (MW) to full load (e.g., 45 MW net), while continuing to meet the emission limits in the current permit.	Southern California Edison	Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Mira Loma Peaker Project in Ontario	A draft Addendum has been prepared by the consultant and SCAQMD staff has provided comments. The consultant has revised the Addendum which is undergoing SCAQMD staff review.	Yorke Engineering, LLC

ATTACHMENT A-2*
INCOMING CEQA DOCUMENTS LOG
July 01, 2018 to July 31, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers **LAC180703-07** Telegraph Road and Santa Fe Springs Road Industrial Park	The proposed project consists of construction of four warehouses totaling 318,121 square feet on 17.9 acres. The project is located at 10255 Bloomfield Avenue, 10255 Santa Fe Springs Road, and 12405 Telegraph Road on the northwest corner of Santa Fe Springs Road and Telegraph Road. Reference LAC180614-01 Comment Period: N/A Public Hearing: 7/9/2018	Notice of Public Hearing	City of Santa Fe Springs	Document does not require comments
Warehouse & Distribution Centers **LAC180706-03** Telegraph Road and Santa Fe Springs Road Industrial Park	The proposed project consists of construction of four warehouses totaling 318,121 square feet on 17.9 acres. The project is located at 10255 Bloomfield Avenue, 10255 Santa Fe Springs Road, and 12405 Telegraph Road on the northwest corner of Santa Fe Springs Road and Telegraph Road. Reference LAC180703-07 and LAC180614-01 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Santa Fe Springs	Document reviewed - No comments sent
Warehouse & Distribution Centers **LAC180719-01** ENV-2016-4835: 14201 W. Paxton St. & 10601 N. Sharp Ave.	The proposed project consists of construction of two storage buildings totaling 100,000 square feet on 2.77 acres. The project is located on the northwest corner of Paxton Street and Sharp Avenue in the community of Arleta-Pacoima. Comment Period: 7/19/2018 - 8/8/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
Warehouse & Distribution Centers **RVC180703-03** Duke Warehouse at Patterson Avenue and Markham Street Project	The proposed project consists of construction of a 811,620-square-foot warehouse on 37.5 acres. The project is located on the southeast corner of Markham Street and Patterson Avenue. Reference RVC171004-04 Comment Period: 6/29/2018 - 8/13/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Perris	Under review, may submit written comments

**Sorted by Land Use Type (in order of land uses most commonly associated with air quality impacts), followed by County, then date received.*

- Project has potential environmental justice concerns due to the nature and/or location of the project.

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers **RVC180717-04** MA18092 (SDP 18039)	The proposed project consists of construction of two warehouse and office buildings totaling 20,175 square feet on 0.98 acres. The project is located near the southeast corner of Via Ricardo and Fleetwood Drive. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spma18092sdp-072718.pdf Comment Period: 7/13/2018 - 7/30/2018 Public Hearing: N/A	Site Plan	City of Jurupa Valley	SCAQMD staff commented on 7/27/2018
Warehouse & Distribution Centers **RVC180725-03** World Logistics Center	This document consists of revisions to Aesthetics, Air Quality/Health Risks, Land Use, Noise, and Transportation/Traffic sections for the proposed project. The proposed project consists of a new 2,610-acre Specific Plan envisioned to accommodate up to 40.6 million square feet of high cube industrial warehouse distribution development and related uses on 3,818 acres. The project is located southeast of the Redlands Boulevard and Eucalyptus Avenue intersection. Reference RVC150612-04, RVC150430-07 and SBC130206-01 Comment Period: 7/25/2018 - 9/7/2018 Public Hearing: N/A	Notice of Availability of a Revised Final Environmental Impact Report	City of Moreno Valley	Under review, may submit written comments
Warehouse & Distribution Centers **SBC180724-04** Operon Renaissance Rialto (Environmental Assessment Review No. 2018-0023 & Precise Plan of Design No. 2018-0020)	The proposed project consists of construction of three warehouses totaling 136,216 square feet on 8.44 acres. The project is located on the southeast corner of North Linden Avenue and West Casmalia Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndoperonrenaissance-080818.pdf Comment Period: 7/20/2018 - 8/8/2018 Public Hearing: 8/15/2018	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 8/8/2018
Airports **SBC180719-04** Eastgate Building 1 Project	The proposed project consists of construction of a 655,746-square-foot warehouse, and two maintenance and service buildings totaling 50,000 square feet on 101.52 acres. The project is located on the southwest corner of Perimeter Road and Hangar Way in the City of San Bernardino. Comment Period: 7/17/2018 - 8/16/2018 Public Hearing: 8/9/2018	Notice of Preparation	San Bernardino International Airport Authority	Under review, may submit written comments

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Industrial and Commercial **LAC180705-05** Carson Trucking Project	The proposed project consists of construction of truck storage parking facility with 565 spaces on 16 acres. The project is located near the southeast corner of South Avalon Boulevard and East 223rd Street. Comment Period: 7/3/2018 - 7/23/2018 Public Hearing: 8/14/2018	Mitigated Negative Declaration	City of Carson	Document reviewed - No comments sent
Industrial and Commercial **LAC180717-06** CUP Case No. 18-001, VAR Case No. 18-002 and MND No. 945	The proposed project consists of construction of truck-trailer storage facility with a 2,500-square-foot office building and 337 spaces on 7.8 acres. The project is located at 225 West Manville Street near the northwest corner of South Acacia Avenue and West Manville Street. Comment Period: 7/13/2018 - 8/3/2018 Public Hearing: 8/22/2018	Mitigated Negative Declaration	City of Compton	Document reviewed - No comments sent
Industrial and Commercial **ORC180719-05** House Foods Expansion Project	The proposed project consists of construction of a 36,763-square-foot industrial building on 10.4 acres. The project is located at 7351 and 7421 Orangewood Avenue on the northwest corner of Western Avenue and Orangewood Avenue. Reference ORC180622-01 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Garden Grove	Document reviewed - No comments sent
Industrial and Commercial **RVC180718-01** Palm Springs Northern Lights (Case No. 5.1437-CUP)	The proposed project consists of construction of four commercial cannabis cultivation facilities totaling 37,874 square feet on 2.01 acres. The project is located near the southeast corner of 19th Avenue and Ruppert Street. Comment Period: 7/18/2018 - 8/6/2018 Public Hearing: 9/12/2018	Mitigated Negative Declaration	City of Palm Springs	Document reviewed - No comments sent

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Industrial and Commercial **RVC180720-03** Oakridge First Street RV Storage Project	The proposed project consists of construction of recreational vehicle facility with 109 storage spaces on 2.67 acres. The project is located near the northeast corner of East First Street and Maple Avenue. Comment Period: 7/18/2018 - 8/16/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Beaumont	Document reviewed - No comments sent
Industrial and Commercial **RVC180725-01** Anza Cannabis Cultivation Facility	The proposed project consists of construction of a 10,504-square-foot cannabis cultivation facility on 0.34 acres. The project is located at 3573 North Anza Road near the southwest corner of West Radio Road and North Anza Road. Comment Period: 8/1/2018 - 8/21/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Palm Springs	Document reviewed - No comments sent
Industrial and Commercial **SBC180703-01** P201800159/CF	The proposed project consists of construction of truck parking facility with a 500-square-foot office building on 9.95 acres. The project is located on the southeast corner of Jurupa Avenue and Cactus Avenue in the community of Bloomington. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spp201800159cf-070618.pdf Comment Period: 6/29/2018 - 7/9/2018 Public Hearing: N/A	Site Plan	County of San Bernardino	SCAQMD staff commented on 7/6/2018
Industrial and Commercial **SBC180712-04** Monte Vista Water District Main Office Site Renovation Project	The proposed project consists of demolition of existing buildings, and construction of two office buildings totaling 27,130 square feet on 2.84 acres. The project is located at 10575 Central Avenue near the southeast corner of Central Avenue and Holt Boulevard in the City of Montclair. Comment Period: 7/13/2018 - 8/2/2018 Public Hearing: N/A	Mitigated Negative Declaration	Monte Vista Water District	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **LAC180703-05** Proposed Hazardous Waste Permit Renewal for Southern California Gas Company	The proposed project consists of final decision to issue permit to continue onsite storage and treatment of hazardous waste on 14 acres. The project is located at 2424 East Olympic Boulevard on the southeast corner of South Santa Fe Avenue and East Olympic Boulevard in the City of Los Angeles. Reference LAC180504-04, LAC161025-04 and LAC140220-01 Comment Period: N/A Public Hearing: N/A	Community Notice	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **LAC180711-03** Phibro-Tech, Inc. - Class 2 Permit Modification	The proposed project consists of request to operate Tank C-40. The project is located at 8851 Dice Road on the southwest corner of Dice Road and Burke Street in the City of Santa Fe Springs. Reference LAC180220-07 Comment Period: 7/6/2018 - 9/4/2018 Public Hearing: N/A	Permit Modification	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **LAC180711-06** San Gabriel River Watershed Project	The proposed project consists of reduction of recycled water discharge to San Gabriel River watershed from the San Jose Creek, Pomona, Whittier Narrows, Los Coyotes, and Long Beach water reclamation plants. The project is located along the San Gabriel River and the San Jose Creek near the northwest corner of Interstate 605 and Firestone Boulevard in the City of Norwalk. Comment Period: 7/11/2018 - 8/10/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	County Sanitation Districts of Los Angeles County	Document reviewed - No comments sent
Waste and Water-related **LAC180724-03** Berths 167-169 Shell Marine Oil Terminal Wharf Improvements Project	The proposed project consists of seismic and ground improvements, piping replacement and foundation support improvements, and topside equipment replacement on 12 acres. The project is located near the southwest corner of Fries Avenue and La Paloma in the Port of Los Angeles. Reference LAC180323-03, LAC160415-02 and LAC150630-17 Comment Period: N/A Public Hearing: 8/16/2018	Final Environmental Impact Report	City of Los Angeles Harbor Department	Document reviewed - No comments sent

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **LAC180726-05** U.S. Ecology Vernon, Inc. - Notice of Class 1 Permit Modification	The proposed project consists of modification to Waste Analysis Plan (WAP) to add waste profiles. The project is located at 3650 East 26th Street on the southeast corner of East 26th Street and South Downey Road in the City of Vernon. Comment Period: N/A Public Hearing: N/A	Permit Modification	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **LAC180726-06** Quemetco, Inc. - Notice of Class 1 Permit Modification	The proposed project consists of request to wash plastic with trisodium phosphate. The project also changes the facility contact information in the permit and supporting documentation. The project is located at 720 South 7th Avenue on the northeast corner of Salt Lake Avenue and South 7th Avenue in the City of Industry. Comment Period: N/A Public Hearing: N/A	Permit Modification	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **LAC180727-02** Industrial Service Oil Company, Inc. (ISOCI)	The proposed project consists of permit renewal for continued storage and treatment of hazardous wastes in one container management area and seven tank units. The project is located at 1700 South Soto Street near the northwest corner of South Soto Street and East Washington Boulevard in the community of Boyle Heights. Resource Conservation Recovery Act (RCRA) Comment Period: N/A Public Hearing: N/A	Permit Renewal	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **ORC180711-04** Coastal Development Permit Amendment No. 5-15-01670-A1	This document consists of request to extend permit expiration date for one year for the proposed project. The proposed project consists of replacement of three pipelines of four to six inches in diameter, stabilization of creek bank, and restoration of habitat. Comment Period: 7/2/2018 - 7/13/2018 Public Hearing: N/A	Extension of Time	California Coastal Commission	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **RVC180712-03** Regional Water Reclamation Facility Upgrade and Expansion	The proposed project consists of upgrade and expansion of existing facility from eight million gallons per day (MGD) to 12 MGD on 56 acres. The project is located at 31315 Chaney Street near the northwest corner of Denny Drive and Reid Street in the City of Lake Elsinore. Reference RVC180529-07 Comment Period: N/A Public Hearing: N/A	Response to Comments	Elsinore Valley Municipal Water District	Document reviewed - No comments sent
Waste and Water-related **RVC180718-02** Van Buren Boulevard Jurupa Community Services District (JCSD)-Riverside Public Utilities (RPU) Water Interconnection Project	The proposed project consists of construction of 6,450 linear feet potable water connection pipeline. The project is located along Van Buren Boulevard between Limonite Avenue and Jurupa Avenue in the cities of Riverside and Jurupa Valley. Comment Period: 7/17/2018 - 8/15/2018 Public Hearing: 9/24/2018	Mitigated Negative Declaration	Jurupa Community Services District	Document reviewed - No comments sent
Waste and Water-related **SBC180727-01** Oakmont Kadota Warehouse Project (Indoor Air Sampling Report & Land Use Covenant)	The proposed project consists of restrictions to prohibit building of sensitive uses, alteration of configuration of building without prior approval, and future disturbance of soil below four feet without management plan on 7.13 acres. The project is located at 10735 Kadota Avenue on the southeast corner of Kadota Avenue and State Street. Reference SBC180522-02 Comment Period: 7/27/2018 - 8/27/2018 Public Hearing: N/A	Public Notice	Department of Toxic Substances Control	Document reviewed - No comments sent
Transportation **LAC180703-10** Soto Street Roadway Widening Project from Multnomah Street to Mission Road	The proposed project consists of improvements to Soto Street including widening from three lanes to four lanes and construction of 2,500 feet of storm drain culvert. The project is located along Soto Street between Multnomah Street and Mission Road in the community of El Sereno-Lincoln Heights-Hillside Village. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndsotostreetroadway-080618.pdf Comment Period: 7/5/2018 - 8/6/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 8/6/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Transportation **LAC180711-05** West Santa Ana Branch (WSAB) Transit Corridor Project	This document consists of updates on the northern alignment options that will be studied for the proposed project. The proposed project consists of construction of a 20-mile light rail transit line. The project is located within the cities of Los Angeles, Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, and Artesia, and within the communities of Arts District, Little Tokyo, and unincorporated Florence-Graham. Reference LAC180301-10, LAC170809-07, LAC170614-08, LAC170608-01 and LAC170606-04 Comment Period: N/A Public Hearing: 8/4/2018	Public Notice	Los Angeles County Metropolitan Transportation Authority	Document does not require comments
Transportation **LAC180712-02** West Santa Ana Branch (WSAB) Transit Corridor Project	This document consists of updates on the northern alignment options that will be used for the proposed project. The proposed project consists of construction of a 20-mile light rail transit line. The project is located within the cities of Los Angeles, Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, and Artesia, and within the communities of Arts District, Little Tokyo, and unincorporated Florence-Graham. Reference LAC180711-05, LAC180301-10, LAC170809-07, LAC170614-08, LAC170608-01 and LAC170606-04 Comment Period: 7/11/2018 - 8/24/2018 Public Hearing: 7/23/2018	Revised Notice of Preparation	Los Angeles County Metropolitan Transportation Authority	Document reviewed - No comments sent
Transportation **LAC180717-13** Inglewood Transit Connector	The proposed project consists of construction of automated people mover system with dual guideways and support facilities. The project is located on the northwest corner of West Century Boulevard and South Prairie Avenue. Comment Period: 7/16/2018 - 8/15/2018 Public Hearing: 7/26/2018	Notice of Preparation	City of Inglewood	Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Transportation **LAC180720-05** West Santa Ana Branch (WSAB) Transit Corridor Project	This document consists of updates on the northern alignment options that will be used for the proposed project. The proposed project consists of construction of a 20-mile light rail transit line. The project is located within the cities of Los Angeles, Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, and Artesia, and within the communities of Arts District, Little Tokyo, and unincorporated Florence-Graham. Reference LAC180712-02, LAC180711-05, LAC180301-10, LAC170809-07, LAC170614-08, LAC170608-01 and LAC170606-04 Comment Period: N/A Public Hearing: 7/23/2018	Public Notice	Los Angeles County Metropolitan Transportation Authority	Document does not require comments
Transportation **ODP180719-03** State Route 14/Avenue M Project	The proposed project consists of improvements to the State Route (SR) 14 and Avenue M interchange by widening a one-mile segment of Avenue M between 20th Street West and 10th Street West in the City of Palmdale and the City of Lancaster. Comment Period: N/A Public Hearing: N/A	Response to Comments	Department of Transportation	Document reviewed - No comments sent
Institutional (schools, government, etc.) **LAC180705-07** ArtCenter College of Design Master Plan	The proposed project consists of development of two campuses: the Hillside Campus and the South Campus over 15 years. The Hillside Campus will include construction of two buildings totaling 19,020 square feet and photovoltaic canopies with a maximum height of 20 feet on 155.95 acres. The South Campus will include construction of two student housing buildings with a maximum of 850 beds totaling 240,000 square feet and four administrative buildings totaling 220,000 square feet on 6.68 acres. The Hillside Campus of the project is located at 1700 Lida Street on the southeast corner of Pegfair Lane and Figueroa Street. The South Campus of the project is located on the northeast corner of South Raymond Avenue and East Glenarm Street. Reference LAC180425-01, LAC171213-02 and LAC171026-02 Comment Period: N/A Public Hearing: 7/16/2018	Notice of Public Hearing	City of Pasadena	Document does not require comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.
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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Institutional (schools, government, etc.) **SBC180711-01** Mental Health Crisis Facility	The proposed project consists of demolition of existing building and construction of a 47,000-square-foot mental health treatment facility with 50 beds on three acres. The project is located at 14901 Central Avenue near the southeast corner of Central Avenue and Eucalyptus Avenue in the City of Chino. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopmentalhealthcrisis-081018.pdf Comment Period: 7/9/2018 - 8/13/2018 Public Hearing: 7/26/2018	Notice of Preparation	California Department of Corrections and Rehabilitation	SCAQMD staff commented on 8/10/2018
Institutional (schools, government, etc.) **SBC180717-12** Omya Sentinel and Butterfield Quarries Expansion Project	The proposed project consists of expansion of existing Sentinel and Butterfield quarries by 94.9 acres on 954 acres. The project is located southwest of the intersection between Highway 247 and Highway 18 within San Bernardino National Forest in the community of Big Bear. Reference SBC130305-02 Comment Period: 7/13/2018 - 8/27/2018 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report/ Environmental Impact Statement	United States Department of Agriculture Forest Service	Document reviewed - No comments sent
Medical Facility **LAC180706-04** Symphony at San Gabriel	The proposed project consists of construction of assisted living facility with 197 residential units and subterranean parking on 3.08 acres. The project is located at 824 South Gladys Avenue near the northeast corner of South Gladys Avenue and East Grand Avenue. Reference LAC180522-03 Comment Period: N/A Public Hearing: 7/9/2018	Response to Comments	City of San Gabriel	Document reviewed - No comments sent
Retail **LAC180703-09** Miramar Hotel Project	The proposed project consists of demolition of 199,284 square feet of existing buildings, and construction of 439,157 square feet of hotel and residential uses including a hotel with 312 rooms, 108 residential units, and subterranean parking on 4.8 acres. The project would also include 50,000 square feet of open space. The project is located at 1133 Ocean Avenue and 1127 2nd Street on the southeast corner of Ocean Avenue and California Avenue. Reference LAC130502-05 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopmiramarhotel-072718.pdf Comment Period: 6/29/2018 - 7/30/2018 Public Hearing: 7/19/2018	Recirculated Notice of Preparation	City of Santa Monica	SCAQMD staff commented on 7/27/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail **LAC180705-02** ENV-2016-2549: 520 N. La Brea Ave.	The proposed project consists of construction of a 3,516-square-foot theater with 128 seats on 4,200 square feet. The project is located near the northeast corner of La Brea Avenue and Rosewood Avenue in the community of Hollywood. Comment Period: 7/5/2018 - 7/25/2018 Public Hearing: N/A	Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
Retail **LAC180711-02** Norwalk Boulevard Hotel Development	The proposed project consists of construction of a 77,900-square-foot hotel with 110 rooms and subterranean parking on a 1.07-acre portion of 6.1 acres. The project is located on the southwest corner of Telegraph Road and Norwalk Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndnorwalkboulevard-072618.pdf Comment Period: 7/11/2018 - 7/26/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Santa Fe Springs	SCAQMD staff commented on 7/26/2018
Retail **LAC180717-02** SP-2017-012 (EA-MND-2017-98)	The proposed project consists of construction of a 105,392-square-foot hotel with 120 rooms on 29,931 square feet. The project is located at 11111 South Prairie Avenue on the southwest corner of South Prairie Avenue and West 111th Street. Comment Period: N/A Public Hearing: 7/11/2018	Notice of Public Hearing	City of Inglewood	Document reviewed - No comments sent
Retail **LAC180717-09** Monrovia Towneplace Suites Project	The proposed project consists of construction of a 68,000-square-foot hotel with 109 rooms on 1.71 acres. The project is located at 102-140 West Huntington Drive on the southwest corner of South Myrtle Avenue and Huntington Drive. Reference LAC180613-01 Comment Period: 7/16/2018 - 8/15/2018 Public Hearing: 8/15/2018	Notice of Public Hearing	City of Monrovia	Document does not require comments

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail **LAC180719-02** ENV-2018-791: 9110 N. De Soto Ave.	The proposed project consists of demolition of a 9,361-square-foot building, and construction of a 79,847-square-foot storage building, a 2,500-square-foot convenience store, and a gas station with six pumps on 57,615 square feet. The project is located on the northeast corner of Nordhoff Street and De Soto Avenue in the community of Chatsworth-Porter Ranch. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mnd9110desotoave-080818.pdf Comment Period: 7/19/2018 - 8/8/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 8/8/2018
Retail **RVC180717-11** Conditional Use Permit No. 3761 - EA42962	The proposed project consists of construction of a gas station with eight pumps. The project will also include construction of a 1,975-square-foot convenience store, two underground fuel storage tanks, and a 1,632-square-foot canopy on 0.28 acres. The project is located on the northeast corner of Center Street and Iowa Avenue in the community of Highgrove. Reference RVC180308-04 and RVC161115-04 Comment Period: N/A Public Hearing: 8/15/2018	Notice of Public Hearing	County of Riverside	Document does not require comments
Retail **RVC180720-01** CUP16-008 (Shop N Go) Resubmittal	The proposed project consists of construction of 25,885 square feet of retail space, a 4,859-square-foot fuel canopy, and a gasoline station with 16 fueling pumps on 4.04 acres. The project is located at 855 North Sanderson Avenue on the southwest corner of West Fruitvale Avenue and North Sanderson Avenue. Reference RVC180126-04 Comment Period: N/A Public Hearing: 8/2/2018	Site Plan	City of Hemet	Document reviewed - No comments sent
Retail **RVC180720-02** Lake Elsinore Honda (Commercial Design Review No. 2018-02, Tentative Parcel Map No. 37534, and Conditional Use Permit No. 2017-18)	The proposed project consists of construction of a 53,425-square-foot automobile sales and service facility on 6.97 acres. The project is located on the northeast corner of 3rd Street and Collier Avenue. Comment Period: 7/19/2018 - 8/7/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Lake Elsinore	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A-2
INCOMING CEQA DOCUMENTS LOG
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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail **RVC180726-04** The Exchange	The proposed project consists of construction of 482 residential units totaling 479,773 square feet, two hotels totaling 130,000 square feet with 229 rooms, 49,500 square feet of commercial uses, a gas station, and a recreational vehicle parking lot on 35.4 acres. The project is located on the southeast corner of Strong Street and Orange Street. Comment Period: 7/25/2018 - 8/24/2018 Public Hearing: N/A	Notice of Preparation	City of Riverside	Under review, may submit written comments
Retail **RVC180727-03** The Exchange (EIR P18-0401)	The proposed project consists of construction of 482 residential units totaling 479,773 square feet, two hotels totaling 130,000 square feet with 229 rooms, 49,500 square feet of commercial uses, a gas station, and a recreational vehicle parking lot on 35.4 acres. The project is located on the southeast corner of Strong Street and Orange Street. Reference RVC180726-04 Comment Period: N/A Public Hearing: 8/2/2018	Notice of Public Hearing	City of Riverside	Document does not require comments
Retail **SBC180703-06** P201800248/MUP	The proposed project consists of demolition and removal of 4,742 square feet of existing buildings, and construction of a 15,000-square-foot yard and landscaping facility on 2.54 acres. The project is located at 8636 Banana Avenue near the northwest corner of Whittram Avenue and Banana Avenue in the City of Fontana. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spp201800248mup-071218.pdf Comment Period: 6/29/2018 - 7/12/2018 Public Hearing: N/A	Site Plan	County of San Bernardino	SCAQMD staff commented on 7/12/2018
Retail **SBC180717-05** Fast5Xpress Car Wash Project	The proposed project consists of demolition of two residential units and construction of a 5,486-square-foot car wash on 1.41 acres. The project is located at 1659 and 1695 South Tippecanoe Avenue, 1155 East Gould Street, and 1158 East Davidson Street on the northeast corner of East Davidson Street and South Tippecanoe Avenue. Comment Period: 7/17/2018 - 8/16/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of San Bernardino	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
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ATTACHMENT A-2
INCOMING CEQA DOCUMENTS LOG
July 01, 2018 to July 31, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC180703-02** 1001 Olympic (Olympia) - ENV-2016-4889-EIR	The proposed project consists of demolition of a 43,892-square-foot medical facility, and construction of three buildings totaling 1,845,831 square feet with subterranean parking on 3.26 acres. The project will be developed with one of the two options. Option one will include 1,367 residential units. Option two will include 879 residential units and a hotel with 1,000 rooms. The project will also include 163,015 square feet of open space. The project is located on the northwest corner of Olympic Boulevard and Georgia Street in the community of Central City. Comment Period: 6/28/2018 - 8/13/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Los Angeles	Under review, may submit written comments
General Land Use (residential, etc.) **LAC180705-01** ENV-2017-2834: 3755 N. Camino de la Cumbre & 3771 N. Camino de la Ronda	The proposed project consists of construction of a 2,860-square-foot residential unit on 12,333 square feet. The project is located near the southwest corner of Camino de Solana and Camino de la Cumbre in the community of Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass. Comment Period: 7/5/2018 - 7/25/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180705-03** ENV-2017-2575: 1100-1108 W. Temple St., 1101-1111 W. Angelina St. & 333 N. Beaudry Ave.	The proposed project consists of demolition of existing auto repair facility, removal of two billboards, and construction of a 47,291-square-foot building with 53 residential units on 15,764 square feet. The project is located on the northwest corner of West Temple Street and North Beaudry Avenue in the community of Westlake. Comment Period: 7/5/2018 - 8/6/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180705-04** Tentative Tract Map SUBTT19917	The proposed project consists of subdivision of 7.17 acres for future development of 10 residential units. The project is located on the southeast corner of Raindrop Place and Gypsum Drive. Reference SBC160209-03 Comment Period: 7/2/2018 - 8/8/2018 Public Hearing: 8/8/2018	Mitigated Negative Declaration	City of Rancho Cucamonga	Document reviewed - No comments sent

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ATTACHMENT A-2
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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC180705-06** Tesoro del Valle (Phases A, B, and C)	The proposed project consists of construction of 820 residential units that were originally approved in 1999 but were not constructed on a 393.6-acre portion of 1,274.6 acres. The project will also include 19.1 acres of open space. The project is located near the southwest corner of North Quail Trail and San Francisquito Canyon Road within the City of Santa Clarita. Reference LAC180529-04, LAC180306-06, LAC161011-05 and LAC100803-07 Comment Period: N/A Public Hearing: 8/1/2018	Notice of Public Hearing	County of Los Angeles	Document does not require comments
General Land Use (residential, etc.) **LAC180705-08** Lakeland Apartments	The proposed project consists of construction of seven buildings totaling 170,082 square feet with 128 residential units on 5.13 acres. The project is located on the southwest corner of Lakeland Road and Carmenita Road. Reference LAC180601-05, LAC180403-05 and LAC180327-08 Comment Period: N/A Public Hearing: 7/12/2018	Notice of Public Hearing	City of Santa Fe Springs	Document does not require comments
General Land Use (residential, etc.) **LAC180717-07** Birch Specific Plan	The proposed project consists of demolition of 6,200 square feet of existing buildings and construction of a 40,532-square-foot building with 32 residential units on 0.78 acres. The project is located at 21809-21811 South Figueroa Street near the southwest corner of South Figueroa Street and West Carson Street. Reference LAC180503-06 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Carson	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180717-08** 22-Unit Condominium Housing Project	The proposed project consists of demolition of existing theater building and parking lot, and construction of a 37,720-square-foot building with 22 residential units on 0.97 acres. The project is located at 135-145 North 1st Street on the southeast corner of Glendora Avenue and Workman Street. Comment Period: 7/13/2018 - 8/14/2018 Public Hearing: N/A	Notice of Preparation	City of La Puente	Under review, may submit written comments

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC180717-10** Avalon Monrovia Specific Plan and Mixed-Use Development	The proposed project consists of construction of a building with 154 residential units and 3,500 square feet of retail uses on 2.1 acres. The project is located at 825 and 815 South Myrtle Avenue, and 126 West Walnut Avenue on the northwest corner of South Myrtle Avenue and West Chestnut Avenue. Comment Period: 7/16/2018 - 8/15/2018 Public Hearing: 8/15/2018	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Monrovia	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180720-06** Tesoro del Valle (Phases A, B, and C)	The proposed project consists of construction of 820 residential units that were originally approved in 1999 but were not constructed on a 393.6-acre portion of 1,274.6 acres. The project will also include 19.1 acres of open space. The project is located near the southwest corner of North Quail Trail and San Francisquito Canyon Road within the City of Santa Clarita. Reference LAC180705-06, LAC180529-04, LAC180306-06, LAC161011-05 and LAC100803-07 Comment Period: N/A Public Hearing: 8/1/2018	Final Environmental Impact Report	County of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180724-02** Construction and Maintenance Division Building Renovation Project	The proposed project consists of demolition of two buildings and renovation of site with ancillary improvements on 16 acres. The project is located at 801 South Fries Avenue on the northwest corner of South Fries Avenue and San Clemente Avenue. Comment Period: 7/23/2018 - 8/21/2018 Public Hearing: N/A	Negative Declaration	City of Los Angeles Harbor Department	Under review, may submit written comments
General Land Use (residential, etc.) **LAC180726-01** ENV-2016-307: 1270 Marinette Rd.	The proposed project consists of demolition of one residential unit and subdivision of 96,612 square feet for future development of five residential units. The project is located near the southeast corner of Marinette Road and Paskenta Road in the community of Brentwood-Pacific Palisades. Comment Period: 7/26/2018 - 8/15/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent

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ATTACHMENT A-2
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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC180726-02** ENV-2017-1259: 560, 566, 572, 578, 600, 608, 614, and 620 N. Marquette St.	The proposed project consists of demolition of two residential units and construction of eight residential units totaling 54,544 square feet on 64,483 square feet. The project is located near the southeast corner of North Marquette Street and North Grenola Street in the community of Brentwood-Pacific Palisades. Comment Period: 7/26/2018 - 8/15/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC180726-03** Tapia Ranch (Project No. R2012-02667)	The proposed project consists of construction of 405 residential units, a 5.6-acre park, public streets, trails, and associated improvements on 1,167 acres. The project is located northeast of the Wayside Canyon Road and Tapia Canyon Road intersection in the community of Castaic. Comment Period: 8/1/2018 - 8/31/2018 Public Hearing: 8/16/2018	Notice of Preparation	County of Los Angeles	Under review, may submit written comments
General Land Use (residential, etc.) **ORC180703-08** Killefer Square Project (MND No. 1844-15)	The proposed project consists of demolition of existing structures and conversion of a 30,010-square-foot building from school to 24 residential units on 1.7 acres. The project is located at 541 North Lemon Street near the northwest corner of Walnut Avenue and North Olive Street. Reference ORC180529-02, ORC180524-04 and ORC180320-04 Comment Period: N/A Public Hearing: 7/10/2018	Notice of Public Hearing	City of Orange	Document does not require comments
General Land Use (residential, etc.) **ORC180712-01** Lakeview Senior Living	The proposed project consists of construction of a 126,000-square-foot senior living facility with 250 beds on 4.99 acres. The project is located on the southeast corner of Lakeview Avenue and Mariposa Avenue. Reference ORC180522-09 and ORC170505-06 Comment Period: N/A Public Hearing: 7/25/2018	Response to Comments	City of Yorba Linda	Document reviewed - No comments sent

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **ORC180713-01** Nakase Nursery/Toll Brothers Project	The proposed project consists of construction of 776 residential buildings, an elementary school that would accommodate 800 to 1,000 students, and 28 acres of parks and open space on 122 acres. The project is located at 20261 Lake Forest Drive on the southwest corner of Rancho Parkway and Lake Forest Drive. Comment Period: 7/16/2018 - 8/15/2018 Public Hearing: 7/25/2018	Notice of Preparation	City of Lake Forest	Under review, may submit written comments
General Land Use (residential, etc.) **RVC180710-01** Revel Palm Desert	The proposed project consists of construction of 184 residential units on 8.4 acres. The project is located near the northeast corner of Portola Avenue and Country Club Drive. Comment Period: 7/11/2018 - 7/30/2018 Public Hearing: 8/21/2018	Mitigated Negative Declaration	City of Palm Desert	Document reviewed - No comments sent
General Land Use (residential, etc.) **RVC180720-04** The Trails at Corona	The proposed project consists of construction of 426 residential units, 0.78 acres of retail and commercial uses, and 1.82 acres of open space on 104.8 acres. The project is located near the northwest corner of Avenida Del Vista and West Ontario Avenue in the City of Corona and communities of Green River and Prado Basin. Comment Period: 7/26/2018 - 8/27/2018 Public Hearing: 8/7/2018	Notice of Preparation	County of Riverside	Under review, may submit written comments
General Land Use (residential, etc.) **RVC180725-02** The Trails at Corona	This document changes the public scoping meeting date from August 27, 2018 to August 7, 2018 for the proposed project. The proposed project consists of construction of 426 residential units, 0.78 acres of retail and commercial uses, and 1.82 acres of open space on 104.8 acres. The project is located near the northwest corner of Avenida Del Vista and West Ontario Avenue in the City of Corona and communities of Green River and Prado Basin. Reference RVC180720-04 Comment Period: 7/26/2018 - 8/27/2018 Public Hearing: 8/7/2018	Revised Notice of Preparation	County of Riverside	Document does not require comments

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ATTACHMENT A-2
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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Plans and Regulations **LAC180703-04** Lynwood Transit Area Specific Plan	The proposed project consists of amendments to policies and development standards for transit-oriented communities on 315 acres. The project is located on the southeast corner of North Santa Ana Boulevard and Alameda Street. Reference LAC180622-02 and LAC160729-01 Comment Period: 6/25/2018 - 7/25/2018 Public Hearing: N/A	Public Notice	City of Lynwood	Document reviewed - No comments sent
Plans and Regulations **LAC180718-03** Purple Line Transit Neighborhood Plan	The proposed project consists of amendments to the land use and zoning regulations of the City's General Plan and Municipal Code for properties within proximity to the Purple Line Extension area. The project is located northwest of the South Rimpau Boulevard and Pico Boulevard intersection in the community of Wilshire. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/noppurplelinetransit-081018.pdf Comment Period: 7/12/2018 - 8/13/2018 Public Hearing: 7/26/2018	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 8/10/2018
Plans and Regulations **LAC180718-04** Orange Line Transit Neighborhood Plan	The proposed project consists of amendments to the land use and zoning regulations of the City's General Plan and Municipal Code for properties within proximity to the 18-mile Metro Orange Line area. The project is located southwest of the Woodman Avenue and Vanowent Street intersection, and southwest of the Clybourn Avenue and Oxnard Street intersection in the community of Van Nuys-North Sherman Oaks-North Hollywood-Valley Village. Comment Period: 7/12/2018 - 8/15/2018 Public Hearing: 7/25/2018	Notice of Preparation	City of Los Angeles	Under review, may submit written comments
Plans and Regulations **LAC180724-01** Zoning Code Amendment (ZCA 2018-01) and Zoning Map Amendment (ZMA 2018-02)	The proposed project consists of amendment to City's zoning code and zoning map to establish provisions and development standards for new schools and public institutional land use. Comment Period: 7/1/2018 - 8/1/2018 Public Hearing: 8/1/2018	Notice of Intent to Adopt a Negative Declaration	City of Long Beach	Document reviewed - No comments sent

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SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Plans and Regulations **RVC180717-03** Arantine Hills Specific Plan Amendment	This document changes land use designations and includes additional 35.28 acres, but results in development of same number of overall residential units as the originally approved proposed project. The proposed project consists of construction of 1,806 residential units and 80,000 square feet of commercial uses on 276 acres. The project is located near the southwest corner of Interstate 15 and Eagle Glen Parkway. Reference RVC160621-06, RVC160506-01, RVC160108-02, RVC120515-01 and RVC100121-02 Comment Period: N/A Public Hearing: 7/19/2018	Public Notice	City of Corona	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT B-2*
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers **RVC180626-03** Banning Distribution Center (GPA 17-2501, ZC 17-3501)	The proposed project consists of construction of a 1,000,000-square-foot warehouse on 63.9 acres. The project is located near the northeast corner of East Lincoln Street and South Hathaway Street. Reference RVC180123-01 Comment Period: 6/26/2018 - 8/9/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Banning	Under review, may submit written comments
Airports **LAC180628-05** Los Angeles International Airport (LAX) United Airlines Aircraft Maintenance and Ground Support Equipment Project	The proposed project consists of demolition of existing structures and construction of a 411,000-square-foot aircraft maintenance and ground support equipment facility on 35 acres. The project is located at 6000-6016 and 6020-6024 Avion Drive near the southwest corner of Airport Boulevard and West Century Boulevard. Reference LAC171207-04 Comment Period: 6/28/2018 - 8/13/2018 Public Hearing: 7/31/2018	Draft Environmental Impact Report	Los Angeles World Airports	Under review, may submit written comments
Warehouse & Distribution Centers **SBC180622-06** Seefried Valley and Catawba Warehouse Project	The proposed project consists of construction of a 376,910-square-foot warehouse on 17.6 acres. The project is located on the southwest corner of Valley Boulevard and Catawba Avenue. Reference SBC180404-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirseefriedvalley-080718.pdf Comment Period: 6/22/2018 - 8/6/2018 Public Hearing: 7/17/2018	Draft Environmental Impact Report	City of Fontana	SCAQMD staff commented on 8/7/2018
Industrial and Commercial **ORC180622-01** House Foods Expansion Project	The proposed project consists of construction of a 36,763-square-foot industrial building on 10.4 acres. The project is located at 7351 and 7421 Orangewood Avenue on the northwest corner of Western Avenue and Orangewood Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndhousefoods-070618.pdf Comment Period: 6/22/2018 - 7/12/2018 Public Hearing: 7/19/2018	Mitigated Negative Declaration	City of Garden Grove	SCAQMD staff commented on 7/6/2018

Sorted by Comment Status, followed by Land Use, then County, then date received.

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B-2
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Industrial and Commercial **RVC180615-02** Pilot Flying J Travel Center Project	The proposed project consists of construction of a 15,220-square-foot truck travel center on 11.95 acres. The project is located on the northwest corner of Riverside Drive and Etiwanda Avenue. Reference RVC180613-03, RVC180320-03, RVC170620-02, RVC170321-03, RVC170222-02 and RVC161101-23 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/deirpilotflyingjtravel-072018.pdf Comment Period: 6/7/2018 - 7/23/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Jurupa Valley	SCAQMD staff commented on 7/20/2018
Waste and Water-related **ORC180626-01** Smith Basin Improvement Project	The proposed project consists of grading, repair, and other structural improvements to Smith Basin to increase the geotechnical stability of embankment slopes. The project is located near the northwest corner of Hewes Street and Villa Park Road in the City of Orange. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopsmithbasin-072618.pdf Comment Period: 6/26/2018 - 7/26/2018 Public Hearing: N/A	Notice of Preparation	Orange County Water District	SCAQMD staff commented on 7/26/2018
Waste and Water-related **RVC180626-04** Edom Hill Compost Facility and Truck Climbing Lane	The proposed project consists of construction of waste composting facility that would accept up to 500 tons of food and green waste, and up to 25,000 gallons of grease trap liquid per day on 20 acres. The project is located at 69780 Edom Hill Road near the northeast corner of Varner Road and Edom Hill Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndedomhillcompost-080118.pdf Comment Period: 6/25/2018 - 7/24/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Cathedral City	SCAQMD staff commented on 8/1/2018
Waste and Water-related **RVC180628-04** Cactus II Feeder Transmission Pipeline	The proposed project consists of construction of a transmission pipelines of 30 to 40 inches in diameter and five miles in length. The project is located on the northeast corner of Cactus Avenue and Heacock Street in the City of Moreno Valley. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/mndcactusiifeeder-080118.pdf Comment Period: 6/28/2018 - 7/30/2018 Public Hearing: 9/5/2018	Notice of Intent to Adopt a Mitigated Negative Declaration	Eastern Municipal Water District	SCAQMD staff commented on 8/1/2018
Institutional (schools, government, etc.) **RVC180621-05** North District Development Plan	The proposed project consists of construction of student housing facilities with a total of 6,000 beds on 55 acres. The project is located at 900 University Avenue near the southwest corner of Aberdeen Drive and North Campus Drive in the City of Riverside. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopnorthdistrict-072018.pdf Comment Period: 6/19/2018 - 7/20/2018 Public Hearing: 7/3/2018	Notice of Preparation	University of California	SCAQMD staff commented on 7/20/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT B-2
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail **RVC180628-02** The Merge Retail and Light Industrial Development (Project No. PLN18-20026)	The proposed project consists of construction of eight industrial and warehouse buildings totaling 336,501 square feet, and 72,600 square feet of retail uses including a gas station and car wash on 26 acres. The project is located on the northeast corner of Archibald Avenue and Limonite Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopthemergeretail-072718.pdf Comment Period: 6/29/2018 - 7/30/2018 Public Hearing: 7/18/2018	Notice of Preparation	City of Eastvale	SCAQMD staff commented on 7/27/2018
Retail **RVC180628-03** Costco/Vineyard II Retail Development	The proposed project consists of construction of a 150,000-square-foot warehouse, a gas station with 32 pumps, a 37,000-square-foot fitness center, and 19,500 square feet of retail uses on 26 acres. The project is located on the northeast corner of Clinton Keith Road and Antelope Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopcostcovineyard-072618.pdf Comment Period: 6/27/2018 - 7/26/2018 Public Hearing: 7/10/2018	Notice of Preparation	City of Murrieta	SCAQMD staff commented on 7/26/2018
General Land Use (residential, etc.) **LAC180619-04** Tentative Tract Map (TTM) 72798	The proposed project consists of subdivision of 25 acres for future development of 28 residential units. The project is located at 800 Meadow Pass Road near the southeast corner of North Lemon Avenue and Meadow Pass Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/sptm72798-071318.pdf Comment Period: 6/15/2018 - 7/14/2018 Public Hearing: N/A	Site Plan	City of Walnut	SCAQMD staff commented on 7/13/2018
General Land Use (residential, etc.) **LAC180620-01** Rancho Cienega Celes King III Pool Demolition Project	The proposed project consists of demolition of existing building, and construction of community playground including installation of utilities, playground, and shade structures on 0.4 acres. The project is located at 5001 Rodeo Road on the northeast corner of Rodeo Road and West Martin Luther King Jr Boulevard in the community of West Adams-Baldwin Hills-Leimert. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopranchocienegaceles-070618.pdf Comment Period: 6/21/2018 - 7/20/2018 Public Hearing: 6/28/2018	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 7/6/2018
General Land Use (residential, etc.) **LAC180626-02** Tentative Parcel Map No. (TPM) 77167	The proposed project consists of subdivision of 1.12 acres for future development of two residential units. The project is located at 455 Camino de Gloria near the southwest corner of Camino de Gloria and East Calle Baja Drive. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/sptpm77167-071818.pdf Comment Period: 6/26/2018 - 7/18/2018 Public Hearing: N/A	Site Plan	City of Walnut	SCAQMD staff commented on 7/18/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.

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ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC180627-01** California Grand Village Project	The proposed project consists of construction of 253 residential units on a 4.48-acre portion of 19.36 acres. The project is located on the northeast corner of East 10th Street and North Todd Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/nopcaliforniagrandvillage-072718.pdf Comment Period: 6/27/2018 - 7/27/2018 Public Hearing: 7/11/2018	Notice of Preparation	City of Azusa	SCAQMD staff commented on 7/27/2018
General Land Use (residential, etc.) **ORC180619-03** Metro East Mixed-Use Overlay Zone Expansion and Elan Development Projects	The proposed project consists of construction of two buildings with a total of 603 residential units, 8,500 square feet of commercial uses, and subterranean parking on a 6.4-acre portion of 200 acres. The project is located at 1660 East First Street on the southwest corner of Mabury Street and East 1st Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/dseirmetroeastmixeduse-072718.pdf Comment Period: 6/12/2018 - 7/27/2018 Public Hearing: 7/23/2018	Draft Subsequent Environmental Impact Report	City of Santa Ana	SCAQMD staff commented on 7/27/2018
General Land Use (residential, etc.) **SBC180621-01** Conditional Use Permit (CUP 18-002), Design Review Application (DRA 18-007), and Tentative Tract Map 18-002	The proposed project consists of construction of 12 buildings with a total of 50 residential units on four acres. The project is located near the southwest of Highland Avenue and Boulder Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/spcup18002-070618.pdf Comment Period: 6/21/2018 - 7/10/2018 Public Hearing: N/A	Site Plan	City of Highland	SCAQMD staff commented on 7/6/2018
Plans and Regulations **LAC180622-02** Plaza Mexico Residences (Lynwood Transit Area Specific Plan)	The proposed project consists of construction of a building with 348 residential units and 26,417 square feet of retail uses on a 3.6-acre portion of 315 acres. The project is located at 3000 East Imperial Highway on the northwest corner of State Street and Beechwood Avenue. Reference LAC160729-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/dseirplazamexico-080718.pdf Comment Period: 6/21/2018 - 8/6/2018 Public Hearing: N/A	Draft Supplemental Environmental Impact Report	City of Lynwood	SCAQMD staff commented on 8/7/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.

ATTACHMENT C-2
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JULY 31, 2018

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
The Phillips 66 (formerly ConocoPhillips) Los Angeles Refinery Ultra Low Sulfur Diesel project was originally proposed to comply with federal, state and SCAQMD requirements to limit the sulfur content of diesel fuels. Litigation against the CEQA document was filed. Ultimately, the California Supreme Court concluded that the SCAQMD had used an inappropriate baseline and directed the SCAQMD to prepare an EIR, even though the project has been built and has been in operation since 2006. The purpose of this CEQA document is to comply with the Supreme Court's direction to prepare an EIR.	Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery	Environmental Impact Report (EIR)	The Notice of Preparation/Initial Study (NOP/IS) was circulated for a 30-day public comment period on March 26, 2012 to April 26, 2012. The consultant submitted the administrative Draft EIR to SCAQMD in late July 2013. The Draft EIR was circulated for a 45-day public review and comment period from September 30, 2014 to November 13, 2014. Two comment letters were received and the consultant has prepared responses to comments which are undergoing SCAQMD review.	Environmental Audit, Inc.
Quemetco is proposing to modify existing SCAQMD permits to allow the facility to recycle more batteries and to eliminate the existing daily idle time of the furnaces. The proposed project will increase the rotary feed drying furnace feed rate limit from 600 to 750 tons per day and increase the amount of total coke material allowed to be processed. In addition, the project will allow the use of petroleum coke in lieu of or in addition to calcined coke, and remove one existing emergency diesel-fueled internal combustion engine (ICE) and install two new emergency natural gas-fueled ICEs.	Quemetco	Environmental Impact Report (EIR)	A Notice of Preparation/Initial Study (NOP/IS) has been prepared by the consultant and SCAQMD staff has provided comments. The consultant has provided a revised NOP/IS which is undergoing SCAQMD review before public release.	Trinity Consultants

ATTACHMENT C-2
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JULY 31, 2018

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
Southern California Edison (SCE) is proposing to modify the air pollution control system for the Barre Peaker unit to repair current and prevent future water damage by: 1) decreasing the water-injection rate into the turbine's combustor; 2) replacing the oxidation catalyst and increasing the overall area of catalyst beds in the selective catalytic reduction (SCR) unit; 3) replacing the ammonia injection grid to improve the deliverability of ammonia to the catalyst; and, 4) increasing the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR unit from 19% to 29%. In addition, SCE is proposing to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one megawatt (MW) to full load (e.g., 45 MW net), while continuing to meet the emission limits in the current permit.	Southern California Edison	Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Barre Peaker Project in Stanton	SCAQMD staff has provided revised Draft Addendum for the consultant to review. SCAQMD staff is awaiting a response from the consultant.	Yorke Engineering, LLC
Southern California Edison (SCE) is proposing to modify the air pollution control system for the Mira Loma Peaker unit to repair current and prevent future water damage by: 1) decreasing the water-injection rate into the turbine's combustor; 2) replacing the oxidation catalyst and increasing the overall area of catalyst beds in the Selective Catalytic Reduction (SCR) unit; 3) replacing the ammonia injection grid to improve the deliverability of ammonia to the catalyst; and, 4) increasing the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR unit from 19% to 29%. In addition, SCE is proposing to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one megawatt (MW) to full load (e.g., 45 MW net), while continuing to meet the emission limits in the current permit.	Southern California Edison	Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Mira Loma Peaker Project in Ontario	SCAQMD staff has provided revised Draft Addendum for the consultant to review. SCAQMD staff is awaiting a response from the consultant.	Yorke Engineering, LLC

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 16

REPORT: RFPs Scheduled for Release in September

SYNOPSIS: This report summarizes the RFPs for budgeted services over $75,000 scheduled to be released for advertisement for the month of September.

COMMITTEE: Administrative, July 13, 2018; Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

SJ:av

Background
At its January 8, 2010 meeting, the Board approved a revised Procurement Policy and Procedure. Under the revised policy, RFPs for budgeted items over $75,000, which follow the Procurement Policy and Procedure, no longer require individual Board approval. However, a monthly report of all RFPs over $75,000 is included as part of the Board agenda package and the Board may, if desired, take individual action on any item. The report provides the title and synopsis of the RFPs, the budgeted funds available, and the name of the Deputy Executive Officer/Asst. Deputy Executive Officer responsible for that item. Further detail including closing dates, contact information, and detailed proposal criteria will be available online at http://www.aqmd.gov/grants-bids following Board approval on September 7, 2018.

Outreach
In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFPs and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin.

Additionally, potential bidders may be notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFPs will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (http://www.aqmd.gov) where it can be viewed by making the selection "Grants & Bids."

Proposal Evaluation
Proposals received will be evaluated by applicable diverse panels of technically-qualified individuals familiar with the subject matter of the project or equipment and may include outside public sector, academic or community expertise.

Attachment
Report of RFPs Scheduled for Release in September 2018

September 7, 2018 Board Meeting
Report of RFPs Scheduled for Release on September 7, 2018

(For detailed information visit SCAQMD's website at http://www.aqmd.gov/nav/grants-bids following Board approval on September 7, 2018)

STANDARDIZED SERVICES

RFP #P2019-01	Issue RFP for Janitorial Services The current SCAQMD janitorial services contract expires on February 28, 2019. This action is to issue an RFP to solicit bids from firms interested in providing this service to SCAQMD for the next three-year period, from March 1, 2019 through February 28, 2022. Funds for this service are included in the FY 2018-19 Budget and will be requested for each year of the remaining fiscal years of the contract.	OLVERA/2309
RFP#P2019-05	Issue RFP to Audit AB 2766 Fee Revenue Recipients for FYs 2015-16 and 2016-17 AB 2766 requires any agency that receives fee revenues subvened to SCAQMD from the Department of Motor Vehicles to be audited once every two years. This action is to issue an RFP for an independent Certified Public Accountant to conduct the audits for FYs 2015-16 and 2016-17. Funds for this expense are included in the FY 2018-19 Budget.	JAIN/2804

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 17

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights SCAQMD rulemaking activities and public workshops potentially scheduled for 2018.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PMF:SN:AF:EG

2018 MASTER CALENDAR

The table that follows summarizes changes to the schedule since last month's Rule and Control Measure Forecast Report. A number of rule projects have been moved to a later 2018 public hearing date or to 2019. Over the past six months, decisions to delay certain rule projects at committee meetings, the set hearing, or public hearing have impacted the rulemaking calendar. These delays not only affect specific rule projects, but other rule projects that are handled by the same rule team. Furthermore, the complexity of the RECLAIM transition has led to delays to allow staff additional time to work with stakeholders. The hiring effort for rule development teams will help to minimize delaying rule projects in the future. However, it takes several months to train staff on the procedures of rule writing before they are fully productive.

Symbols have been added to indicate the following:

* *This rulemaking is a potentially significant hearing.*

+ *This rulemaking will reduce criteria air contaminants and assist toward attainment of ambient air quality standards.*

This rulemaking is part of the transition of RECLAIM to a command-and-control regulatory structure.

1118.1*+#	**Control of Emissions from Non-Refinery Flares**
Proposed Rule 1181.1 has been moved from November 2018 to December 2018 to continue work on the new proposed rule language in response to stakeholders' concerns.	
1135*+# **1100*+#**	**Emissions of Oxides of Nitrogen from Electric Power Generating Facilities** **Implementation Schedule for NOx Facilities**
Proposed Amended Rule 1135 has been moved from October 2018 to November 2018 to complete the CEQA analysis. Proposed Rule 1100 has been removed from October 2018. The proposed rule includes the implementation schedule for RECLAIM sources that are transitioning to a command and control regulatory structure. Proposed Amended Rule 1135 will incorporate the implementation schedule for electricity generating facilities that are transitioning from RECLAIM, so PR 1100 is not needed to accompany PAR 1135.	

2018 MASTER CALENDAR

October	Title and Description	Type of Rulemaking
2001*+# 2002#*	**RECLAIM – Applicability** **RECLAIM – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx)** Proposed Amended Rules 2001 and 2002 will incorporate provisions for facilities that elect to opt-out of RECLAIM and include provisions for facilities that exit RECLAIM through use of a compliance plan. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
November		
1407.1*	**Control of Emissions of Toxic Air Contaminants from Chromium Alloy Melting Operations** Proposed Rule 1407.1 will require emissions testing and submittal of data to better quantify air toxic emissions. *Michael Morris 909.396.3282 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1135*+#	**Emissions of Oxides of Nitrogen from Electric Power Generating Facilities** Proposed Amended Rule 1135 will incorporate requirements for electric power generating facilities that are to transition from NOx RECLAIM to command-and-control. *Michael Morris 909.396.3282 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
December		
1146 1146.1 1146.2*+# 1100*+#	**Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters** **Emissions of Oxides of Nitrogen from Small Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters** **Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters** Amendments to Rules 1146, 1146.1, and 1146.2 will incorporate requirements for facilities that are in RECLAIM that are required to meet BARCT emission control levels. **Implementation Schedule for NOx Facilities** Rule 1100 will establish the implementation schedule for specific NOx RECLAIM facilities that are transitioning to command-and-control. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP

2018 MASTER CALENDAR

December *(continued)*	Title and Description	Type of Rulemaking
1118.1*+#	**Control of Emissions from Non-Refinery Flares** Proposed Rule 1118.1 will seek to reduce emissions from flaring at non-refinery facilities, including alternate uses of gases. The proposed rule will require use of flares that meet a specific emission standard at sources such as landfills, wastewater treatment plants, and oil and gas production facilities. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1403	**Asbestos Emissions from Demolition/Renovation Activities** Amendments to Rule 1403 will include specific requirements when conducting asbestos-emitting demolition/renovation activities at schools, daycare centers, and possibly establishments that have sensitive populations. Amendments may include other provisions to improve the implementation of the rule. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1407*	**Control of Emissions of Arsenic, Cadmium and Nickel from Non-Chromium Alloy Melting Operations** Proposed Rule 1407 will establish additional requirements to minimize toxic air contaminant emissions from metal operations. *Michael Morris 909.396.3282 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1410*	**Hydrogen Fluoride Use at Refineries** Proposed Rule 1410 will establish requirements for use of hydrogen fluoride at refineries. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1480*	**Air Toxic Metals Monitoring** Proposed Rule 1480 will establish provisions for when ambient monitoring is required and the toxic air contaminants that will be monitored. *Jillian Wong 909.396.3176 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics

RULES MOVED FROM 2018 TO 2019
MASTER CALENDAR

2019	Title and Description	Type of Rulemaking
Reg. IX Reg. X	**Standards of Performance for New Stationary Sources (NSPS)** **National Emission Standards for Hazardous Air Pollutants (NESHAPS)** Amendments to Regulations IX and X are periodically made to incorporate by reference new or amended federal standards that have been enacted by U.S. EPA for stationary sources. Regulations IX and X provide stationary sources with a single point of reference for determining which federal and local requirements apply to their specific operations. *Carol Gomez 909.396.3264 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1109.1*+#	**Refinery Equipment** Proposed Rule 1109.1 will establish requirements for refineries that are transitioning from RECLAIM to command-and-control. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1110.2*+# 1100*+#	**Emissions from Stationary Internal Combustion Engines** Rule 1110.2 will be amended to incorporate provisions for facilities that are transitioning from NOx RECLAIM to command-and-control. **Implementation Schedule for NOx Facilities** Rule 1100 will establish the implementation schedule for specific NOx RECLAIM facilities that are transitioning to command-and-control. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1134*+# 1100*+#	**Emissions of Oxides of Nitrogen from Stationary Gas Turbines** Proposed Amended Rule 1134 will update the emission standard to incorporate Best Available Retrofit Control Technology and incorporate provisions for facilities that are transitioning from NOx RECLAIM to command-and-control. **Implementation Schedule for NOx Facilities** Rule 1100 will establish the implementation schedule for specific NOx RECLAIM facilities that are transitioning to command-and-control. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
Reg. XIII*#	**New Source Review** Amendments to Regulation XIII are needed to address New Source Review provisions for facilities that exit RECLAIM. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other

RULES MOVED FROM 2018 TO 2019
MASTER CALENDAR

2019 ***(Continued)***	**Title and Description**	**Type of Rulemaking**
2202	**On-Road Motor Vehicle Mitigation Options** Proposed amendments to Rule 2202 would enhance emission reductions obtained from the Employee Commute Reduction Program (ECRP) rule option. *Carol Gomez 909.396.3264 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1435*	**Control of Emissions from Metal Heat Treating Processes** Proposed Rule 1435 would establish requirements to reduce hexavalent chromium emissions from heat treating processes. *Jillian Wong 909.396.3176 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
Reg. XVI	**Mobile Source Offset Programs** Amendments to various Regulation XVI rules will be proposed to provide greater opportunity to reduce mobile source emissions and to obtain credit in the State Implementation Plan for these reductions where possible, including addressing the recent U.S. EPA proposed disapproval of Rule 1610. *Zorik Pirveysian 909.396.2431 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other

2018 MASTER CALENDAR
2018 To-Be-Determined

To-Be-Determined	Title and Description	Type of Rulemaking
102	**Definition of Terms** Staff may propose amendments to Rule 102 to add or revise definitions in order to support amendments to other Regulation XI rules. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
120	**Credible Evidence Rule** Proposed Rule 120 will allow any credible evidence to be used for the purpose of establishing that a person has violated or is in violation of any plan, order, permit, rule, regulation, or law. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
113*#	**Monitoring, Reporting, and Recordkeeping (MRR) Requirements for NOx and SOx Sources** Proposed Rule 113 will establish MRR requirements for facilities exiting RECLAIM and transitioning to a command-and-control regulatory structure. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
218	**Continuous Emission Monitoring** Amendments to Rule 218 may be needed for facilities exiting RECLAIM and transitioning to a command-and-control regulatory structure. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
218.1	**Continuous Emission Monitoring Performance Specifications** Amendments to Rule 218.1 may be needed for facilities exiting RECLAIM and transitioning to a command-and-control regulatory structure. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
223+	**Emission Reduction Permits for Large Confined Animal Facilities** Proposed Amended Rule 223 will seek additional emission reductions from large confined animal facilities by lowering the applicability threshold. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
224+	**Incentives for Super-Compliant Technologies** Proposed Rule 224 will outline strategies and requirements to incentivize the development, establishment and use of super-compliant technologies. It may be considered as a part of Rule 219 amendments or proposed as a separate incentive rule. *Zorik Pirveysian 909.396.3421 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other

2018 MASTER CALENDAR
2018 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
416*	**Odors from Kitchen Grease Processing** Proposed Rule 416 will reduce ambient odors created during kitchen grease processing operations. The proposed rule will establish best management practices, and examine enclosure requirements for wastewater treatment operations and filter cake storage. The proposed rule may also contain requirements for an Odor Mitigation Plan. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
429*+#	**Start-Up and Shutdown Exemption Provisions for Oxides of Nitrogen** It may be necessary to amend Rule 429 to address start-up/shutdown provisions related to the transition of NOx RECLAIM to a command-and-control regulatory program and if U.S. EPA requires updates to such provisions. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
430*	**Breakdown Provisions** This rule will be amended or replaced to address specific issues raised by U.S. EPA regarding start-ups or shutdowns associated with breakdowns. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1106 1106.1*+	**Marine Coating Operations** **Pleasure Craft Coating Operations** Rule 1106.1 is proposed to be rescinded; Rule 1106 would subsume the requirements of Rule 1106.1, revise VOC content limits for several categories in order to align limits with U.S. EPA Control Techniques Guidelines and other California air districts, and add new categories for several categories. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1107+	**Coating of Metal Parts and Products** Potential amendments to Rule 1107 would further reduce VOC emissions and improve rule clarity and enforceability. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1109*+#	**Emissions of Oxides of Nitrogen from Boilers and Process Heaters in Petroleum Refineries** Amendments to Rule 1109 may be needed to establish BARCT emission limits for refineries that are exiting RECLAIM and subject to command-and-control rules. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP

2018 MASTER CALENDAR
2018 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1111.1[+]	**Reduction of NOx Emissions from Natural Gas Fired Commercial Furnaces** Proposed Rule 1111.1 will establish equipment-specific NOx emission limits and other requirements for the operation of commercial space heaters. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1113[+]	**Architectural Coatings** Pursuant to guidance from the Stationary Source Committee, staff will amend to remove the tBAc exemption and is evaluating the impact from removing pCBtF as a VOC exempt compound. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1117*[+#]	**Glass Melting Furnaces** Proposed amendments will control NOx emissions from glass melting furnaces. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1123*[+]	**Refinery Process Turnarounds** Proposed amendments will establish procedures that better quantify emission impacts from start-up, shutdown or turnaround activities. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1136*[+]	**Wood Products Coatings** Amendments may be proposed to existing rule limits and other provisions. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1450*[+]	**Control of Methylene Chloride Emissions** The proposed rule would reduce exposure to methylene chloride from furniture stripping, remove potential regulatory loopholes, achieve emission reductions where possible and cost effective, include reporting requirements, and improve consistency with other SCAQMD VOC rules. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1142*	**Marine Tank Vessel Operations** Proposed revisions to Rule 1142 would address VOC emissions from marine tank vessel operations and provide clarifications. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1147.1*[+#]	**Large Miscellaneous Combustion** Rule 1147.1 will include large miscellaneous combustion sources currently at RECLAIM facilities. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other

2018 MASTER CALENDAR
2018 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1147.2*+#	**Metal Melting and Heat Treating Furnaces** Proposed Rule 1147.2 will reduce NOx emissions from metal melting and heat treating furnaces. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1147.3*+#	**Emission Reductions for Equipment at Aggregate Facilities** Proposed Rule 1147.3 will reduce NOx emissions from aggregate operations. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1148.1 1148.2	**Oil and Gas Production Wells** **Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers** Amendments to Rule 1148.2 may be needed to address community notification procedures, the inclusion of water injection wells, and potentially other measures based on an evaluation of information collected since the last rule adoption. *Jillian Wong 909.396.3176 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1148.3*	**Requirements for Natural Gas Underground Storage Facilities** Proposed Rule 1148.3 will establish requirements to address public nuisance and VOC emissions from underground natural gas storage facilities. *Jillian Wong 909.396.3176 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1150.1	**Control of Gaseous Emissions from Municipal Solid Waste Landfills** Proposed amendments will address U.S. EPA revisions to the New Source Performance Standards for Municipal Solid Waste Landfills and Existing Guidelines and Compliance Timelines for Municipal Solid Waste Landfills, as well as CARB GHG requirements. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1151*+	**Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations** Pursuant to guidance from the Stationary Source Committee, staff will amend to remove the tBAc exemption and is evaluating the impact from removing pCBtF as a VOC exempt compound. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1153.1*+	**Emissions of Oxides of Nitrogen from Commercial Food Ovens** Rule 1153.1 was adopted in November 2014 and established NOx emission limits for various types of existing commercial food ovens on a specified compliance schedule. Amendments may be necessary to address applicability and technological feasibility of low-NOx burner technologies for new commercial food ovens. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other

2018 MASTER CALENDAR
2018 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1159.1*+#	**Nitric Acid Units - Oxides of Nitrogen** Proposed Rule 1159.1 will address NOx emissions from processes using nitric acid and is needed as part of the transition of RECLAIM to command-and-control. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1173+	**Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants** Proposed revisions to Rule 1173 are being considered based on recent U.S. EPA regulations and CARB oil and gas regulations. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1177+	**Liquefied Petroleum Gas Transfer and Dispensing** Potential amendments may be proposed to include additional sources of emissions from the dispensing and transfer of LPG. *Michael Krause 909.396.2706 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1188+	**VOC Reductions from Vacuum Trucks** The proposed rule will establish VOC emission standards and other requirements associated with the operation of vacuum trucks not covered by Rule 1149 – Storage Tank and Pipeline Cleaning and Degassing. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
1190, 1191, 1192, 1193, 1194,1195, 1196, & 1186.1*+	**Fleet Vehicle Requirements** Amendments to fleet rules may be necessary to improve rule implementation. In addition, the current fleet rules may be expanded to achieve additional air quality and air toxic emission reductions. *Zorik Pirveysian 909.396.2431 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1304.2* 1304.3*	**California Public Utilities Commission Regulated Electrical Local Publicly Owned Electrical Utility Fee for Use of SOx, PM10 and NOx Offsets** **Local Publicly Owned Electrical Generating Facility Fee for Use of SOx, PM10 and NOx Offsets** Proposed Rules 1304.2 and 1304.3 would allow new greenfield facilities and additions to existing electricity generating facilities (EGFs) conditional access to SCAQMD internal offset accounts for a fee, for subsequent funding of qualifying improvement projects consistent with the AQMP. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other Other

2018 MASTER CALENDAR
2018 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1415 1415.1	**Reduction of Refrigerant Emissions from Stationary Air Conditioning Systems** **Reduction of Refrigerant Emissions from Stationary Refrigeration Systems** Amendments will align with proposed CARB Refrigerant Management Program and U.S. EPA's Significant New Alternatives Policy Rule provisions relative to prohibitions on specific hydrofluorocarbons (HFCs). *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1426*	**Emissions from Metal Finishing Operations** Proposed amendments to Rule 1426 will establish requirements to reduce nickel, cadmium and other air toxics from plating operations. *Jillian Wong 909.396.3176 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1430	**Control of Emissions from Metal Grinding Operations at Metal Forging Facilities** Proposed amendments to Rule 1430 may be needed related to reducing emissions from metal forging operations. *Jillian Wong 909.396.3176 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1445*	**Control of Toxic Emissions from Laser Arc Cutting** Proposed Rule 1445 will establish requirements to reduce toxic metal particulate emissions from laser arc cutting. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1469.1*	**Spraying Operations Using Coatings Containing Chromium** Proposed Amended Rule 1469.1 would establish additional requirements for facilities that are conducting spraying using chromium coatings to further reduce hexavalent chromium emissions. *Jillian Wong 909.396.3176 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
1470*	**Requirement for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines at Sensitive Receptors** The proposal would address new and existing small (≤ 50 brake horsepower) diesel engines located near sensitive receptors. Staff is also considering amendments to minimize use of stationary diesel back-up engines that may include use of alternative power sources that are less polluting. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Toxics
1902	**Transportation Conformity** Amendments to Rule 1902 may be necessary to align the rule with current U.S. EPA requirements. *Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other

2018 MASTER CALENDAR
2018 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1905	**Pollution Controls for Automotive Tunnel Vents** This proposed rule would address emissions from proposed roadway tunnel projects that could have air quality impacts. *Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
Reg. XVII	**Prevention of Significant Deterioration (PSD)** Proposed amendments to Regulation XVII will align the SCAQMD's Prevention of Significant Deterioration program with federal requirements. *David De Boer 909.396.2329 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other
Reg. XX*+#	**RECLAIM** Amendments to rules within Regulation XX will be needed as facilities transition from RECLAIM to a command-and-control regulatory structure. *Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
Reg. XXIII	**Facility Based Mobile Sources** Regulation XXIII would contain rules related to reducing emissions from mobile sources that visit certain types of facilities. Facility types could include commercial airports, marine ports, rail yards, warehouses, and new and development projects. Regulation XXIII may include other sources as identified in the 2016 AQMP. *Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
Reg. XXV	**Intercredit Trading** Regulation XXV will contain rules to allow generation of criteria pollutant Mobile Source Emission Reduction Credits (MSERCs) from various on-road and off-road sources, such as on-road heavy-duty trucks, off-road equipment, locomotives, and marine vessels. Credits will be generated by retrofitting existing engines or replacing the engines with new lower-emitting or zero-emission engines. The 2016 AQMP includes two measures that seek to accelerate early deployment of near-zero and zero emission on-road heavy-duty trucks and off-road equipment, through generation of MSERCs that could be used for purposes of recognizing mobile source emission reductions at facilities covered in the AQMP Facility-Based Measures. *Zorik Pirveysian 909.396.2431 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	AQMP
Reg. XXVII	**Climate Change** Changes may be needed to Regulation XXVII to add or update protocols for GHG reductions, and other changes. *Zorik Pirveysian 909.396.2431 CEQA: Michael Krause 909.396.2706 and Socio: Jillian Wong 909.396.3176*	Other

2018 MASTER CALENDAR
2018 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
Reg. II, IV, XI, XIV, XXX and XXXV, XXIV*+#	Various rule amendments may be needed to meet the requirements of state and federal laws, implement OEHHA's 2015 revised risk assessment guidance, address variance issues/ technology-forcing limits, to abate a substantial endangerment to public health or welfare, address odor nuisance issues, air toxics, or to seek additional reductions to meet the SIP short-term measure commitment. The associated rule development or amendments include, but are not limited to, SCAQMD existing rules, and new or amended rules to implement the 2012 or 2016 AQMP measures. This includes measures in the 2010 Clean Communities Plan (CCP) or 2016 AQMP to reduce toxic air contaminants or reduce exposure to air toxics from stationary, mobile, and area sources. Rule amendments may include updates to provide consistency with CARB Statewide Air Toxic Control Measures or U.S. EPA's National Emission Standards for Hazardous Air Pollutants. Rule amendments, proposed new source-specific, or industry-specific rules within Regulation XI may be needed to meet the requirements of AB 617 and the 2016 AQMP commitment to transition the RECLAIM program to a command-and-control regulatory structure. Amendments to Regulation XIV may be needed for implementation of AB 617.	Other/AQMP

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 18

REPORT: Status Report on Major Ongoing and Upcoming Projects for Information Management

SYNOPSIS: Information Management is responsible for data systems management services in support of all SCAQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects.

COMMITTEE: Administrative, July 13, 2018; Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

RMM:MAH:OSM:agg

Background
Information Management (IM) provides a wide range of information systems and services in support of all SCAQMD operations. IM's primary goal is to provide automated tools and systems to implement Board-approved rules and regulations, and to improve internal efficiencies. The annual Budget specifies projects planned during the fiscal year to develop, acquire, enhance, or maintain mission-critical information systems.

Summary of Report
The attached report identifies each of the major projects/contracts or purchases that are ongoing or expected to be initiated within the next six months. Information provided for each project includes a brief project description and the schedule associated with known major milestones (issue RFP/RFQ, execute contract, etc.).

Attachment
Information Management Status Report on Major Ongoing and Upcoming Projects During the Next Six Months

ATTACHMENT
September 7, 2018 Board Meeting
Information Management Status Report on Major Ongoing and Upcoming Projects During the Next Six Months

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Implementation of Enterprise Geographic Information System (EGIS)	Continue to support accomplishment of the agency's mission through the effective and cost-efficient implementation of EGIS and related technologies		• Purchased ESRI extensions for OnBase	• Complete the six prioritized EGIS projects: o GIS Data Development o Portal / Mobile Development o OnBase Expansion and GIS Integration o CLASS GIS Integration o One-click Site Report o System Documentation
Telecommunications Services	Select vendor(s) to provide local, long distance, telemetry, internet, cellular services, and phone system maintenance for a three-year period	$850,000		• Release RFP October 5, 2018 • Request Board Approval January 4, 2019 • Execute contract(s) January 31, 2019
CLASS Database Software Licensing and Support	Purchase Actian Ingres database software licensing, support and maintenance for the CLASS system for a one-year period (November 30, 2018 through November 30, 2019)	$225,341		• Request Board Approval September 7, 2018 • Execute contract November 30, 2018

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Office 365 Implementation	Acquire and implement Office 365 for SCAQMD staff	$350,000	Pre-assessment evaluation and planning	• Request Board Approval and funding October 5, 2018 • Acquire Office 365 licenses • Develop implementation and migration plan • Implement Office 365 email (Exchange) and migrate all users • Implement Office 365 file storage (OneDrive for Business) and migrate users • Implement Office 365 internal website (SharePoint) and migrate existing content
Permitting System Automation Phase 1	New Web application to automate the filing of all permit applications with immediate processing and issuance of permits for specific application types: Dry Cleaners, Gas Stations and Automotive Spray Booths	$694,705	• Phase 1 Automated filing for form 400A, Dry Cleaner, Spray Booth and Gas Station modules deployed to production • Facility ID Creation Module deployed to production	• Upgraded GIS Map integration work • Phase 1 project outreach support

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permitting System Automation Phase 2	Enhanced Web application to automate permit application process for Registration Equipment, IC Engines, and Vapor Recovery systems; and implement electronic permit folder and workflow for internal SCAQMD users	$525,000	• December 2017 board action approving initial Phase 2 funding • May 2018 Phase 2 project startup and detail planning • Business process model approval	• October Board action to seek remaining Phase 2 funding • Wire frame and user story development
Air Quality Index Rewrite and Migration	Develop new Web Service and/or Web Application Program Interface to migrate Air Quality Index function from FORTRAN computer to STA data management system	$83,700	• AQI Calculation Web Service and Hourly Update development modified and enhanced to support AQ Sensors • Development work and initial acceptance testing completed • Acceptance testing completed and application moved to production	• Post production monitoring and validation
Information Technology Review Implementation	Complete Board requested Information Technology review and initiate work on implementation of key recommendations	$75,000	• Initiated Implementation Planning and Resource Requirements for key recommendations • Completed Steering Committee charter and agenda • Conducted recruitment process to fill Systems & Programming Supervisor position • Scheduled and completed Microsoft Project Plan training for all IM Managers, Supervisors and Secretaries • Established Information Technology Steering Committee (ITSC), members and charter	• Office 365 Deployment planning • Configuration and deployment of Project Management software for IM team

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permit Application Status and Dashboard Statistics	New Web application to allow engineers to update intermediate status of applications; create dashboard display of status summary with link to FIND for external user review	$100,000	• December 2017 board letter funding approval • April 2018 project startup and detail planning • June 2018 Wireframe and user story approval	• Code development for Release 1
Agenda Tracking System Replacement	Replace aging custom agenda tracking system with state-of-the-art, cost-effective Enterprise Content Management (ECM) system, which is fully integrated with OnBase, SCAQMD's agency-wide ECM system	$86,600	• Released RFP December 4, 2015 • Awarded contract April 1, 2016 • Continued parallel testing • Conducted survey of stakeholder satisfaction • As a result of the survey responses, the decision was made to develop a custom user interface for the application.	• Revise project scope to include custom user interface • Develop plan and schedule for revised scope
Replace Your Ride (RYR)	New Web application to allow residents to apply for incentives to purchase newer, less polluting vehicles	$211,820	• Phase 2 Fund Allocation, Administration and Management Reporting modules deployed and in production	• Phase 3 collaboration with air districts for possible statewide RYR implementation
SCAQMD Mobile Application for Apple and Android phones	New mobile application to provide air quality and SCAQMD notification and event information	$126,010	• July board letter funding approval • Wire frame approval	• Detail design • Unit test case development
FIND System Replacement	Update and replace Facility Information Detail (FIND) application	$148,150	• Task order issued, evaluated and awarded • Detail project planning in progress • Wire frame approval	• Detail design • Unit test case development

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Legal Division New System Development	Develop new web-based case management system for Legal Division to replace existing JWorks System	$500,000	• Task order issuance, evaluation and award	• Project startup and detail planning phase
Document Conversion Services	Document Conversion Services to convert paper documents stored at SCAQMD facilities to electronic storage in OnBase	$82,000		• Release RFQ October 5, 2018 • Approve qualified vendors January 4, 2019

Shaded Projects – Projects completed and will be removed from this list on subsequent reports

Completed Projects	
Project	Date Completed
CLASS Database Software Licensing and Support	November 30, 2017
Website & Evaluation Improvements	January 6, 2018
Information Technology Review	January 31, 2018
Prequalify Vendor List for PCs, Network Hardware, etc.	February 3, 2018
Renewal of HP Server Maintenance & Support	April 6, 2018
Implementation of Enterprise Geographic Information System (EGIS)	May 30, 2018
Fiber Cable Network Infrastructure Upgrade	May 30, 2018

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 19

REPORT: FY 2017-18 Contract Activity

SYNOPSIS: This report lists the number of contracts let during FY 2017-18, the respective dollar amounts, award type, and the authorized contract signatory for the SCAQMD. This report includes the data provided in the March 2018 report covering contract activity for the first six months of FY 2017-18.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

SJ:DH:EA:av

Background

The Board's Procurement Policy and Procedures requires staff to provide semi-annual reports to the Board on contract activity. This report is for the full Fiscal Year and includes the data provided in the March 2018 report covering contract activity for the first six months of FY 2017-18. The report identifies five categories of contract awards: 1) New Awards – new contracts for professional services and research projects; 2) Other – air monitoring station leases, Board Assistant agreements, or miscellaneous lease agreements that generate revenue, e.g., lease of SCAQMD space; 3) Sponsorships – contracts funding public events and technical conferences which provide air quality related benefits; 4) Modifications – amendments to existing contracts usually reflecting changes in the project scope and/or schedule; 5) Terminated Contracts – Partial/No Work Performed – modifications to contracts to reflect termination of a portion or all of the work which result in de-obligation of contract funding. The report further specifies under New Awards, which contracts were awarded competitively and which were awarded on a sole-source basis. Within the first four categories, the level of approval (Board or Executive Officer) is indicated.

Summary
The total value of all contracts and contract modifications for this period (FY 2017-18) was $167,826,163.52, with 255 contracts and contract modifications totaling $164,693,627.44 (98%) approved by the Board and 294 contracts and contract modifications totaling $3,132,536.08 (2%) approved by the Executive Officer. This does not include modifications for termination with partial or no work completed, which is addressed below.

Of the 563 contracts and modifications (including terminations) issued during this period, New Awards accounted for 253, Other accounted for 29, Sponsorships accounted for 39, and Modifications accounted for 242 (including terminations). The total value for New Awards was $143,147,235.31. Of that amount, $117,844,894.12 or 82% was awarded through the competitive process. Of the contracts and modifications totaling $3,132,53608 approved by the Executive Officer, Board Member Assistant contracts, as approved by the Board's Administrative Committee, totaled $913,499.21 representing 24 contracts and contract modifications; $1,103,431.97 representing 49 contracts was sole sourced in the areas of technical consulting ($764,497.08), venue related services to support clean air and outreach events, ($175,476.81), miscellaneous services including the lease of alternative fuel vehicles ($84,808.08) and litigation/legal services ($78,650.00); $309,785.00 representing 39 contracts was for sponsorships in advanced technologies and community and business outreach; and $636,120.90 representing 173 contracts was for contract modifications for extensions of time or additional budgeted services from previously approved vendors. Contract terminations with partial or no work completed numbered 14 during this period and de-obligated a total of $1,825,950.18.

CONTRACT CATEGORY	NUMBER	AMOUNT
NEW AWARDS	253	$143,147,235.31
OTHER	29	$928,875.21
SPONSORSHIPS	39	$309,785.00
MODIFICATIONS	228	$23,440,268.00
TERMINATIONS	14	-$1,825,950.18

Attachment
Contract Activity Report for the period July 1, 2017 through June 30, 2018.

South Coast Air Quality Management District
Contract Activity Report
July 1, 2017 - June 30, 2018

DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
I. NEW AWARDS							
Competitive - Board Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15631	32	REPOWER 2 MAIN & 1 AUXILIARY ENGINE ON MARINE VESSEL - OPERATION ONLY	LMB SPORTFISHING	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17111	32	REPOWER 1 MAIN ENGINE IN A MARINE VESSEL	CRAIG JACOBS	$87,818.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17116	32	REPOWER 1 AUXILIARY ENGINE IN 1 MARINE VESSEL	SUNDIVER INTERNATIONAL, INC.	$11,823.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17156	32	REPOWER TWO MAIN ENGINES OF A MARINE VESSEL	NEIL SPLONSKOWSKI	$286,450.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17187	32	REPOWER ONE MAIN AND ONE AUXILIARY ENGINES OF A MARINE VESSEL	LOC DUY PHAM	$152,150.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17206	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	GENE RHEINGANS	$364,927.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17235	32	REPLACE 1 OFF-ROAD AGRICULTURAL EQUIPMENT	TRIPLE B FARMS, INC	$272,750.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17302	32	REPLACEMENT OF 1 AND REPOWER OF 2 OFF-ROAD EQUIPMENT	EARTH TEK ENGINEERING CORP.	$261,654.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17307	32	REPOWER ONE ENGINE OF A MARINE VESSEL	DANIEL MELLO	$56,048.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17321	32	REPOWER ONE MAIN ENGINE OF A MARINE VESSEL	MICHAEL M MARTIN	$106,250.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17326	81	PROP 1B TRUCK REPLACEMENT PROGRAM	KEEP ON TRUCKING LLC	$300,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17329	32	REPOWER OF ONE OFF-ROAD EQUIPMENT	TONY R CRISALLI, INC	$104,197.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17332	32	REPLACEMENT OF ONE OFF-ROAD AGRICULTURAL EQUIPMENT	FRANK FIERRO	$131,360.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17333	32	REPLACEMENT OF ONE OFF-ROAD AGRICULTURAL EQUIPMENT	JOSE RAMIREZ	$283,592.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17337	27	LOW-EMISSION LEAF BLOWER EXCHANGE PROGRAM 2017	BLACK & DECKER (US) INC	$147,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17338	27	LOW-EMISSION LEAF BLOWER EXCHANGE PROGRAM	PACIFIC STIHL	$416,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17362	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ANTHONY H. OSTERKAMP JR.	$3,420,000.00	

South Coast Air Quality Management District
Contract Activity Report
July 1, 2017 - June 30, 2018

DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17368	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CR&R INCORPORATED	$2,450,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17371	81	PROP 1B TRUCK REPLACEMENT PROGRAM	INLINE DISTRIBUTING CO	$760,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17372	15	AB2588 CONSULTANT ASSISTANCE	ALTA ENVIRONMENTAL LP	$85,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17373	15	AB2588 CONSULTANT ASSISTANCE	ENVIRONMENTAL SCIENCE ASSOCIATES	$85,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17374	15	AB2588 CONSULTANT ASSISTANCE	INTEGRA ENVIRONMENTAL CONSULTING, INC.	$75,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17375	15	AB2588 CONSULTANT ASSISTANCE	DAVENPORT ENGINEERING, INC.	$85,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17376	15	AB2588 CONSULTANT ASSISTANCE	TRINITY CONSULTANTS, INC	$85,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17377	15	AB2588 CONSULTANT ASSISTANCE	YORKE ENGINEERING, LLC	$85,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17379	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FRESH LINK LOGISTICS LLC	$140,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17381	81	PROP 1B TRUCK REPLACEMENT PROGRAM	GT CARRIERS, INC	$65,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17382	81	PROP 1B TRUCK REPLACEMENT PROGRAM	WAYNE PERRY INC	$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17384	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CROWN XPRESS TRANSPORT	$130,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17393	31	DEVELOPMENT OF AN ULTRA-LOW EMISSION DIESEL ENGINE FOR ON-ROAD HEAVY-DUTY VEHICLES	SOUTHWEST RESEARCH INSTITUTE	$575,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17403	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FENCECORP, INC.	$800,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17404	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FENCE WORKS INC.	$280,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18019	31	TECHNICAL ASSISTANCE WITH HEAVY-DUTY VEHICLE EMISSION TESTING, ANALYSES AND ENGINE DEVELOPMENT AND APPLICATIONS	RICARDO INC	$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18020	81	PROP 1B TRUCK REPLACEMENT PROGRAM	UNITED PARCEL SERVICE, INC	$14,900,000.00	

South Coast Air Quality Management District
Contract Activity Report
July 1, 2017 - June 30, 2018

DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
17	CLERK OF THE BOARD	C18024	01	LEGAL REPRESENTATION FOR THE HEARING BOARD	STRUMWASSER & WOOCHER LLP	$45,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18033	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ROBERTSON'S READY MIX	$9,300,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18037	81	PROP 1B TRUCK REPLACEMENT PROGRAM - OPERATION ONLY	FLOUR TRANSPORT INC	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18041	59	VIP PROGRAM APPROVED DISMANTLER	JAPANESE UNIQUE TRUCKS	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18042	59	VIP PROGRAM APPROVED DEALERSHIP	PORTSIDE USED TRUCK SALES INC	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18043	32	REPOWER 1 MAIN & 1 AUXILIARY ENGINE OF MARINE VESSEL - OPERATION ONLY	SEAWAVE CORPORATION	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18068	32	REPOWER 1 ENGINE OF MARINE VESSEL - OPERATION ONLY	ERIC F SMITH	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18070	81	PROP 1B TRUCK REPLACEMENT PROGRAM	SUPERIOR READY MIX CONCRETE, L.P.	$15,300,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18071	81	PROP 1B TRUCK REPLACEMENT PROGRAM	OVERSEAS FREIGHT, INC.	$2,300,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18074	32	REPOWER OF 1 MAIN ENGINE OF MARINE VESSEL - OPERATION ONLY	GIACOMO F. DAMATO	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18080	81	PROP 1B TRUCK REPLACEMENT PROGRAM	SPRAGUES' ROCK AND SAND CO.	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18081	81	PROP 1B CARGO HANDLING EQUIPMENT REPLACEMENT PROJECTS	DARGUS LEASING CORP.	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18083	81	PROP 1B CARGO HANDLING EQUIPMENT REPLACEMENT PROJECTS	WM. BOLTHOUSE FARMS, INC	$345,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18085	01	INSURANCE BROKERAGE SERVICES	ALLIANT INSURANCE SERVICES INC	$149,950.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18091	81	PROP 1B TRU REPLACEMENT AND INFRASTRUCTUE PROJECTS	GELSON'S MARKETS	$587,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18093	81	PROP 1B INFRASTRUCTUE PROJECT	GRIMMWAY ENTERPRISES, INC	$264,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18094	81	PROP 1B TRU REPLACEMENT AND INFRASTRUCTUE PROJECTS	D & D WHOLESALE DISTRIBUTORS INC	$302,579.20	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18096	81	PROP 1B TRU REPLACEMENT AND INFRASTRUCTUE PROJECTS	TRIPLE B CORPORATION	$186,000.00	

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08	LEGAL	C18104	01	PROVIDE EMPLOYMENT AND LABOR LAW SERVICES	FISHER & PHILLIPS, LLP	$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18112	32	REPOWER 2 MAIN ENGINES ON MARINE VESSEL - OPERATION ONLY	PACIFIC TUGBOAT SERVICES	$0.00	1
08	LEGAL	C18114	01	PROVIDE ENVIRONMENTAL LAW SERVICES	WOODRUFF SPRADLIN & SMART	$175,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C18115	68	CITY OF TORRANCE COMMUNITY AIR MONITORING NETWORK	CITY OF TORRANCE	$406,420.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18116	81	PROP 1B TRUCK REPLACEMENT PROGRAM	TOTAL TERMINALS INTERNATIONAL, LLC	$1,445,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18117	81	PROP 1B TRU REPLACEMENT PROJECT	AAKAR INC	$150,000.00	
47	SCIENCE & TECHNOLOGY ADVANCEMENT	C18119	01	UPGRADE OF THE LABORATORY ENVIRONMENTAL CONTROL ROOM FOR FILTER WEIGHING	WILLDAN LIGHTING & ELECTRIC OF CALIFORNIA	$140,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18124	81	PROP 1B TRUCK REPLACEMENT PROGRAM	AJR TRUCKING, INC.	$4,000,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18137	01	SACRAMENTO LEGISLTATIVE REPRESENTATION	THE QUINTANA CRUZ COMPANY LLC	$103,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18138	01	SACRAMENTO LEGISLATIVE REPRESENTATION	CALIFORNIA ADVISORS LLC	$103,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18139	01	SACRAMENTO LEGISLATIVE REPRESENTATION	JOE A GONSALVES & SON	$143,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18153	81	PROP 1B INFRASTRUCTURE PROJECT	CHANNEL ISLANDS LOGISTICS, INC	$705,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18159	46	APPLICATION OF NEXT GENERATION AIR MONITORING METHODS TO IDENTIFY AND CHARACTERIZE SOURCES OF HEXAVALENT CHROMIUM AND OTHER AIR TOXIC METALS	AERODYNE RESEARCH, INC	$240,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18161	46	APPLICATION OF NEXT GENERATION AIR MONITORING METHODS TO IDENTIFY AND CHARACTERIZE SOURCES OF HEXAVALENT CHROMIUM AND OTHER AIR TOXIC METALS	DESERT RESEARCH INSTITUTE	$190,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18166	81	PROP 1B TRUCK REPLACEMENT PROGRAM	DIEGO ANDRES GRACIA	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18167	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CITY LOGISTICS & TRANSPORT, INC.	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18169	81	PROP 1B TRUCK REPLACEMENT PROGRAM AND INFRASTRUCTURE PROJECT	CALIFORNIA CARTAGE WCA, LLC	$2,300,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18170	81	PROP 1B TRUCK REPLACEMENT PROGRAM	LA HARDWOOD FLOORING INC	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18171	81	PROP 1B TRUCK REPLACEMENT PROGRAM	SOUTHBAY TRANSPORT, INC.	$1,800,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18172	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ATL INTERMODAL	$920,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18173	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ROBERT JUST TRUCKING INC	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18174	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JING YAN LIU	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18175	81	PROP 1B TRUCK REPLACEMENT PROGRAM	BELLAPORT TRANSPORTATION INC	$1,380,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18177	81	PROP 1B TRUCK REPLACEMENT PROGRAM	O'CONNELL LANDSCAPE MAINTENANCE INC	$350,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18179	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ALBERTSON'S LLC	$1,840,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18180	81	PROP 1B TRUCK REPLACEMENT PROGRAM	AFS TRUCKING INC	$1,200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18181	81	PROP 1B TRUCK REPLACEMENT PROGRAM	DESTINATION TRUCKING, INC	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18182	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FOUR SEASONS FRESH TRANSPORT, LLC	$2,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18184	81	PROP 1B TRUCK REPLACEMENT PROGRAM	SPRAGUES' ROCK AND SAND CO.	$800,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18185	81	PROP 1B TRUCK REPLACEMENT PROGRAM	TLH ENTERPRISE TRUCKING INC	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18186	81	PROP 1B TRUCK REPLACEMENT PROGRAM	TOTAL TRANSPORTATION SERVICES, INC	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18187	81	PROP 1B TRUCK REPLACEMENT PROGRAM	BENDER READY MIX, INC	$400,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18188	81	PROP 1B TRUCK REPLACEMENT PROGRAM	J & J DISTRIBUTORS, LLC	$800,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18189	81	PROP 1B TRUCK REPLACEMENT PROGRAM	DIAMOND MATTRESS COMPANY, INC	$250,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18192	81	PROP 1B TRUCK REPLACEMENT PROGRAM	QUIK PICK EXPRESS, LLC	$3,000,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18197	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CHAVEZ TRANSPORT INC	$2,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18198	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JOSE CORONA RAMOS	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18201	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ECOLOGY AUTO PARTS, INC.	$4,700,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18202	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ACTIVE WINDOW PRODUCTS INC	$135,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18203	81	PROP 1B TRUCK REPLACEMENT PROGRAM	V SLON INC	$350,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18207	81	PROP 1B TRUCK REPLACEMENT PROGRAM	INTERNATIONAL EXPORT INC.	$1,200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18210	32	REPOWER TWO DIESEL DUAL-ENGINE SCRAPERS - OPERATION ONLY	SHARMA GENERAL ENGINEERING CONTRACTORS	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18212	81	PROP 1B TRUCK REPLACEMENT PROGRAM	GREEN TRUCKING, LLC	$600,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18214	81	PROP 1B TRUCK REPLACEMENT PROGRAM	SHORELINE LOGISTICS LLC	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18215	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CATTELL TRUCKING, INC	$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18216	81	PROP 1B TRUCK REPLACEMENT PROGRAM	C.S. TRUCKING	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18217	81	PROP 1B TRUCK REPLACMENT PROGRAM	PERFORMANCE TEAM LLC	$3,680,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18218	81	PROP 1B TRUCK REPLACEMENT PROGRAM	HENEAN TRUCKING INC	$800,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18220	81	PROP 1B TRUCK REPLACEMENT PROGRAM	A.T. TRUCKING	$100,000.00	
27	INFORMATION MANAGEMENT	C18224	01	DATA CABLING INFRASTRUCTURE UPGRADE	DIGITAL NETWORKS GROUP, INC.	$311,202.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18236	32	REPOWER 2 MAIN ENGINES ON A MARINE VESSEL - OPERATION ONLY	JOHN COONIS	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18240	56	PROVIDE TECHNICAL ASSISTANCE TO THE ENHANCED FLEET MODERNIZATION PROGRAM	CLEAN FUEL CONNECTION INC	$150,000.00	

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26	PLANNING RULE DEV & AREA SOURCES	C18242	15	AB2588 CONSULTANT ASSISTANCE	CASTLE ENVIRONMENTAL CONSULTING, LLC	$75,000.00	
27	INFORMATION MANAGEMENT	C18247	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	$255,500.00	
26	PLANNING RULE DEV & AREA SOURCES	C18260	27	RULE 1111 CONSUMER REBATE PROGRAM FOR COMPLIANT NATURAL GAS-FIRED FAN-TYPE CENTRAL FURNACES	ELECTRIC & GAS INDUSTRIES ASSOCIATION	$3,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18261	32	REPOWER 2 MAIN ENGINES ON A MARINE VESSEL - OPERATION ONLY	JOHN K. CHRISTIANSON	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18273	32	REPOWER 2 MAIN ENGINES OF A MARINE VESSEL	HOT SPOT CHARTERS	$236,061.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18275	32	REPOWER 4 OFF-ROAD AGRICULTURAL EQUIPMENT	CLEVELAND FARMS, INC.	$339,428.00	
27	INFORMATION MANAGEMENT	C18288	01	SHORT- AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	VARSUN ETECHNOLOGIES GROUP, INC	$451,800.00	
27	INFORMATION MANAGEMENT	C18292	01	SHORT- AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	PRELUDE SYSTEMS, INC.	$15,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C18380	01	LITERATURE REVIEW AND EMPIRICAL STUDY OF RESIDENTIAL VISIBILITY BENEFITS OF CLEAN AIR	INDUSTRIAL ECONOMICS INCORPORATED	$97,218.82	
26	PLANNING RULE DEV & AREA SOURCES	C18381	01	LITERATURE REVIEW OF PUBLIC WELFARE BENEFITS OF CLEAN AIR	INDUSTRIAL ECONOMICS INCORPORATED	$49,289.10	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17298	80	REPLACE 8 CNG TANKS ON SCHOOL BUSES	BELLFLOWER UNIFIED SCHOOL DISTRICT	$160,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17300	80	REPLACE 4 CNG TANKS ON SCHOOL BUSES	MONTEBELLO UNIFIED SCHOOL DISTRICT	$80,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17360	80	REPLACE 7 CNG TANKS ON SCHOOL BUSES	JURUPA UNIFIED SCHOOL DISTRICT	$140,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17361	80	REPLACE 2 CNG TANKS ON SCHOOL BUSES	CHINO VALLEY UNIFIED SCHOOL DISTRICT	$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17365	80	REPLACE 15 CNG TANKS ON SCHOOL BUSES	LOS ANGELES UNIFIED SCHOOL DISTRICT	$300,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18023	80	REPLACE 2 CNG TANKS ON SCHOOL BUSES	FULLERTON JOINT UNION HIGH SCHOOL DIST	$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18044	32	PURCHASE 8 LPG SCHOOL BUSES WITH FIRE SUPPRESANT SYSTEMS	LOS ANGELES UNIFIED SCHOOL DISTRICT	$1,036,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18046	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	ANAHEIM ELEMENTARY SCHOOL DISTRICT	$536,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18047	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	ANAHEIM UNION HIGH SCHOOL DISTRICT	$536,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18050	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	BELLFLOWER UNIFIED SCHOOL DISTRICT	$516,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18051	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	COACHELLA VALLEY UNIFIED SCHOOL DISTRICT	$536,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18052	80	PURCHASE 1 ELECTRIC SCHOOL BUS WITH ASSOCIATED INFRASTRUCTURE	COVINA VALLEY UNIFIED SCHOOL DISTRICT	$268,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18053	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	FONTANA UNIFIED SCHOOL DISTRICT	$516,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18054	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	JURUPA UNIFIED SCHOOL DISTRICT	$516,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18055	80	PURCHASE 1 ELECTRIC SCHOOL BUS WITH ASSOCIATED INFRASTRUCTURE	LOS ANGELES LEADERSHIP PRIMARY ACADEMY	$258,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18056	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	LOS ANGELES UNIFIED SCHOOL DISTRICT	$526,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18057	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	LYNWOOD UNIFIED SCHOOL DISTRICT	$516,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18058	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	MAGNOLIA SCHOOL DISTRICT	$536,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18059	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	MONTEBELLO UNIFIED SCHOOL DISTRICT	$536,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18060	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	MOUNTAIN VIEW SCHOOL DISTRICT	$516,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18061	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	RIALTO UNIFIED SCHOOL DISTRICT	$516,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18062	80	PURCHASE 2 ELECTRIC SCHOOL BUSES WITH ASSOCIATED INFRASTRUCTURE	SAVANNA SCHOOL DISTRICT	$536,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18063	80	PURCHASE 1 ELECTRIC SCHOOL BUS WITH ASSOCIATED INFRASTRUCTURE	TODAY'S FRESH START, INC	$258,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18105	80	REPLACE 3 CNG TANKS ON SCHOOL BUSES	FULLERTON JOINT UNION HIGH SCHOOL DIST	$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18106	80	REPLACE 2 CNG FUEL TANKS ON SCHOOL BUSES	CHINO VALLEY UNIFIED SCHOOL DISTRICT	$40,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18107	80	REPLACE 2 CNG TANKS ON SCHOOL BUSES	GARDEN GROVE UNIFIED SCHOOL DISTRICT	$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18108	80	REPLACE 2 CNG FUEL TANKS ON SCHOOL BUSES	HUNTINGTON BEACH UNION HS DISTRICT	$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18109	80	REPLACE 9 CNG TANKS ON SCHOOL BUSES	PUPIL TRANSPORTATION COOPERATIVE	$180,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18110	80	REPLACE 2 CNG TANKS ON SCHOOL BUSES	ARCADIA UNIFIED SCHOOL DISTRICT	$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G18111	80	REPLACE 3 CNG TANKS ON SCHOOL BUSES	REDLANDS UNIFIED SCHOOL DISTRICT	$60,000.00	
44	MSRC	ML14060	23	INSTALLATION OF EV CHARGING STATIONS	COUNTY OF LOS ANGELES	$104,400.00	
44	MSRC	ML16077	23	IMPLEMENT PEDESTRIAN IMPROVEMENTS AND BIKE SHARING	CITY OF RIALTO	$463,216.00	
44	MSRC	ML16122	23	INSTALL BIKE LANES	CITY OF WILDOMAR	$500,000.00	
44	MSRC	ML18019	23	PURCHASE TWO LIGHT-DUTY ZEVS AND EVSE	CITY OF HIDDEN HILLS	$49,999.00	
44	MSRC	ML18020	23	PURCHASE ONE MEDIUM AND ONE HEAVY-DUTY ZERO EMISSION VEHICLE	CITY OF COLTON	$67,881.00	
44	MSRC	ML18021	23	INSTALL ELECTRIC VEHICLE CHARGING STATIONS	CITY OF SIGNAL HILL	$49,661.00	
44	MSRC	ML18022	23	SYNCHRONIZE TRAFFIC SIGNALS ON PALM DRIVE	CITY OF DESERT HOT SPRINGS	$50,000.00	
44	MSRC	ML18034	23	INSTALL ELECTRIC VEHICLE CHARGING STATIONS	CITY OF CALABASAS	$50,000.00	
44	MSRC	MS16029	23	BIKEWAY IMPROVEMENTS PROJECTS	ORANGE CO TRANSPORTATION AUTHORITY	$851,883.00	
44	MSRC	MS16110	23	EXPAND EXISTING NATURAL GAS FUELING STATIONS AND MODIFY MAINTENANCE FACILITY	CITY OF RIVERSIDE	$300,000.00	
44	MSRC	MS16121	23	PURCHASE 40 HEAVY-DUTY NEAR-ZERO VEHICLES	LONG BEACH TRANSIT	$600,000.00	
44	MSRC	MS18001	23	IMPLEMENT TRANSIT SERVICE TO DODGER STADIUM	LOS ANGELES COUNTY METROPOLITAN	$771,855.00	
44	MSRC	MS18004	23	IMPLEMENT SPECIAL TRAIN SERVICE TO ANGEL STADIUM	ORANGE CO TRANSPORTATION AUTHORITY	$503,272.00	
44	MSRC	MS18005	23	IMPLEMENT SPECIAL TRAIN SERVICE TO ORANGE COUNTY FAIR	ORANGE CO TRANSPORTATION AUTHORITY	$834,222.00	
44	MSRC	MS18006	23	IMPLEMENT ANAHEIM CIRCULATOR SERVICE	ANAHEIM TRANSPORTATION NETWORK	$219,564.00	
44	MSRC	MS18007	23	TECHNICAL ADVISOR FOR MSRC	RAYMOND GORSKI	$350,000.00	

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44	MSRC	MS18008	23	IMPLEMENT SPECIAL BUS SERVICE TO LOS ANGELES COUNTY FAIR	FOOTHILL TRANSIT AGENCY	$100,000.00	
44	MSRC	MS18010	23	IMPLEMENT SPECIAL METROLINK SERVICE TO UNION STATION IN SUPPORT OF PROFESSIONAL FOOTBALL GAMES HELD AT THE COLISEUM IN 2017 AND 2018	SO CALIFORNIA REGIONAL RAIL AUTHORITY	$351,186.00	
44	MSRC	MS18011	23	IMPLEMENT SPECIAL TRAIN AND BUS SERVICE TO MISSION INN	SO CALIFORNIA REGIONAL RAIL AUTHORITY	$239,565.00	
44	MSRC	MS18012	23	INSTALL TIME-FILL CNG STATION	CITY OF HERMOSA BEACH	$36,000.00	
44	MSRC	MS18018	23	MODIFY MAINTENANCE FACILITY	CITY OF NORWALK	$75,000.00	
					Subtotal	**$117,704,571.12**	
Competitive-Executive Officer Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18075	01	LEASE 2 CHEVROLET BOLTS	SELMAN CHEVROLET COMPANY	$26,823.00	
27	INFORMATION MANAGEMENT	C18140	01	AER SYSTEMS MAINTENANCE AND TECHNOLOGY TRANSFER SERVICES	ECOTEK INC	$47,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18324	01	ARCHITECTURAL DESIGN AND SERVICES FOR IRRIGATION AND LANDSCAPE	ARCHITERRA DESIGN GROUP	$66,500.00	
					Subtotal	**$140,323.00**	
Sole Source - Board Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16262	31	SUPPORT SUSTAINABLE TRANSPORTATION ENERGY PATHWAYS (STEPs)	UNIVERSITY OF CALIFORNIA-DAVIS	$240,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17029	31	DEMONSTRATION AND EVALUATION OF PLUG-IN SMART CHARGING AT MULTIPLE ELECTRIC GRID SCALES	UNIVERSITY OF CALIFORNIA - IRVINE	$250,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17244	67	DEVELOPMENT AND DEMONSTRATION OF 4 CLASS 8 PLUG-IN HYBRID ELECTRIC DRAYAGE TRUCKS	PACCAR INC	$9,137,739.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17276	31	DEVELOPMENT OF ECO-ITS STRATEGIES FOR CARGO CONTAINERS	UNIVERSITY OF CALIFORNIA RIVERSIDE	$543,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17277	31	CONDUCT MARKET ANALYSIS FOR ZERO-EMISSION HEAVY-DUTY TRUCKS IN GOODS MOVEMENT	UNIVERSITY OF SOUTHERN CALIFORNIA	$350,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17278	31	TO DEVELOP FREIGHT LOADING STRATEGIES FOR ZERO-EMISSION HEAVY-DUTY TRUCKS IN GOODS MOVEMENT	UNIVERSITY OF SOUTHERN CALIFORNIA	$200,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17312	31,61	DEVELOPMENT AND DEMONSTRATION OF ZERO-EMISSION FUEL CELL RANGE EXTENDED ELECTRIC DRAYAGE TRUCK AND GOODS MOVEMENT OPERATIONS BETWEEN THE PORTS OF LOS ANGELES AND LONG BEACH AND THE NEAR DOCK RAIL YARDS AND WAREHOUSES.	HYDROGENICS USA INC	$1,109,279.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17331	31	CONDUCT IN-USE PARTICULATE MATTER EMISSIONS STUDY FOR GASOLINE DIRECT INJECTION ENGINES	UNIVERSITY OF CALIFORNIA RIVERSIDE	$222,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17345	75	INSTALLATION OF AIR FILTRATION SYSTEMS	IQAIR NORTH AMERICA, INC.	$593,750.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17349	31	ESTABLISH RENEWABLE NATURAL GAS CENTER	UNIVERSITY OF CALIFORNIA RIVERSIDE	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17352	31	DEVELOP AND DEMONSTRATE VESSEL PERFORMANCE MANAGEMENT SOFTWARE & EQUIPMENT	CA STATE UNIVERSITY, MARITIME ACADEMY	$50,086.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17367	31	DEVELOP AND EVALUATE AFTERTREATMENT SYSTEMS FOR LARGE DISPLACEMENT DIESEL ENGINES	SOUTHWEST RESEARCH INSTITUTE	$400,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17394	31	PROVIDE ANALYSIS OF RENEWABLE HYDROGEN PATHWAYS, ECONOMICS AND INCENTIVES	ENERGY INDEPENDENCE NOW COALITION	$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18018	31	DEVELOPMENT OF HIGH EFFICIENCY, NEAR ZERO EMISSION NATURAL GAS ENGINE FOR ON-ROAD HEAVY-DUTY VEHICLES	NORTH AMERICAN REPOWER LLC	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18067	56	APPROVED DISMANTLER FOR ENHANCED FLEET MODERNIZATION PROGRAM	SA RECYCLING LLC	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18072	31	STUDY ELECTRIFICATION OPTIONS OF ENERGY SERVICES FOR EJ COMMUNITIES AND NON-ATTAINMENT AREAS	EPRI	$150,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18089	75	INSTALLATION OF AIR FILTRATION SYSTEMS AT SCHOOLS	IQAIR NORTH AMERICA, INC.	$285,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18090	31	SECONDARY ORGANIC AEROSOL (SOA) FORMATION FROM HEAVY-DUTY DIESEL AND NATURAL GAS VEHICLES	UNIVERSITY OF CALIFORNIA RIVERSIDE	$85,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18097	75	INSTALLATION OF AIR FILTRATION SYSTEMS AT SCHOOLS	IQAIR NORTH AMERICA, INC.	$25,650.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18103	75	INSTALLATION OF AIR FILTRATION SYSTEMS AT SCHOOLS	IQAIR NORTH AMERICA, INC.	$691,656.72	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18118	31	PARTICIPATE IN CAFCP FOR CALENDAR YEAR 2017 AND PROVIDE SUPPORT FOR REGIONAL COORDINATOR	FRONTIER ENERGY INC	$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18122	31	SOUTHERN CALIFORNIA TRUCKING DEMONSTRATION OF NEAR-ZERO ISX12-G ENGINES	CLEAN ENERGY	$3,495,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18151	31	DEVELOP AND DEMONSTRATE BATTERY ELECTRIC SWITCHER LOCOMOTIVE	RAIL PROPULSION SYSTEMS LLC	$210,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18193	02	EMERGING ENERGY EFFICIENT TECHNOLOGY DEMONSTRATIONS AT SCAQMD HEADQUARTERS	WILLDAN LIGHTING & ELECTRIC OF CALIFORNI	$2,293,645.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18194	31	DEVELOP AND DEMONSTRATE NEAR-ZERO EMISSION OPPOSED PISTON ENGINE	CALSTART, INC	$1,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18206	31	ASSESS AIR QUALITY AND GREENHOUSE GAS IMPACTS OF A MICROGRID-BASED ELECTRICITY PROGRAM	UNIVERSITY OF CALIFORNIA - IRVINE	$660,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18208	46	2018 SCAQMD SENIOR CONFERENCE VENUE RENTAL	LOS ANGELES CONVENTION CENTER	$10,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18211	31	DEVELOP THERMAL MANAGEMENT STRATEGY USING CYLINDER DEACTIVATION FOR HEAVY-DUTY DIESEL ENGINES	WEST VIRGINIA UNIVERSITY INNOVATION CORP	$250,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18228	75	INSTALLATION AND MAINTENANCE OF HIGH-EFFICIENCY AIR FILTRATION SYSTEMS AT ELIGIBLE SCHOOLS IN ENVIRONMENTAL JUSTICE OR OTHER TARGET COMMUNITIES	IQAIR NORTH AMERICA, INC.	$250,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18248	46	PROVIDE BUS SERVICES FOR SENIORS ATTENDING THE2018 HEALTHY LIVING AND CLEAN AIR FAIR FOR SENIORS	US BUS CHARTER & LIMO	$38,787.50	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18255	01	TECHNICAL SUPPORT FOR THE SCAQMD UPPER AIR METEOROLOGICAL MONITORING NETWORK	SONOMA TECHNOLOGY INC	$60,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C18263	01	CONDUCT A NATIONWIDE ECONOMIC IMPACTS EVALUATION OF ACCELERATED DEPLOYMENT OF ZERO AND NEAR-ZERO NOX EMISSIONS TECHNOLOGIES IN THE HEAVY-DUTY TRUCK SECTOR BY 2032	ICF RESOURCES, LLC	$229,693.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18272	01	COMMUNITY NETWORK OF "LOW-COST" SENSORS AND USER INTERFACE	QSENSE, INC.	$700,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18278	01	STRATEGIC CONSULTING	DOUBLE NICKEL ADVISORS, LLC	$120,000.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C18284	46	CATERING SERVICES FOR SENIOR HEALTHY LIVING AND CLEAN AIR FAIR	LEVY PREMIUM FOODSERVICE PARTNERSHIP	$103,223.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18291	46	SENIOR CELEBRATING HEALTHY LIVING AND CLEAN AIR FAIR	LOS ANGELES UNIFIED SCHOOL DISTRICT	$400.00	
					Subtotal	**$24,198,909.22**	
Sole Source - Executive Officer Approved							
16	ADMINISTRATIVE & HUMAN RESOURCES	C17350	01	HUMAN RESOURCES CONSULTING	SHAW HR CONSULTING, INC.	$10,000.00	
08	LEGAL	C17356	01	IMAGING SERVICES FOR LEGAL OFFICE	HYLAND SOFTWARE, INC.	$3,650.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17385	1	LEASE 2017 HONDA CLARITY VEHICLES	AMERICAN HONDA MOTOR COMPANY INC	$17,303.85	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17391	01	PUBLICATION OF A FOUR-PAGE BROADSHEET FULL-COLOR NEWSPAPER WRAP	LOS ANGELES SENTINEL, INC	$50,000.00	
08	LEGAL	C17407	01	LEGAL ADVICE REGARDING THE CALIFORNIA COASTAL ACT AND RELATED MATTERS AS WELL AS REPRESENTATION OF THE SCAQMD BEFORE THE CALIFORNIA COASTAL COMMISSION	GAINES & STACEY, LLP	$10,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18021	01	WEST INLAND EMPIRE EMPLOYMENT RELATIONS CONSORTIUM	LIEBERT CASSIDY WHITMORE	$4,195.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18032	01	PROVIDE VENUE AND CATERING SERVICES FOR 2018 MARTIN LUTHER KING DAY OF SERVICE FORUM	LEVY PREMIUM FOODSERVICE PARTNERSHIP	$27,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18035	01	COUNSEL: LIABILITY LITIGATION	DUNBAR & ASSOCIATES, A PROFESSIONAL LAW	$25,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18064	01	CALIFORNIA LEGISLATIVE LATINO CAUCUS OUTREACH	LEE ANDREWS GROUP INC	$75,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18066	01	HUMAN RESOURCES TEST RENTAL	CPS HUMAN RESOURCE CONSULTING	$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18076	01	PUBLIC OPINION RESEARCH	FAIRBANK MASLIN MAULLIN & ASSOCIATES	$75,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18101	01	DR. MARTIN LUTHER KING JR. DAY OF PUBLIC SERVICE	LEE ANDREWS GROUP INC	$75,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18130	01	EMCEE SERVICES FOR SCAQMD ENVIRONMENTAL CONFERENCE	THE COACHING FACTORY LLC	$1,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18131	01	PROVIDE SCAQMD ENVIRONMENTAL CONFERENCE PANELIST SERVICES	HIP HOP CAUCUS EDUCATION FUND, INC.	$1,200.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C18132	01	2018 CESAR CHAVEZ DAY EVENT	LEE ANDREWS GROUP INC	$75,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18142	01	2018 MARTIN LUTHER KING, JR. DAY OF SERVICE FORUM MUSIC SERVICES	GREGORY JONES	$1,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18143	01	2018 REV. MARTIN LUTHER KING, JR. DAY OF SERVICE FORUM VENUE AND CATERING	RUNWAY TWO-FIVE CORPORATION	$16,905.81	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18146	01	CSAC-EIA JOINT POWERS AGREEMENT	CSAC EXCESS INSURANCE AUTHORITY	$0.00	1
16	ADMINISTRATIVE & HUMAN RESOURCES	C18147	01	BENEFIT PLAN ADMINISTRATION AGREEMENT	BENEFIT COORDINATORS CORPORATION	$60,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18148	01	BUSINESS ASSOCIATE AGREEMENT	BENEFIT COORDINATORS CORPORATION	$0.00	1
35	LEGISLATIVE & PUBLIC AFFAIRS	C18149	01	SPECIAL REFINERY MEETING VENUE	HOLIDAY INN SELECT	$7,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18162	01	THE FAITH BASED ENVIRONMENTAL SUSTAINABILITY PROJECT	GENESIS 1 CONSULTING GROUP	$74,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18195	01	ENGAGE, EDUCATE AND EMPOWER CALIFORNIA COMMUNITIES ON THE USE AND APPLICATION OF "LOW-COST" AIR MONITORING SENSORS	SPECIAL SERVICE FOR GROUPS, INC.	$15,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C18196	01	PROVIDE POINT SOURCE MODELING ASSISTANCE IN PERMITTING BACKLOG	CASTLE ENVIRONMENTAL CONSULTING, LLC	$50,000.00	
08	LEGAL	C18205	01	SOUTHERN CALIFORNIA EDISON POLE USE AGREEMENT	SOUTHERN CALIFORNIA EDISON	$1,600.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18222	01	AB134 AND AB617 PUBLIC EDUCATION OUTREACH	EAST YARD COMMUNITIES	$19,997.08	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18225	01	AIR QUALITY MONITORING NETWORK DATA VISUALIZATION AND ANALYSIS SYSTEM	ENVIROSUITE CORP.	$20,000.00	
08	LEGAL	C18227	01	CONSULTING EXPERT REGARDING COMPLIANCE BY THE TORRANCE REFINING COMPANY WITH DECISIONS BY THE SCAQMD HEARING BOARD	AXTON POWER & CONTROL, LLC	$35,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18229	01	2018 CESAR CHAVEZ DAY OF REMEMBRANCE EVENT - MUSIC SERVICES	COLIBRI ENTERTAINMENT, INC	$1,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18230	01	2018 CESAR CHAVEZ DAY OF REMEMBRANCE VENUE RENTAL AND CATERING SERVICES	CALIFORNIA STATE UNIVERSITY· LOS ANGELES	$17,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18233	01	AB134 & AB617 PUBLIC EDUCATION OUTREACH	EDWIN LOMBARD MANAGEMENT LLC	$20,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18234	01	TECHNICAL EXPERTISE FOR LABORATORY WET CHEMISTRY NEEDED FOR THE ANALYSIS OF VOC COMPLIANCE SAMPLES	JOSEPH S VAIL	$35,100.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18241	01	EXECUTIVE MEETING CONTRACT FOR VENUE AND CATERING FOR THE 30TH ANNUAL SCAQMD CLEAN AIR AWARDS	SHEN ZHEN NEW WORLD I, LLC	$25,000.00	
08	LEGAL	C18243	01	CONSULTING EXPERT - BANKRUPTCY LAW	ANGLIN, FLEWELLING, RASMUSSEN, CAMPBELL	$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18246	01	GUEST SPEAKER FOR SCAQMD CESAR CHAVEZ DAY OF REMEMBRANCE EVENT	MARC R GROSSMAN	$1,200.00	
49	SCIENCE & TECHNOLOGY ADVANCEMENT	C18253	01	IDENTIFY AND SECURE A "FUTURIST" CLEAN TRANSPORTATION OR GOODS MOVEMENT TECHNOLOGIES EXPERT	THREE SQUARES INC.	$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18259	01	VENUE AND CATERING FOR THE EJ INTERAGENCY WORKSHOP	LEVY PREMIUM FOODSERVICE PARTNERSHIP	$2,831.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18262	01	AB134 ABD AB617 PUBLIC EDUCATION OUTREACH	REACH OUT	$20,000.00	
49	SCIENCE & TECHNOLOGY ADVANCEMENT	C18280	01	3 YEAR LEASE HONDA CLARITY	HONDA OF PASADENA LLC	$18,709.23	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18308	01	AB 617 PUBLIC EDUCATION OUTREACH	EDWIN LOMBARD MANAGEMENT LLC	$5,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C18317	01	CONSULTING SERVICES TO INVESTIGATE INCENTIVE SCHEMES TO REDUCE PORT AND VESSEL EMISSIONS	ENERGY AND ENVIRONMENTAL RESEARCH	$66,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18325	01	EXIDE COMMITTEE MEETING - RENTAL OF MULTI-PURPOSE ROOM	ROMAN CATHOLIC ARCHBISHOP OF LOS ANGELES	$750.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18326	01	PROVIDE VENUE FOR AB617 - HUTTON COMMUNITY CENTER	CITY OF COLTON	$665.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18327	01	AB617 MEETING VENUE - LAS PALMAS PARK	CITY OF SAN FERNANDO	$300.00	
26	PLANNING RULE DEV & AREA SOURCES	C18331	01	CONSULTANT SUPPORT FOR DEVELOPMENT OF PROPOSED RULE 1410 - HYDROGEN FLUORIDE USE AT PETROLEUM REFINERIES	QUEST CONSULTANTS INC.	$75,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C18332	01	SUPPORT FOR DEVELOPMENT OF PROPOSED RULE 1410 - HYDROGEN FLOURIDE USE AT PETROLEUM REFINERIES	HAZARD ANALYSIS CONSULTING	$24,900.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18384	01	SCAQMD'S EJ WORKSHOP VENUE	CALIFORNIA COMMUNITY FOUNDATION	$1,125.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C18385	01	2018 EJ CONFERENCE VENUE AGREEMENT	SAINT SOPHIA GREEK ORTHODOX COMMUNITY	$15,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18395	01	AB 617 OUTREACH SERVICES	PACOIMA BEAUTIFUL	$7,500.00	
					Subtotal	**$1,103,431.97**	

II. OTHER

Board Assistant

Board Administrative Committee Reviewed/Executive Officer Approved

02	GOVERNING BOARD	C18000	01	BOARD ASSISTANT SERVICES FOR DR. WILLIAM BURKE	P & L CONSULTING, LLC	$118,872.00	
02	GOVERNING BOARD	C18004	01	BOARD ASSISTANT SERVICES FOR BEN BENOIT	RUTHANNE TAYLOR BERGER	$86,000.00	
02	GOVERNING BOARD	C18005	01	BOARD ASSISTANT SERVICES FOR JOSEPH LYOU	MARK ABRAMOWITZ	$42,966.00	
02	GOVERNING BOARD	C18006	01	BOARD ASSISTANT SERVICES FOR MARION ASHLEY	BUFORD A CRITES	$39,624.00	
02	GOVERNING BOARD	C18007	01	BOARD ASSISTANT SERVICES FOR JOE BUSCAINO	JACOB LEE HAIK	$62,109.00	
02	GOVERNING BOARD	C18008	01	BOARD ASSISTANT SERVICES FOR SHAWN NELSON	INFRASTRUCTURE GROUP, INC	$48,872.00	
02	GOVERNING BOARD	C18009	01	BOARD ASSISTANT SERVICES FOR DR. CLARK E. PARKER	MARIA INIGUEZ	$38,750.00	
02	GOVERNING BOARD	C18010	01	BOARD ASSISTANT SERVICES FOR DR. JOSEPH LYOU	NICOLE NISHIMURA	$38,997.00	
02	GOVERNING BOARD	C18011	01	BOARD ASSISTANT SERVICES FOR JUDY MITCHELL	MARISA KRISTINE PEREZ	$63,589.00	
02	GOVERNING BOARD	C18012	01	BOARD ASSISTANT SERVICES FOR JANICE RUTHERFORD	COUNTY OF SAN BERNARDINO	$63,636.00	
02	GOVERNING BOARD	C18013	01	BOARD ASSISTANT SERVICES FOR LARRY MCCALLON	RONALD KETCHAM	$39,040.56	
02	GOVERNING BOARD	C18014	01	BOARD ASSISTANT SERVICES FOR DWIGHT ROBINSON	MATTHEW AUGUST HOLDER	$39,624.00	
02	GOVERNING BOARD	C18015	01	BOARD ASSISTANT SERVICES FOR BEN BENOIT	CITY OF WILDOMAR	$32,872.00	
02	GOVERNING BOARD	C18016	01	BOARD ASSISTANT SERVICES FOR JANICE RUTHERFORD	COUNTY OF SAN BERNARDINO	$0.00	1
02	GOVERNING BOARD	C18017	01	BOARD ASSISTANT SERVICES FOR SHEILA KUEHL	DIANE MOSS	$65,163.00	
02	GOVERNING BOARD	C18025	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	DAVID CZAMANSKE	$8,400.00	
02	GOVERNING BOARD	C18026	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	JAMES GLEN DUNCAN	$8,484.00	
02	GOVERNING BOARD	C18027	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	TIMOTHY PHILLIP SANDOVAL	$6,500.00	
02	GOVERNING BOARD	C18028	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	SHO TAY	$4,800.00	

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02	GOVERNING BOARD	C18029	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	BENJAMIN S WONG	$5,250.00	
02	GOVERNING BOARD	C18079	01	BOARD ASSISTANT SERVICES FOR DR. CLARK E. PARKER	KANA MIYAMOTO	$41,177.00	
02	GOVERNING BOARD	C18152	01	BOARD ASSISTANT SERVICES FOR HILDA L SOLIS	ANNA MARIA SOLIS	$30,655.00	
02	GOVERNING BOARD	C18276	01	BOARD ASSISTANT SERVICES FOR HILDA L SOLIS	YIFANG ZHU	$14,118.65	
					Subtotal	**$899,499.21**	
Other - Executive Officer Approved							
16	ADMINISTRATIVE & HUMAN RESOURCES	C18002	01	LICENSE AGREEMENT FOR AIR MONITORING STATION IN COMPTON	TERESA CARTER	$1,200.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18128	01	LICENSE AGREEMENT FOR AIR MONITORING STATION IN PARAMOUNT	MOBILE RELAY ASSOCIATES	$14,328.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18136	01	NORCO AIR MONITIORING STATION	DEPARTMENT OF THE NAVY	$0.00	1
16	ADMINISTRATIVE & HUMAN RESOURCES	C18141	01	MATES V STUDY MONITORING	LOS ANGELES UNIFIED SCHOOL DISTRICT	$8,850.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18244	01	LONG BEACH AIR MONITORING STATION	CITY OF LONG BEACH	$4,998.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18287	01	INSTALLATION OF ONE DC FASTCHARGING STATION AT SCAQMD HEADQUARTERS	EVGO SERVICES, LLC	$0.00	1
					Subtotal	**$29,376.00**	
III. SPONSORSHIPS							
Sponsorship -Executive Officer Approved							
35	LEGISLATIVE & PUBLIC AFFAIRS	C17392	01	COSPONSOR 41ST ASSEMBLY DISTRICT COMMUNITY RESOURCE FAIR AND BLOCK PARTY	FLINTRIDGE CENTER	$2,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17401	01	COSPONSOR THE ASILOMAR 2017 CONFERENCE ON TRANSPORTATION & ENERGY POLICY	UNIVERSITY OF CALIFORNIA-DAVIS	$30,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18001	01	COSPONSOR LGC EVENTS IN 2018	LOCAL GOVERNMENT COMMISSION	$10,000.00	
49	SCIENCE & TECHNOLOGY ADVANCEMENT	C18003	01	COSPONSOR 2017 LOS ANGELES ENVIRONMENTAL FORUM	SOUTHERN CALIFORNIA CHINESE-AMERICAN	$2,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18030	01	COSPONSOR 2017 SANTA MONICA ALTCAR EXPO & CONFERENCE	PLATIA PRODUCTIONS	$20,785.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C18036	01	COSPONSOR THE 2017 CLEAN AIR CAR SHOW AND GREEN LIVING EXPO	CITY OF SOUTH PASADENA	$3,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18039	01	COSPONSOR THE 2017 WOMEN IN GREEN FORUM	THREE SQUARES INC.	$10,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18040	01	COSPONSOR THE LEGACY CONTINUES: BLACK TIE GALA	THE CALIFORNIA LEGISLATIVE BLACK CAUCUS	$10,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18045	01	COSPONSOR 2ND ANNUAL SOUTH LOS ANGELES YOUTH SUSTAINABILITY AND EMPOWERMENT SUMMIT	CALIFORNIA GREENWORKS, INC.	$1,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18069	01	COSPONSOR THE LOS ANGELES NATIONAL DRIVE ELECTRIC WEEK 2017	PLUG IN AMERICA	$1,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18077	01	COSPONSOR LUNG FORCE WALK	AMERICAN LUNG ASSOCIATION	$5,000.00	
50	ENGINEERING AND PERMITTING	C18078	01	COSPONSOR THE A&WMA 2017 AIR QUALITY MEASUREMENT METHODS AND TECHNOLOGY CONFERENCE	AIR & WASTE MANAGEMENT ASSOCIATION	$3,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18087	01	COSPONSOR WATERFEST 2017 EVENT	UPPER SAN GABRIEL VALLEY MUNICIPAL	$500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18088	01	COSPONSOR RENDEZVOUS BACK TO ROUTE 66 EVENT	SAN BERNARDINO AREA CHAMBER OF COMMERCE	$3,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18092	01	COSPONSOR THE CALETC 2017 LOS ANGELES AUTO SHOW EVENTS	CALIFORNIA ELECTRIC TRANSPO. COALITION	$8,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18099	01	COSPONSOR 8TH ENVIRONMENTAL HEALTH LEADERSHIP SUMMIT	COMITE CIVICO DEL VALLE, INC	$2,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18100	01	COSPONSOR CALIFORNIA AIR RESOURCES BOARD LUNCHEON EVENT	GREATER RIVERSIDE CHAMBERS OF COMMERCE	$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18120	01	COSPONSOR THE SOUTHERN CALIFORNIA ENERGY WATER + GREEN LIVING 2018 SUMMIT	BURKE RIX COMMUNICATIONS, LLC	$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18123	01	COSPONSOR CAL STATE SAN MARCOS 2017 QUALITY SYMPOSIUM	CALIFORNIA STATE UNIVERSITY SAN MARCOS	$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18125	01	COSPONSOR 2018 SBCCOG GENERAL ASSEMBLY	SOUTH BAY CITIES	$2,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18126	01	COSPONSOR PIONEER OF AFRICAN AMERICAN ACHIEVEMENT AWARD DINNER	LOS ANGELES BROTHERHOOD CRUSADE	$6,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18133	01	COSPONSOR CHBC'S HYDROGEN AND FUEL CELLS IN THE PORTS BRIEFING	CALIFORNIA HYDROGEN BUSINESS COUNCIL	$2,500.00	

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49	SCIENCE & TECHNOLOGY ADVANCEMENT	C18145	01	COSPONSOR RETHINK METHANE 2018	GLADSTEIN, NEANDROSS & ASSOCIATES	$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18156	01	COSPONSOR ICEPAG 2018	UNIVERSITY OF CALIFORNIA - IRVINE	$7,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18163	01	COSPONSOR THE CALSTART 2018 CLEAN TRANSPORTATION SUMMIT, CA: 2030	CALSTART, INC	$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18164	01	COSPONSOR 4TH ANNUAL ENVIRONMENTAL HEALTH & ENFORCEMENT SUMMIT	DEL AMO ACTION COMMITTEE	$2,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18199	01	COSPONSOR NREL'S NATURAL GAS VEHICLE TECHNOLOGY FORUM	NATIONAL RENEWABLE ENERGY LAB	$15,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18219	01	COSPONSOR 28TH REAL WORLD EMISSIONS WORKSHOP	COORDINATING RESEARCH COUNCIL INC	$5,000.00	
49	SCIENCE & TECHNOLOGY ADVANCEMENT	C18226	01	COSPONSOR THE ACT EXPO 2018	GLADSTEIN, NEANDROSS & ASSOCIATES	$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18235	01	COSPONSOR 2018 CALIFORNIA PASSENGER RAIL SUMMIT	SOUTHWEST RAIL PASSENGER ASSOCIATION	$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18239	01	COSPONSOR OF JPY'S ANNUAL EVENT	JPY-LA	$7,000.00	
49	SCIENCE & TECHNOLOGY ADVANCEMENT	C18245	01	COSPONSOR UCR 2018 PROTABLE EMISSIONS MEASUREMENT SYSTEMS CONFERENCE AND WORKSHOP	UNIVERSITY OF CALIFORNIA RIVERSIDE	$10,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18249	01	COSPONSOR CARB'S 50TH ANNIVERSARY TECHNOLOGY SYMPOSIUM AND SHOWCASE	UNIVERSITY OF CALIFORNIA RIVERSIDE	$10,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18256	01	COSPONSOR CITY OF CLAREMONT EARTH DAY CELEBRATION 2018	SUSTAINABLE CLAREMONT	$500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18279	01	COSPONSOR THE 2018 BREATH OF LIFE AWARDS	BREATHE CALIFORNIA OF LOS ANGELES COUNTY	$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18282	01	COSPONSOR THE HYDROGEN & FUEL CELL ON-ROAD FREIGHT WORKSHOP	CALIFORNIA HYDROGEN BUSINESS COUNCIL	$5,000.00	
49	SCIENCE & TECHNOLOGY ADVANCEMENT	C18290	01	COSPONSOR THE 2018 ADVANCED TRANSPORTATION SYMPOSIUM & EXPO	SUSTAIN OC	$3,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C18293	01	COSPONSOR 27TH ANNUAL GENERAL ASSEMBLY AND LEADERSHIP ADDRESS	WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS	$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18382	01	COSPONSOR THE 2018 WOMEN IN GREEN FORUM	THREE SQUARES INC.	$10,000.00	
					Subtotal	**$309,785.00**	

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	IV. MODIFICATIONS						
	Board Approved						
08	LEGAL	C10052	01	PROVIDE EMPLOYEE RELATIONS LITIGATION SERVICES	LIEBERT CASSIDY WHITMORE	$0.00	6
08	LEGAL	C12702	01	LEGAL ADVICE FOR LAWSUITS AND ADMINISTRATIVE PROCEEDINGS	SHUTE MIHALY & WEINBERGER LLP	$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14027	58	COACHELLA VALLEY WEATHERIZATION PROJECT	QUALITY INTERIORS, INC.	$21,308.10	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14062	31	CONSTRUCT A ONE MILE CATENARY SYSTEM & DEVELOP AND DEMONSTRATE A DIESEL CATENARY HYBRID ELECTRIC TRUCK	SIEMENS INDUSTRY, INC.	$430,000.00	
04	FINANCE	C14150	57	CITY OF EL MONTE LAMBERT PARK PROJECT	CITY OF EL MONTE	$11,298.00	
08	LEGAL	C14191	01	PROVIDE LEGAL SERVICES CONCERNING EXIDE BANKRUPTCY PROCEEDINGS	KLEE, TUCHIN, BOGDANOFF & STERN LLP	$75,000.00	
08	LEGAL	C14191	01	PROVIDE LEGAL SERVICES CONCERNING EXIDE BANKRUPTCY PROCEEDINGS	KLEE, TUCHIN, BOGDANOFF & STERN LLP	$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14219	31	UPGRADE CNG STATION AT CITY YARD	CITY OF WEST COVINA	$0.00	11
27	INFORMATION MANAGEMENT	C15446	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	$155,060.00	
27	INFORMATION MANAGEMENT	C15446	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	$220,000.00	
27	INFORMATION MANAGEMENT	C15468	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	VARSUN ETECHNOLOGIES GROUP, INC	$350,000.00	
27	INFORMATION MANAGEMENT	C15468	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	VARSUN ETECHNOLOGIES GROUP, INC	$360,000.00	
27	INFORMATION MANAGEMENT	C15468	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	VARSUN ETECHNOLOGIES GROUP, INC	$500,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15541	56	ENHANCED FLEET MODERNIZATION PROGRAM	FOUNDATION FOR CALIF COMMUNITY COLLEGES	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15586	56	ENHANCED FLEET MODERNIZATION PROGRAM	OPUS INSPECTION INC	$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15586	56	ENHANCED FLEET MODERNIZATION PROGRAM	OPUS INSPECTION INC	$385,000.00	

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27	INFORMATION MANAGEMENT	C15587	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	PRELUDE SYSTEMS, INC.	$145,000.00	
27	INFORMATION MANAGEMENT	C15587	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	PRELUDE SYSTEMS, INC.	$225,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16056	80	REPLACE 10 AND PURCHASE 1 DIESEL LOCOMOTIVE	SO CALIFORNIA REGIONAL RAIL AUTHORITY	$9,000,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C16074	01	ENVIRONMENTAL JUSTICE COMMUNITY PARTNERSHIP (THE PARTNERSHIP) INITIATIVE	LEE ANDREWS GROUP INC	$160,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C16157	01	PROVIDE WASHINGTON DC LEGISLATIVE REPRESENTATION	KADESH & ASSOCIATES LLC	$226,400.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C16158	01	PROVIDE WASHINGTON DC LEGISLATIVE REPRESENTATION	CARMEN GROUP, INC	$222,090.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C16159	01	PROVIDE WASHINGTON DC LEGISLATIVE REPRESENTATION	CASSIDY & ASSOCIATES, INC	$216,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16181	80	ONLINE APPLICATION SYSTEM FOR CARL MOYER PROGRAM	TRINITY TECHNOLOGY GROUP, INC.	$85,000.00	
20	MEDIA OFFICE	C16190	46	GOOGLE AD CAMPAIGN	GOOGLE, INC	$250,000.00	
20	MEDIA OFFICE	C16190	01	GOOGLE AD CAMPAIGN	GOOGLE, INC	$250,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16205	31	DEVELOP, INTEGRATE & DEMO ULTRA-LOW EMISSION 12L NATURAL GAS ENGINES FOR ON-ROAD HEAVY-DUTY VEHICLES	CUMMINS WESTPORT INC	$2,500,000.00	
08	LEGAL	C16392	01	LEGAL ADVICE AND REPRESENTATION FOR SO CAL GAS LITIGATION	HUANG YBARRA GELBERG & MAY LLP	$40,000.00	
08	LEGAL	C16392	01	LEGAL ADVICE AND REPRESENTATION FOR SO CAL GAS LITIGATION	HUANG YBARRA GELBERG & MAY LLP	$50,000.00	
20	MEDIA OFFICE	C17023	36	MEDIA, ADVERTISING AND PUBLIC OUTREACH CAMPAIGN FOR CHECK BEFORE YOU BURN PROGRAM	WESTBOUND COMMUNICATIONS INC	$246,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17044	80	PROVIDE TECHNICAL ASSISTANCE, IMPLEMENTATION AND OUTREACH SUPPORT FOR CARL MOYER PROGRAM	CLEAN FUEL CONNECTION INC	$150,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17097	31	TECHNICAL ASSISTANCE WITH ALTERNATIVE FUELS AND FUELING INFRASTRUCTURE, EMISSIONS ANALYSIS AND ON-ROAD SOURCES	GLADSTEIN, NEANDROSS & ASSOCIATES	$50,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17114	35	APPLICATION OF NEXT GENERATION AIR MONITORING METHODS TO CHARACTERIZE HAZARDOUS AIR POLLUTANT EMISSIONS FROM REFINERIES AND ASSESS POTENTIAL IMPACTS TO SURROUNDING COMMUNITIES	FLUXSENSE AB	$55,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17135	32	REPOWER OF ONE MAIN AND TWO AUXILIARY ENGINES OF A MARINE VESSEL	THOMAS T NGUYEN	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17169	32,17	REPOWER 2 MAIN ENGINES ON A MARINE VESSEL	MATTHEW POTTER	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17181	32	REPLACEMENT OF ONE OFF-ROAD AGRICULTURAL EQUIPMENT	BAUTISTA CREEK RANCHES, INC	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17212	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	ORGANIC DEPOT LLC	$0.00	4
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17230	32	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	MARVO HOLSTEINS	$115,003.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17255	32	REPLACE 6 OFF-ROAD AGRICULTURAL VEHICLES	AMAZING COACHELLA INC	$222,995.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17342	81	PROP 1B GOODS MOVEMENT PROGRAM	AMERICA TRADING SERVICE INC.	$600,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17358	31	TECHNICAL ASSISTANCE WITH HEAVY-DUTY VEHICLE EMISSIONS TESTING, ANALYSES & ENGINE DEVELOPMENT	AEE SOLUTIONS LLC	$50,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17363	01	DEVELOPMENT OF REAL-TIME PUBLIC AIR QUALITY ALERT SYSTEM	SONOMA TECHNOLOGY INC	$15,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17403	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FENCECORP, INC.	$80,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17404	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FENCE WORKS INC.	$80,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18091	81	PROP 1B TRUCK AND TRU REPLACEMENT AND INFRASTRUCTURE PROJECTS	GELSON'S MARKETS	$520,000.00	
08	LEGAL	C18114	01	PROVIDE ENVIRONMENTAL LAW SERVICES	WOODRUFF SPRADLIN & SMART	$125,000.00	
08	LEGAL	C18114	01	PROVIDE ENVIRONMENTAL LAW SERVICES	WOODRUFF SPRADLIN & SMART	$250,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18124	81	PROP 1B TRUCK REPLACEMENT PROGRAM	AJR TRUCKING, INC.	$1,200,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C18124	81	PROP 1B TRUCK REPLACEMENT PROGRAM	AJR TRUCKING, INC.	$2,170,000.00	
27	INFORMATION MANAGEMENT	C18247	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	$262,000.00	
44	MSRC	MS14059	23	SIGNAL SYNCHRONIZATION PARTNERSHIP PROGRAM	RIVERSIDE COUNTY TRANSPORTATION COMM	$0.00	11
44	MSRC	MS16030	23	PROGRAMMATIC OUTREACH SERVICES ON BEHALF OF THE MSRC	THE BETTER WORLD GROUP, INC	$125,903.00	
44	MSRC	MS16120	23	PURCHASE 39 AND REPOWER 24 NEAR-ZERO CNG VEHICLES	OMNITRANS	$0.00	11
44	MSRC	MS18001	23	IMPLEMENT TRANSIT SERVICE TO DODGER STADIUM	LOS ANGELES COUNTY METROPOLITAN	$36,090.00	
					Subtotal	**$22,790,147.10**	
Board Assistant							
Board Administrative Committee Reviewed/Executive Officer Approved							
02	GOVERNING BOARD	C18079	01	BOARD ASSISTANT SERVICES FOR DR. CLARK E. PARKER	KANA MIYAMOTO	$14,000.00	
					Subtotal	**$14,000.00**	
Executive Officer Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C05100	01	AIR MONITORING STATION PICO RIVERA - WHITTIER	CITY OF WHITTIER	$25,161.90	
11	LEGAL	C07321	01	ADVICE REGARDING PUBLIC FINANCE BONDS, TAXES, FEES, ETC.	STRADLING YOCCA CARLSON & RAUTH	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C08063	31	DEVELOP AND DEMONSTRATION OF 20 PLUG-IN HYBRID ELECTRIC VEHICLES	QUANTUM FUEL SYSTEMS LLC	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C08063	31	DEVELOP AND DEMONSTRATION OF 20 PLUG-IN HYBRID ELECTRIC VEHICLES	QUANTUM FUEL SYSTEMS LLC	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C08210	01	TECHNICAL ASSISTANCE ON MOVILE SOURCE CONTROL MEASURES AND FUTURE CONSULTATION ON TAO ACTIVITIES	SAWYER ASSOCIATES	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C09252	31	TECHNICAL ASSISTANCE WITH REVIEW AND ASSESSMENT OF ADVANCED TECHNOLOGIES, HEAVY-DUTY ENGINES AND CONVENTIONAL AND ALTERNATE FUELS	JWM CONSULTING SERVICES	$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C09285	32	REPOWER 8 DIESEL CATERPILLAR SCRAPERS	JAGUR TRACTOR	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C09430	59	VOUCHER INCENTIVE PROGRAM	PICK YOUR PART AUTO WRECKING	$0.00	1
08	LEGAL	C10060	01	PROVIDE EMPLOYEE LITIGATION SERVICES	WILEY PRICE & RADULOVICH	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C10722	01	RE-ESTABLISH TESTING FACILITY & QUANTIFY PM EMISSION REDUCTIONS FROM CHARBROILING OPERATIONS	UNIVERSITY OF CALIFORNIA, RIVERSIDE	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C11175	32	REPOWER AND RETROFIT ONE OFF-ROAD VEHICLE	WILLARD MARINE INC.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C11190	32	REPOWER 1 DIESEL EXCAVATOR	VULCAN MATERIALS COMPANY	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C11607	01	NATURAL GAS PURCHASE AGREEMENT	STATE OF CALIFORNIA	$27,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C11613	49	GREENHOUSE REDUCTION PROJECT	LOS ANGELES CONSERVATION CORPS	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12225	32	REPOWER 3 AUXILIARY ENGINES OF ONE MARINE VESSEL	CAPE BLANCO FISHING LP	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12268	32	REPOWER OF 1 MAIN ENGINE OF A MARINE VESSEL	MORE CARNAGE, LLC	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12269	32	REPOWER 2 MAIN AND 3 AUXILIARY ENGINES ON 2 MARINE VESSELS	HARBOR BREEZE CORP	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12453	31	TECHNICAL ASSISTANCE WITH ALTERNATIVE FUELS, FUEL CELLS, EMISSION ANALYSIS, AND AFTERTREATMENT TECHNOLOGIES	ANDRIS R. ABELE	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12667	31	UPGRADE EXISTING CNG FUELING STATION	WEST COVINA UNIFIED SCHOOL DISTRICT	$0.00	6
08	LEGAL	C12702	01	LEGAL ADVICE FOR LAWSUITS AND ADMINISTRATIVE PROCEEDINGS	SHUTE MIHALY & WEINBERGER LLP	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12871	81	PROP 1B TRUCK REPLACEMENT PROGRAM	KEENEY TRUCK LINES, INC.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13056	27	INSTALLATION OF UP TO 2MW SOLAR PV, UP TO 2MWh OF LITHIUM BATTERY STORAGE SYSTEMS AND ELECTRIC TROLLEY	UNIVERSITY OF CALIFORNIA RIVERSIDE	$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13058	31	DEVELOPMENT OF MICROTURBINE SERIES HYBRID SYSTEM FOR CLASS 7 HEAVY-DUTY VEHICLE APPLICATION	CAPSTONE TURBINE CORPORATION	$0.00	6
08	LEGAL	C13060	01	LITIGATION COUNSEL	PAUL HASTINGS LLP	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13247	32	REPLACE 4 OFF-ROAD VEHICLES	WHITTIER FERTILIZER CO.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13258	52	MOA FOR INSTALLATION AND MAINTENANCE OF AIR FILTRATION SYSTEMS IN SCHOOLS	LOS ANGELES UNIFIED SCHOOL DISTRICT	$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13261	23	REPOWER 3 MAIN AND 1 AUXILIARY ENGINE ON 2 MARINE VESSELS	MARINE TECH ENGINEERING INC.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13267	32	REPOWER 1 MAIN ENGINE ON 1 MARINE VESSEL	IN-SEINE BAIT CO.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13417	58	PURCHASE 15 NATURAL GAS VEHICLES AND UPGRADE EXISTING CNG FUELING STATION	CITY OF DESERT HOT SPRINGS	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13425	58	TRAFFIC SIGNAL SYNCHRONIZATION PROJECT	CITY OF COACHELLA	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13425	58	TRAFFIC SIGNAL SYNCHRONIZATION PROJECT	CITY OF COACHELLA	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13431	27	DEMONSTRATE STAGED COMBUSTION HYDROGEN ASSISTED EMISSION CONTROL SYSTEM	GAS TECHNOLOGY INSTITUTE	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13433	31,61	DEVELOP AND DEMONSTRATE TWO CLAS 8 ZERO-EMISSION ELECTRIC TRUCKS	US HYBRID CORPORATION	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13441	80	REPLACE UP TO 20 DIESEL LOCOMOTIVES	SO CALIFORNIA REGIONAL RAIL AUTHORITY	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14031	58	INSTALLATION OF SOLAR PHOTOVOLTAIC GROUND MOUNT SYSTEM	PALM SPRINGS UNIFIED SCHOOL DISTRICT	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14034	01	INSTALLATION OF SOLAR PHOTOVALTAIC GROUND MOUNT SYSTEM	CITY OF DESERT HOT SPRINGS	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14035	58	INSTALLATION OF SOLAR PHOTOVOLTAIC GROUND MOUNT SYSTEM	MISSION SPRINGS WATER DISTRICT	$0.00	6,11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14037	58	INSTALLATION OF SOLAR PHOTOVOLTAIC ROOF AND PARKING CANOPY SYSTEM	CITY OF PALM SPRINGS	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14039	58	MITIGATION FEE EMISSION REDUCTION PROJECT TO CONSTRUCT NEW CNG STATION	COACHELLA VALLEY UNIFIED SCHOOL DISTRICT	$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14042	58	CONSTRUCT NEW CNG STATION, PROCURE VEHICLES, AND INSTALL SOLAR PV PARKING CANOPY SYSTEM	CITY OF COACHELLA	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14121	32	REPOWER OF TWO MAIN ENGINES OF ONE MARINE VESSEL	SOUTHWEST MARINE RESOURCES, LLC	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14123	32	REPOWER OF ONE (1) MAIN ENGINE OF ONE (1) MARINE VESSEL	SCOTT KHENSOVAN	$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C14188	01	PROVIDE TECHNICAL SUPPORT FOR THE SCAQMD UPPER AIR METEOROLOGICAL MONITORING NETWORK	SONOMA TECHNOLOGY INC	$20,000.00	
08	LEGAL	C14191	01	PROVIDE LEGAL SERVICES CONCERNING EXIDE BANKRUPTCY PROCEEDINGS	KLEE, TUCHIN, BOGDANOFF & STERN LLP	$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14193	58	WEATHERIZATION PROPERTY INSPECTIONS	KLIEWER & ASSOCIATES	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14222	31	DEVELOP PLUG-IN HYBRID ELECTRIC RETROFIT SYSTEM FOR CLASS 6 TO 8 WORK TRUCKS	ODYNE SYSTEMS, LLC	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14256	31	DEVELOP AND DEMONSTRATE V2G TECHNOLOGY	NATIONAL STRATEGIES, LLC	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C14670	01	CLASSIFICATION AND COMPENSATION SERVICES	KOFF & ASSOCIATES, INC.	$0.00	6
08	LEGAL	C14681	01	OFFICE OF GENERAL COUNSEL CASE MANAGEMENT SYSTEM	COURTVIEW JUSTICE SOLUTIONS, INC	$27,155.00	
08	LEGAL	C14681	01	OFFICE OF GENERAL COUNSEL CASE MANAGEMENT SYSTEM	COURTVIEW JUSTICE SOLUTIONS, INC	$28,513.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14684	31	CONDUCT HYDROGEN STATION SITE EVALUATIONS FOR SITE CERTIFICATION FOR COMMERCIAL SALE OF HYDROGEN	CALIFORNIA DEPARTMENT OF FOOD & AGRIC.	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C15025	01	MEDICAL SERVICE PROVIDER	KAISER FOUNDATION HEALTH PLAN	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C15026	01	PROVIDE OCCUPATIONAL HEALTH SERVICES	UNIVERSITY OF CALIFORNIA - IRVINE	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15366	31	LICENSE AGREEMENT FOR HYDROGEN FUELING	ENGINEERING, PROCUREMENT & CONSTRUCTION	$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15366	31	LICENSE AGREEMENT FOR HYDROGEN FUELING	ENGINEERING, PROCUREMENT & CONSTRUCTION	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15382	31	INSTALL ELECTRIC CHARGING INFRASTRUCTURE	CHARGEPOINT, INC	$0.00	6
27	INFORMATION MANAGEMENT	C15446	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	$0.00	6
27	INFORMATION MANAGEMENT	C15447	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	AGREEYA SOLUTIONS, INC	$0.00	6
08	LEGAL	C15485	01	OUTSIDE COUNSEL - CONFLICT OF INTEREST	OLSON, HAGEL & FISHBURN LLP	$0.00	6
08	LEGAL	C15485	01	OUTSIDE COUNSEL - CONFLICT OF INTEREST	OLSON, HAGEL & FISHBURN LLP	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C15503		CAFETERIA SERVICES AT SCAQMD HEADQUARTERS	CALIFORNIA DINING SERVICES	$0.00	6
27	INFORMATION MANAGEMENT	C15587	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	PRELUDE SYSTEMS, INC.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15605	32	REPOWER 2 MAIN & 1 AUXILIARY ENGINE ON MARINE VESSEL - OPERATION ONLY	ABC BARGE & EQUIPMENT, INC	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15607	31	INNOVATIVE TRANSPORTATION SYSTEM SOLUTIONS FOR NOX REDUCTIONS IN HEAVY-DUTY FLEETS	UNIVERSITY OF CALIFORNIA RIVERSIDE	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15636	31	EVALUATE PEV UTILIZATION THROUGH ADVANCED CHARGING STRATEGIES IN A SMART GRID SYSTEM	UNIVERSITY OF CALIFORNIA RIVERSIDE	$0.00	6
08	LEGAL	C15658	01	PROVIDE EXPERTING CONSULTING SERVICES WITH REGARD TO TESORO REFINERY PROJECT	PETROTECH CONSULTANTS LLC	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15680	01	DEVELOP A DETAILED TECHNOLOGY AND ECONOMICS BASED ROADMAP FOR THE ADOPTION OF ADVANCED COMMERCIAL VEHICLE TECHNOLOGIES TO REDUCE NITROGEN OXIDES (NOx) AND GREENHOUSE GAS (GHG) EMISSIONS THROUGH 2050 WITH EMPHASIS ON THE YEARS 2023 AND 2032.	NATIONAL RENEWABLE ENERGY LAB	$20,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C16033	01	EVALUATION OF POTENTIAL HEALTH EFFECTS FROM AIR POLLUTION	JOHN R FROINES	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16037	01	INSURANCE CONSULTANT/BROKERAGE SERVICES	ALLIANT INSURANCE SERVICES INC	$49,000.00	

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08	LEGAL	C16042	01	PROVIDE LEGAL SERVICES IN CONNECTION WITH DEVELOPING AND IMPLEMENTING LEGAL STRATEGY FOR RECLAIM RULE	ARNOLD & PORTER KAYE SCHOLER LLP	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16046	61,31	ZECT - DEVELOP 2 CLASS 8 PLUG-IN HYBRID ELECTRIC TRUCKS WITH ZERO EMISSION OPERATION CAPABILITY AND EXTENDED RANGE USING AN ONBOARD GENERATOR FUELED BY CNG, FOR DEMONSTRATION IN DRAYAGE SERVICE AT THE PORTS OF LOS ANGELES AND LONG BEACH.	TRANSPORTATION POWER, INC.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16047	31,61	ZECT - DEVELOP AND DEMONSTRATE THREE CLASS 8 LNG PLUG-IN HYBRID ELECTRIC DRAYAGE TRUCKS	US HYBRID CORPORATION	$0.00	6
08	LEGAL	C16063	01	SPECIALIZED LEGAL SERVICES	HOGAN LOVELLS US LLP	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C16074	01	ENVIRONMENTAL JUSTICE COMMUNITY PARTNERSHIP (THE PARTNERSHIP) INITIATIVE	LEE ANDREWS GROUP INC	$60,000.00	
27	INFORMATION MANAGEMENT	C16155	01	PROVIDE SCAQMD WEBSITE EVALUATION AND IMPROVEMENT SERVICES	XIVIC INC	$0.00	6
27	INFORMATION MANAGEMENT	C16155	01	PROVIDE SCAQMD WEBSITE EVALUATION AND IMPROVEMENT SERVICES	XIVIC INC	$4,420.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16181	80	ONLINE APPLICATION SYSTEM FOR CARL MOYER PROGRAM	TRINITY TECHNOLOGY GROUP, INC.	$0.00	6
20	MEDIA OFFICE	C16190	46	GOOGLE AD CAMPAIGN	GOOGLE, INC	$0.00	6
27	INFORMATION MANAGEMENT	C16204	01	PHONE SYSTEM MAINTENANCE SERVICES	EPOCH UNIVERSAL, INC	$16,676.00	
26	PLANNING RULE DEV & AREA SOURCES	C16214	01	PROVIDE ASSISTANCE WITH CEQA SERVICES FOR SCAQMD RULE PROJECTS	PLACEWORKS INC	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16254	31	EVALUATE OZONE AND SECONDARY AEROSOL FORMATION FROM DIESEL FUELS	UNIVERSITY OF CALIFORNIA-BERKELEY	$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C16359	01	TECHNICAL SUPPORT FOR SCAQMD MEASUREMENTS RELATED TO THE COACHELLA VALLEY	TECHNICAL AND BUSINESS SYSTEMS	$60,000.00	
08	LEGAL	C16392	01	LEGAL ADVICE AND REPRESENTATION FOR SO CAL GAS LITIGATION	HUANG YBARRA GELBERG & MAY LLP	$50,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C16393	01	CONSULTANTS TO PROVIDE CEQA ASSISTANCE	PLACEWORKS INC	$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C16394	01	CONSULTANTS TO PROVIDE CEQA ASSISTANCE	ENVIRONMENTAL AUDIT INC	$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16396	32	REPLACEMENT OF 1 OFF-ROAD VEHICLE AND REPOWER OF 1 OFF-ROAD VEHICLE	TINA MCMINN EQUIPMENT RENTALS, INC.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17037	01	PROVIDE TECHNICAL ASSISTANCE WITH ALTERNATIVE FUELS, ELECTRIC VEHICLES, CHARGING AND FUELING INFRASTRUCTURE AND RENEWABLE ENERGY	CLEAN FUEL CONNECTION INC	$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17059	31	DEVELOP AND DEMONSTRATE FUEL CELL EXTENDED RANGE POWERTRAIN FOR PARCEL DELIVERY TRUCKS	CALSTART, INC	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C17077	01	EXECUTIVE SEARCH AND RECRUITMENT SERVICES	CPS HUMAN RESOURCE CONSULTING	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17097	01	TECHNICAL ASSISTANCE WITH ALTERNATIVE FUELS AND FUELING INFRASTRUCTURE, EMISSIONS ANALYSIS AND ON-ROAD SOURCES	GLADSTEIN, NEANDROSS & ASSOCIATES	$50,000.00	
04	FINANCE	C17104	22,23	AUDIT OF AB2766 FEE REVENUE RECIPIENTS FOR FISCAL YEARS 2013-14 & 2014-15	SIMPSON & SIMPSON, CPAs	$0.00	6
08	LEGAL	C17131	01	CONSULTING EXPERT	KENNETH A. MANASTER	$0.00	11
43	SCIENCE & TECHNOLOGY ADVANCEMENT	C17186	01	ENGAGE, EDUCATE, AND EMPOWER CALIFORNIA COMMUNITIES ON THE USE AND APPLICATIONS OF LOW-COST AIR MONITORING SENSORS	SONOMA TECHNOLOGY INC	$20,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17200	32	REPLACE 6 OFF-ROAD AGRICULTURAL VEHICLES	COTTONWOOD DAIRY	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17200	32	REPLACE 6 OFF-ROAD AGRICULTURAL VEHICLES	COTTONWOOD DAIRY	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17203	01	ENGAGE, EDUCATE, AND EMPOWER CALIFORNIA COMMUNITIES ON THE USE AND APPLICATIONS OF "LOW-COST" AIR MONITORING SENSORS	UNIVERSITY OF CALIFORNIA-LOS ANGELES	$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17205	32	REPLACEMENT OF 5 OFF-ROAD VEHICLES	T.E. ROBERTS, INC	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17218	80,32	REPLACE 9 OFF-ROAD AGRICULTURAL VEHICLES	AGRI-EMPIRE	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17220	32	REPLACE 7 OFF-ROAD AGRICULTURAL EQUIPMENT	WEST COAST TURF	$0.00	11
26	PLANNING RULE DEV & AREA SOURCES	C17224	01	EMISSION TESTING OF COMMERCIAL COOKING EQUIPMENT	FISHER-NICKEL	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17234	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	WILLIAM KOOT DAIRY	$0.00	11

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17242	32	REPLACEMENT OF 5 OFF-ROAD AGRICULTURAL EQUIPMENT	CLEVELAND FARMS, INC.	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17250	01	MEDIA SKILLS TRAINING	MILAGRO STRATEGY GROUP INC	$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17255	32	REPLACE 6 OFF-ROAD AGRICULTURAL VEHICLES	AMAZING COACHELLA INC	$0.00	6
08	LEGAL	C17264	01	EXPERT WITNESS IN EVALUATING THE HEALTH RISK POSED BY FACILITIES EMITTING AIR TOXICS INCLUDING HEXAVALENT CHROME	JOSEPH RICHARD LANDOLPH, JR.	$0.00	6
08	LEGAL	C17273	01	PUBLIC/GOVERNMENTAL LEGAL SERVICES	JONES & MAYER	$2,500.00	
08	LEGAL	C17273	01	PUBLIC/GOVERNMENTAL LEGAL SERVICES	JONES & MAYER	$15,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17310	76	BIOSOLIDS TO TRANSPORTATION FUEL-GRADE RENEWABLE NATURAL GAS (RNG) PRE-COMMERCIALIZATION OPTIMIZATION AND RESEARCH PROJECT	KORE INFRASTRUCTURE, LLC	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17316	31	DEVELOP AND DEMONSTRATE 10 ZERO-EMISSION FUEL CELL ELECTRIC BUSES	CENTER FOR TRANSPORTATION AND	$0.00	6
08	LEGAL	C17318	01	SUNSHINE CANYON LANDFILL ORDER FOR ABATEMENT EXPERT WITNESS SERVICES	E TSENG & ASSOCIATES, INC.	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17354	01	TITLE SPONSORSHIPS FOR THE REGALETTES, INC.'S 59TH AND 60TH ANNUAL "PUTTING ON THE RITZ, AN AFTERNOON IN WHITE" FUNDRAISER ON 2017 AND 2018	REGALETTES, INC.	$0.00	6
08	LEGAL	C17387	01	LEGAL ADVICE AND REPRESENTATION	JENKINS & HOGIN LLP	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C17395	01	LABOR AND EMPLOYMENT LAW	SELTZER CAPLAN MCMAHON VITEK	$25,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17402	01	UPDATE TO THE RIGHT TO BREATHE	CINEMA VERTIGE, LLC	$0.00	6

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35	LEGISLATIVE & PUBLIC AFFAIRS	C17402	01	UPDATE TO THE RIGHT TO BREATHE	CINEMA VERTIGE, LLC	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17402	01	UPDATE TO THE RIGHT TO BREATHE	CINEMA VERTIGE, LLC	$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17402	01	UPDATE TO THE RIGHT TO BREATHE	CINEMA VERTIGE, LLC	$5,800.00	
08	LEGAL	C17407	01	LEGAL ADVICE REGARDING THE CALIFORNIA COASTAL ACT AND RELATED MATTERS AS WELL AS REPRESENTATION OF THE SCAQMD BEFORE THE CALIFORNIA COASTAL COMMISSION	GAINES & STACEY, LLP	$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C18021	01	WEST INLAND EMPIRE EMPLOYMENT RELATIONS CONSORTIUM	LIEBERT CASSIDY WHITMORE	$4,195.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C18035	01	COUNSEL: LIABILITY LITIGATION	DUNBAR & ASSOCIATES, A PROFESSIONAL LAW	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C18045	01	2ND ANNUAL SOUTH LOS ANGELES YOUTH SUSTAINABILITY AND EMPOWERMENT SUMMIT	CALIFORNIA GREENWORKS, INC.	$0.00	11
35	LEGISLATIVE & PUBLIC AFFAIRS	C18045	01	2ND ANNUAL SOUTH LOS ANGELES YOUTH SUSTAINABILITY AND EMPOWERMENT SUMMIT	CALIFORNIA GREENWORKS, INC.	$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C18130	01	EMCEE SERVICES FOR SCAQMD ENVIRONMENTAL CONFERENCE	THE COACHING FACTORY LLC	$700.00	
27	INFORMATION MANAGEMENT	C18140	01	AER SYSTEMS MAINTENANCE AND TECHNOLOGY TRANSFER SERVICES	ECOTEK INC	$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C18196	01	PROVIDE POINT SOURCE MODELING ASSISTANCE IN PERMITTING BACKLOG	CASTLE ENVIRONMENTAL CONSULTING, LLC	$20,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16087	80	LOWER EMISSION SCHOOL BUS REPLACEMENT PROGRAM	ANAHEIM UNION HIGH SCHOOL DISTRICT	$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16128	80,17	PURCHASE 2 CNG SCHOOL BUS WITH A FIRE SUPPRESSION SYSTEM AND ASSOCIATED INFRASTRUCTURE	SAN JACINTO UNIFIED SCHOOL DISTRICT	$0.00	11
44	MSRC	ML05014	23	SYNCHRONIZE TWENTY FOUR TRAFFIC SIGNALS ON FLORENCE/MILLS AVENUES - FUND 23	COUNTY OF LOS ANGELES	$0.00	6
44	MSRC	ML05014	23	SYNCHRONIZE TWENTY FOUR TRAFFIC SIGNALS ON FLORENCE/MILLS AVENUES - FUND 23	COUNTY OF LOS ANGELES	$0.00	6
44	MSRC	ML09033	23	BUY 10 HD CNG VEHICLES & INSTALL CNG STATION	CITY OF BEVERLY HILLS	$0.00	6
44	MSRC	ML09036	23	PURCHASE 35 HEAVY-DUTY NATURAL GAS VEHICLES	CITY OF LONG BEACH	$0.00	6
44	MSRC	ML11045	23	PURCHASE 1 HEAVY-DUTY CNG VEHICLE	CITY OF NEWPORT BEACH	$0.00	6

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44	MSRC	ML12018	23	EXPAND CNG STATION	CITY OF WEST COVINA	$0.00	6
44	MSRC	ML12045	23	INSTALL CNG STATION	CITY OF BALDWIN PARK	$0.00	6
44	MSRC	ML12051	23	ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	CITY OF BELLFLOWER	$0.00	6
44	MSRC	ML14019	23	INSTALL EV CHARGING AND BICYCLE INFRASTRUCTURE	CITY OF CORONA	$0.00	6
44	MSRC	ML14019	23	INSTALL EV CHARGING AND BICYCLE INFRASTRUCTURE	CITY OF CORONA	$0.00	6
44	MSRC	ML14023	23	UPGRADE VEHICLE MAINTENANCE FACILITY IN WESTCHESTER	COUNTY OF LOS ANGELES	$0.00	6
44	MSRC	ML14024	23	UPGRADE MAINTENANCE FACILITY IN BALDWIN PARK	COUNTY OF LOS ANGELES	$0.00	6
44	MSRC	ML14025	23	INSTALL AND MAINTAIN A NEW CNG FUELING STATION IN MALIBU	COUNTY OF LOS ANGELES	$0.00	6
44	MSRC	ML14026	23	INSTALL AND MAINTAIN CNG FUELING STATION IN CASTAIC	COUNTY OF LOS ANGELES	$0.00	6
44	MSRC	ML14033	23	PURCHASE 2 HEAVY-DUTY CNG VEHICLES	CITY OF IRVINE	$0.00	6
44	MSRC	ML14055	23	HIGHLAND BICYCLE PROJECTS	CITY OF HIGHLAND	$0.00	6
44	MSRC	ML14056	23	INSTALL 15.9 MILES OF CLASS II BICYCLE LANE IMPROVEMENTS	CITY OF REDLANDS	$0.00	6
44	MSRC	ML14066	23	INSTALL SEGMENT OF SOUTH PASADENA BIKEWAY	CITY OF SOUTH PASADENA	$0.00	6
44	MSRC	ML14067	23	PURCHASE 2 HEAVY-DUTY CNG VEHICLES	CITY OF DUARTE	$0.00	6
44	MSRC	ML16009	23	INSTALL EV CHARGING STATIONS	CITY OF FOUNTAIN VALLEY	$0.00	6
44	MSRC	ML16013	23	PURCHASE OF 3 HEAVY-DUTY CNG VEHICLES	CITY OF MONTEREY PARK	$0.00	6
44	MSRC	ML16017	23	PURCHASE 48 MEDIUM-DUTY AND UP TO 16 HEAVY-DUTY NATURAL GAS VEHICLES AND INSTALL CNG STATION	CITY OF LONG BEACH	$0.00	11
44	MSRC	ML16020	23	INSTALL BICYCLE DETECTION SYSTEMS	CITY OF POMONA	$0.00	6
44	MSRC	ML16032	23	IMPLEMENT FOOTHILL AND ALOSTA "COMPLETE STREETS" PROJECT	CITY OF AZUSA	$0.00	6
44	MSRC	ML16034	23	IMPLEMENT "COMPLETE STREETS" PROJECT	CITY OF RIVERSIDE	$0.00	6
44	MSRC	ML16041	23	INSTALL EV CHARGING STATIONS	CITY OF MORENO VALLEY	$0.00	6
44	MSRC	ML16042	23	INSTALL EV CHARGING STATIONS	CITY OF SAN DIMAS	$0.00	6
44	MSRC	ML16046	23	INSTALL EV CHARGING STATIONS-DOWNTOWN PARKING LOT	CITY OF EL MONTE	$0.00	6
44	MSRC	ML16050	23	INSTALL EV CHARGING STATIONS	CITY OF WESTMINSTER	$0.00	6
44	MSRC	ML16053	23	IMPLEMENT "COMPLETE STREETS" PROJECT	CITY OF CLAREMONT	$0.00	6

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44	MSRC	ML16056	23	EXPAND EXISTING CNG FUELING STATION	CITY OF ONTARIO	$0.00	6
44	MSRC	ML16068	23	IMPLEMENT "OPEN STREETS" EVENT	COUNTY OF RIVERSIDE	$0.00	4
44	MSRC	ML16072	23	INSTALL EV CHARGING STATION	CITY OF PALM DESERT	$0.00	6
44	MSRC	ML16078	23	INSTALL BICYCLE INFRASTRUCTURE AND IMPLEMENT BICYCLE EDUCATION	CITY OF MORENO VALLEY	$0.00	6
44	MSRC	ML16083	23	INSTALL EV CHARGING STATIONS-CITY HALL AND METROLINK	CITY OF EL MONTE	$0.00	6
44	MSRC	MS12060	23	IMPLEMENT WESTSIDE BIKESHARE PROGRAM	CITY OF SANTA MONICA	$0.00	11
44	MSRC	MS14059	23	SIGNAL SYNCHRONIZATION PARTNERSHIP PROGRAM	RIVERSIDE COUNTY TRANSPORTATION COMM	$0.00	6
44	MSRC	MS14072	23	SIGNAL SYNCHRONIZATION PARTNERSHIP PROGRAM	SAN BERNARDINO COUNTY TRANSPORTATION	$0.00	6
44	MSRC	MS16030	23	PROGRAMMATIC OUTREACH SERVICES ON BEHALF OF THE MSRC	THE BETTER WORLD GROUP, INC	$0.00	11
44	MSRC	MS16093	23	IMPLEMENT MOBILE TICKETING SYSTEM	ORANGE CO TRANSPORTATION AUTHORITY	$0.00	6
44	MSRC	MS16096	23	EV CHARGING STATIONS	SAN BERNARDINO COUNTY TRANSPORTATION	$0.00	11
44	MSRC	MS18002	23	IMPLEMENT "GO HUMAN" PROGRAM	SOUTHERN CALIFORNIA ASSOCIATION OF GOVT	$0.00	6
					Subtotal	**$636,120.90**	
V. TERMINATED CONTRACTS-PARTIAL/NO WORK PERFORMED							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14267	81	PROP 1B TRUCK REPLACEMENT PROGRAM	VFT INC.	-$5,000.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15650	17	DEVELOPMENT AND DEMONSTRATION OF WAREHOUSE ROOFTOP SOLAR SYSTEM WITH STORAGE AND EV CHARGING	UNIVERSITY OF CALIFORNIA, SAN DIEGO	-$3,300.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16184	32	REPLACEMENT OF 3 OFF-ROAD VEHICLES	VIRAMONTES EXPRESS INC	-$59,873.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16193	32	REPLACEMENT OF 1 OFF-ROAD VEHICLE	BILL HIGGINS, INC.	-$123,191.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17200	32	REPLACE 6 OFF-ROAD AGRICULTURAL VEHICLES	COTTONWOOD DAIRY	-$67,451.00	7

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17237	01	ENGAGE, EDUCATE, AND EMPOWER CALIFORNIA COMMUNITIES ON THE USE AND APPLICATIONS OF "LOW-COST" AIR MONITORING SERVICES	CENTER FOR COMMUNITY ACTION &	-$32,000.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17343	01	3 YEAR LEASE OF HONDA CLARITY	AMERICAN HONDA MOTOR COMPANY INC	-$39.00	7
44	MSRC	ML11020	23	RETROFIT 1 ON-ROAD DIESEL VEHICLE AND REPOWER 1 OFF-ROAD HEAVY-DUTY VEHICLE	CITY OF INDIO	-$15,000.00	7
44	MSRC	ML11038	23	MAINTENANCE FACILITY MODIFICATIONS	CITY OF SANTA MONICA	-$400,000.00	7
44	MSRC	ML16008	23	PURCHASE 4 MEDIUM DUTY AND 9 HEAVY DUTY CNG VEHICLES	CITY OF POMONA	-$250,000.00	7
44	MSRC	ML16062	23	INSTALL EV CHARGING STATIONS	CITY OF COLTON	-$3,996.18	7
44	MSRC	ML16074	23	INSTALL CNG STATION	CITY OF LA VERNE	-$365,000.00	7
44	MSRC	MS12033	23	PURCHASE 20 MEDIUM-DUTY CNG VEHICLES	PHACE MANAGEMENT SERVICES LLC	-$351,100.00	7
44	MSRC	MS14078	23	INSTALL PUBLIC ACCESS CNG STATION	AMERICAN HONDA MOTOR COMPANY INC	-$150,000.00	7
					Subtotal	**-$1,825,950.18**	

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SPECIAL FUNDS

17 ADV. TECH, OUTREACH & EDU FUND
22 AIR QUALITY IMPROVEMENT FUND
23 MSRC FUND
27 AIR QUALITY INVESTMENT FUND
31 CLEAN FUELS FUND
32 CARL MOYER FUND - SB1107 ACCOUNT
33 SCHOOL BUS REPLACEMENT PROGRAM
34 ZERO EMISSION VEHICLE INCENTIVE PROGRAM
35 AES SETTLEMENT PROJECTS FUND
36 RULE 1309.1 PRIORITY RESERVE FUND
37 CARB ERC BANK FUND
38 LADWP SETTLEMENT PROJECTS FUND
39 STATE EMISSIONS MITIGATION FUND
40 NATURAL GAS VEHICLE PARTNERSHIP FUND
45 CBE/CBO SETTLEMENT AGREEMENT FUND
46 BP ARCO SETTLEMENT FUND
48 HEALTH EFFECTS RESEARCH FUND
49 CEQA GHG MITIGATION FUND
50 DOE ARRA-PLUG-IN HYBRID ELECTRIC VEHICLES
51 DOE ARRA-LNG CORRIDOR EXPANSION
52 TRAPAC SCHOOL AIR FILTRATION
53 EMISSION REDUCTION AND OUTREACH FUND
54 RULE 1118 MITIGATION FUND
56 HEROS II PROGRAM FUND
58 AB1318 MITIGATION FEES FUND
61 ADVANCED TECHNOLOGY GOODS MOVEMENT FUND
63 HYDROGEN FUELING INFRASTRUCTURE NETWORK FUND
71 CNG FUELING STATION ENTERPRISE FUND
80 CARL MOYER FUND - AB923 ACCOUNT
81 PROPOSITION 1B - GOODS MOVEMENT FUND
82 PROPOSITION 1B - LOWER EMISSION SCHOOL BUS

FOOTNOTES

1 NO FIXED VALUE
2 RATES VARY - NO FIXED VALUE
3 REVENUE CONTRACT - NO AMOUNT SHOWN
4 NO COST - COST REALLOCATION
5 CHANGED TO EMPLOYEE STATUS
6 NO COST- TIME EXTENSION
7 DE-OBLIGATION OF FUNDING
8 COMPETITIVE SOLICITATION ISSUED BY ANOTHER GOVERNMENT AGENCY
9 NO COST - AIR MONITORING/LICENSE AGR
10 CNG VEHICLE PARTNERSHIP SELECTION
11 NO COST - CHANGE IN TERMS
12 FEDERAL GOVERNMENT PASS-THRU
13 AT DIRECTION OF LEGISLATIVE COMMITTIEE
14 OPTIONAL YEAR RENEWAL/MULTI-YR CONTRACT
15 TRUCK GRANT PAID TO CASCADE SIERRA SOLUTIONS THROUGH LEASE-TO-OWN PROGRAM. THIS CONTRACT IS FOR OPERATION AND REPORTING ONLY.
16 AMOUNT UTILIZED MAY BE LESS THAN CONTRACT AMOUNT.

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 21

REPORT: Administrative Committee

SYNOPSIS: The Administrative Committee held a meeting on Friday, July 13, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Dr. William A. Burke, Chair
Administrative Committee

nv

Committee Members

Present: Dr. William A. Burke/Chair (videoconference), Mayor Ben Benoit/Vice Chair (arrived at 10:15 a.m.), Mayor Pro Tem Judith Mitchell, and Dr. Clark E. Parker, Sr. (videoconference)

Absent: None

Call to Order

Dr. Burke called the meeting to order at 10:00 a.m.

ACTION ITEM:

This item was taken out of order.

11. Execute Contract for Planning, Organizing, and Facilitating SCAQMD's Martin Luther King, Jr. Day of Service Forum and Cesar Chavez Day of Remembrance: Deputy Executive Officer/Legislative, Public Affairs & Media Derrick Alatorre reported that this item is to consolidate contracts for two events into one contract for the Martin Luther King, Jr. Day of Service Forum and Cesar Chavez Day of Remembrance. Three firms, Evan Brooks Associates, Inc., Fruition Multimedia, and the Lee Andrews Group were interviewed by the committee members. All three firms provided a brief presentation on their company's background and experience with event planning, outreach, etc. Dr. Burke recommended that this contract be for multiple years rather than one year

to enable the contractor to secure a venue in advance, which had been a challenge in the past. Mr. Bayron Gilchrist, General Counsel, reported that the contract can be for a two- or three-year period and that the Board letter can be updated to reflect that recommendation. Mayor Benoit joined the meeting [at 10:15 a.m.] while this item was in progress.

Motion was made to extend to a three-year contract; moved by Mitchell; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Mitchell, Parker
Noes:	None
Absent:	None

Motion was made to approve the Lee Andrews Group as contractor; moved by Mitchell; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Mitchell, Parker
Noes:	None
Absent:	None

DISCUSSION ITEMS:

1. **Board Members' Concerns:** None to report.

2. **Chairman's Report of Approved Travel:** As noted on the travel report, Mayor Pro Tem Mitchell will attend the CCEEB Summer Issues Seminar regarding air quality issues in Squaw Valley, CA, July 16-18, 2018. Mayor Pro Tem Mitchell will attend the monthly CARB Board meeting as the SCAQMD Board representative in Sacramento, CA, July 26-27, 2018.

3. **Report of Approved Out-of-Country Travel**: None to report.

4. **Review September 7, 2018 Governing Board Agenda**: Mr. Wayne Nastri reported that the public hearing for Rule 1469 will be held in September.

5. **Approval of Compensation for Board Member Assistant(s)/Consultant(s):** None to report.

6. **Report of RFPs Scheduled for Release in September:** Assistant Deputy Executive Officer/Finance Sujata Jain reported that this item is to request approval to release two RFPs for janitorial services and audit services for the AB 2766 audit.

7. **SCAQMD's Restricted Special Funds Update:** Mr. Nastri requested that this item be continued to September's Administrative Committee to allow adequate review time.

8. **Status Report on Major Ongoing and Upcoming Projects for Information Management:** Assistant Deputy Executive Officer/Information Management Ron Moskowitz reported that nine milestones for the E-GIS project have been completed and the final six milestones are on schedule. The new iPhone mobile application will be completed and ready for testing in approximately five weeks. The new Request to Speak application went live successfully at the July Board meeting. Mayor Benoit requested advance access to the iPhone mobile application when it goes through beta testing. Mr. Moskowitz responded that access will be provided in advance. Dr. Burke congratulated Information Management staff for the success of the Request to Speak application.

ACTION ITEMS:

9. **Issue Purchase Order for Ingres Relational Database Management System Software Support:** Mr. Moskowitz reported that this is a standard annual item to purchase a license for maintenance and systems software support for the CLASS system database. The funds for this expense are included in the FY 2018-19 budget.

   Moved by Mitchell; seconded by Benoit, unanimously approved.

Ayes:	Benoit, Burke, Mitchell, Parker
Noes:	None
Absent:	None

10. **Amend Classification of Career Development Intern, and Adopt New Classification of Source Testing Manager:** Assistant Deputy Executive Officer/Administrative & Human Resources John Olvera reported that this item refers to two job classifications. First, it is being proposed to revise the job classification for the Career Development Intern position. This position involves providing young adults who have transitioned from the foster care system with on-the-job training and experience. Having completed the third year of the program, there are changes that are being recommended to enhance the program: extending the internship from one year to two years; and expanding eligibility for the program to adults participating in vocational support programs with non-profit organizations. The second request is to add a job classification for a Source Testing Manager position, a position that was previously part of SCAQMD's work force, but was deleted in 2009 for budgetary reasons. This position is needed to manage and to lead staff involved in various source testing

programs. Funding for this position is included in this year's budget; however, the adoption of the classification will allow the promotional recruitment process to begin. Dr. Burke asked whether there would be a fiscal impact if the Career Development program was extended to three years. Mr. Olvera responded that there would be no fiscal impact; therefore, Dr. Burke recommended that the program be extended to three years. Dr. Parker inquired about the maximum number of interns allowed through the program. Mr. Olvera responded that the maximum allowance is pursuant to the number that is allocated into each year's budget. In the past three years, two positions were allocated in the budget each year, but that can be expanded in the future. Dr. Burke commented that he has asked Mr. Alatorre to reach out to a non-profit organization that deals with foster children to encourage young people to get involved.

Moved by Benoit; seconded by Mitchell as recommended with extending the maximum time to three years.

Ayes: Benoit, Burke, Mitchell, Parker
Noes: None
Absent: None

12. **Issue RFP for Legislative Representation in Washington, D.C.:** Mr. Alatorre reported that this item is to issue an RFP for legislative representation in Washington, D.C. There are currently three consultants in Washington, D.C., with their contracts expiring on January 14, 2019. This request is to start the RFP process to obtain proposals and to move forward with a recommendation to hire new consultants.

Moved by Parker; seconded by Mitchell, unanimously approved.

Ayes: Benoit, Burke, Mitchell, Parker
Noes: None
Absent: None

WRITTEN REPORT:

13. **Local Government & Small Business Assistance Advisory Group Minutes for the March 9, 2018 Meeting:** Mr. Alatorre reported that this item is a written report.

OTHER MATTERS:

14. **Other Business:**
There was no other business.

15. **Public Comment:**
There were no public comments.

16. **Next Meeting Date**
The next regular Administrative Committee meeting is scheduled for September 14, 2018 at 10:00 a.m.

Adjournment
The meeting adjourned at 11:14 a.m.

Attachment
Local Government & Small Business Assistance Advisory Group Minutes for the March 9, 2018 Meeting

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

LOCAL GOVERNMENT & SMALL BUSINESS ASSISTANCE ADVISORY GROUP
FRIDAY, MARCH 9, 2018
MEETING MINUTES

MEMBERS PRESENT:
Ben Benoit, Mayor Pro Tem, City of Wildomar and LGSBA Chairman
Paul Avila, P.B.A. & Associates
Geoffrey Blake, Metal Finishers of Southern California
LaVaughn Daniel, DancoEN
John DeWitt, JE DeWitt, Inc.
Bill LaMarr, California Small Business Alliance
Rita Loof, RadTech International
Eddie Marquez, Paramount Petroleum
David Rothbart, Los Angeles County Sanitation District

MEMBERS ABSENT:
Janice Rutherford, Supervisor, Second District, San Bernardino County
Felipe Aguirre
Rachelle Arizmendi, Mayor Pro Tempore, City of Sierra Madre
Todd Campbell, Clean Energy
Maria Elena Kennedy, Kennedy Communications
Cynthia Moran, Council Member, City of Chino Hills

OTHERS PRESENT:
David Czamanske, Board Member Consultant *(Cacciotti)*
Naresh Amatya, Southern California Association of Governments

SCAQMD STAFF:
Philip Crabbe III, Community Relations Manager
Nancy Feldman, Principal Deputy District Counsel
Laki Tisopulos, Ph.D., Deputy Executive Officer
Vicki White, Technology Implementation Manager
Ricardo Rivera, Sr. Staff Specialist
Elaine-Joy Hills, AQ Inspector II
Van Doan, AQ Inspector II
De Groeneveld, Sr. Information Technology Specialist

Agenda Item #1 - Call to Order/Opening Remarks
Chair Ben Benoit called the meeting to order at 11:32 a.m.

Agenda Item #2 – Approval of February 9, 2018 Meeting Minutes/Review of Follow-Up/Action Items
Chair Benoit called for approval of the February 9, 2018 meeting minutes. The minutes were approved unanimously.

Agenda Item #3 – Follow Up/Action Items
Mr. Philip Crabbe III provided responses to the February 9, 2018 action items.

Mr. Crabbe indicated that SCAQMD is not involved with BKK's landfill cleanup and has not performed any monitoring for at least twenty years. Also, a tour of SCAQMD laboratory will be agendized in a future meeting.

Mr. Paul Avila asked what SCAQMD's involvement is with BKK landfill. Mr. Crabbe replied there has been no activity. Chair Benoit stated that as the project develops, the Environmental Impact Report (EIR) would be reviewed by staff. Mr. Rothbart stated the Department of Toxic Substances Control (DTSC) is the lead agency, which has regulatory oversight over that facility.

Mr. Crabbe stated the last action item was to provide LGSBA members with the flyer regarding community meetings. That flyer was sent on Thursday, February 22, 2018 via email.

Ms. Rita Loof commented she previously requested a presentation on Rule 219 outreach activities relating to the printing industry and would like to submit that same request. She further commented the requirements in Rule 1469 are financially burdensome to the small- and medium-sized businesses in the metal finishing industry. Ms. Loof also stated the Los Angeles County Sanitation District (LACSD) hosted a symposium to provide information and requested that SCAQMD host something similar to that.

Mr. Avila requested information regarding the required sexual harassment training. Chair Benoit stated it is available online. Mr. Avila asked for information relating to SCAQMD's taxation authority. Mr. Crabbe stated that a topic related to that may be discussed at the Governing Board meeting on April 6, 2018.

Action Item: *Email advisory group sexual harassment training information.*

Agenda Item #4 – AB 134 & Carl Moyer Activities
Ms. Vicki White provided information regarding the adoption of AB 134 to fund community air quality projects and an update on Carl Moyer activities.

Mr. Bill LaMarr asked what the selection criteria for disadvantaged communities are, and if the selection is based on the contractor and their equipment or the location of the projects. Ms. White replied that these are mobile equipment, so they typically don't operate in one location. The California Air Resources Board (CARB) developed funding guidelines, which give us the ability to use CalEnviroScreen to determine if an address is located in a disadvantaged community. We also consider travel routes. If the equipment travels through or operates the majority of the time within a

disadvantaged community, the project could be credited as beneficial to that community. Mr. LaMarr stated from the contractor's point of view, qualification is uncertain and it is dependent on the type of project. Ms. White indicated that this program is a replacement program so we look at operational records for the past two years. The contractor who receives the funding must provide annual reports to show which area the equipment operates in. Mr. LaMarr further asked if the same approach is applied to a public works project, and if that project must be in a disadvantaged community or travel through one. Ms. White replied that the language says we have to justify, using operational records, which equipment operated the majority of the time within a census tract that has been identified as disadvantaged or low income. It is a census tract analysis, so if we can document it through operational records, we can qualify them.

Mr. David Rothbart asked how the CalEnviroScreen tool is being utilized. Ms. White replied that analysis has been done and established. Mr. Rothbart indicated it was intended to be a screening tool, but it is used as an absolute. Ms. White stated that CARB adopted and used it as the primary tool in all of its climate change investments.

Mr. John DeWitt asked if Ms. White is the contact for assistance. Ms. White responded she manages a team of nine staff, who work on the Carl Moyer Program, and any of them could provide assistance.

Agenda Item #5 – Update on New Source Review (NSR)

Dr. Laki Tisopulos provided a status report on Regulation XIII – New Source Review.

Mr. Avila asked if federal regulations are less stringent than SCAQMD regulations in Los Angeles (LA) County. Dr. Tisopulos responded with respect to stationary sources, SCAQMD regulations are more stringent than the state or federal regulations. Mr. Avila asked if that's true only in certain areas, such as areas near refineries. Dr. Tisopulos replied that it applies to all four counties. Mr. Avila suggested to look at LA County. Dr. Tisopulos stated in LA County, SCAQMD regulations are more stringent and refineries are cleaner than any refinery in the country. Mr. Avila asked if it is possible to follow federal regulations instead of SCAQMD regulations. Dr. Tisopulos replied no, the federal Clean Air Act (CAA) granted SCAQMD the ability to develop, adopt, and implement more stringent programs to improve air quality faster, and that has never been challenged.

Mr. Rothbart asked what the reason was for the reduction in nitrogen oxide (NOx). Dr. Tisopulos replied, as established within Rule 1315 and a commitment to the Environmental Protection Agency (EPA), when a newly adopted rule results in emissions reduction, the remaining balances are adjusted by the same percentage. Mr. Rothbart asked if the results meant it is being taken from the bank. Dr. Tisopulos replied no, it could be bought, but in this case, it was due to the adjustment. Mr. Rothbart stated he wanted to make sure the bank is solvent. Dr. Tisopulos replied yes, you would want to ensure the bank is solvent because the primary beneficiaries are the essential public services and businesses emitting less than four tons per year. It is also considered a potential alternative as the Regional Clean Air Incentives Market (RECLAIM) Program phases out. Mr. Rothbart asked if SCAQMD converts the emissions into RECLAIM Trading Credits (RTC) or Emissions Reduction Credits (ERC) when a RECLAIM facility shuts down. Dr. Tisopulos responded this doesn't include RECLAIM facilities; however, if a RECLAIM facility shuts down, those credits stay within the RECLAIM program. Mr. Rothbart asked if RTCs would be generated. Dr. Tisopulos replied they would remain as RTCs.

Mr. LaMarr asked if electrical generating facilities (EGF) have access to this bank. Dr. Tisopulos replied the bank is available to facilities emitting less than four tons annually, including essential public

services. EGFs or power plants emit more than that so Rule 1304.1 was developed to provide access to the bank in exchange for a mitigation fee. However, the bank is available for free to smaller businesses.

Mr. DeWitt asked if the air is better or not. Dr. Tisopulos replied yes, the air is better, and every pound of emissions is offset by 1.2-pounds of reductions.

Action Item: *Mr. Avila requested for a 5-10 minute presentation on the SCAQMD Federal Offset Bank.*

Ms. Loof asked how Best Available Control Technology (BACT) is incorporated into this program. Dr. Tisopulos replied when a facility shuts down, the reductions are discounted to the BACT level.

Agenda Item #6 – Update on Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS)

Mr. Naresh Amatya presented on the RTP/SCS, including details on environmental mitigation, goods movement, and transit.

Mr. Avila asked if SCAG and SCAQMD studies overlap and if one agency is preferred over the other. Mr. Amatya replied SCAG works very well with SCAQMD, and does not undertake any air quality studies. SCAG relies on SCAQMD's input on air quality matters. Dr. Tisopulos stated SCAG, CARB, and SCAQMD are co-authors of the Air Quality Management Plan (AQMP) and information provided by each agency are used.

Ms. Loof commented that some air quality policies relating to goods movement have the tendency to drive businesses out of this area. As a result, manufacturing facilities would manufacture products in another state or country and transport them to this area. Ms. Loof asked if there is an analysis of the economic impact of the exodus of industry and its relationship to emissions increase due to goods movement. Mr. Amatya replied that SCAG has done studies on the economic impact of goods movement and land use. However, Mr. Amatya is not aware of any studies regarding the exodus of businesses.

Mr. Avila asked if the decline in transit ridership means a decline in the use of buses. Mr. Amatya replied there is a slide addressing that.

Mr. DeWitt asked how tax regulations impact businesses and what impacts are projected due to businesses leaving the area. Mr. Naresh Amatya replied that those issues go beyond what SCAG can address. Mr. DeWitt indicated that on the new port rules SCAG is considering, there's a lot of competition and there seems to be some concern. Mr. Amatya stated SCAG works very closely with both Port of Long Beach and Port of Los Angeles. They encourage the ports to consider economic impacts.

Ms. Loof commented that the intent of the previous plan was to encourage people in high density areas to ride bicycles or take the bus. Ms. Loof asked how the plan is implemented when it is dependent on human behavior and requires public participation. Mr. Amatya replied that SCAG recognizes shifts in trends and that behaviors take time. The plan will continue to pursue strategies that identify key transportation corridors, and continue to invest in active transportation. SCAG will continue to set priorities to meet CARB's greenhouse gas target, which was 13% and likely increasing to 19%.

Ms. LaVaughn Daniel commented that a recent article indicated that 50% of smog in California results from transportation, and more than half of that is caused by gross polluters. Ms. Daniel asked if the plan addresses gross polluters. Mr. Amatya asked if gross polluters are stationary sources. Ms. Daniel replied mobile sources were gross polluters. Mr. Amatya responded that the goods movement sector contributes to the air quality challenges and there are steps being taken, including to aggressively pursue cleaner technologies and work with local communities to ensure that the goods movement system is working efficiently. Chair Benoit commented that smoking vehicles could be reported to SCAQMD using the 1-800-CUT-SMOG hotline.

Mr. Avila commented that used car prices have decreased. Mr. Avila asked if the population studies encompassed college graduates under 30 years-old. Mr. Amatya replied that SCAG does. The Generation X tend to be more adverse to using technology, but as they mature, they tend to revert back to cars.

Agenda Item #7 –Monthly Report on Small Business Assistance Activities
No comments.

Agenda Item #8 - Other Business

Mr. LaMarr inquired about the SBA report, and asked if there are still funds available in the Dry Cleaner Grant Program. Mr. Ricardo Rivera replied there is still money for professional wet cleaning.

Agenda Item #9 - Public Comment
No comments.

Agenda Item #10 – Next Meeting Date
The next regular Local Government & Small Business Assistance Advisory Group meeting is scheduled for Friday, April 13, 2018 at 11:30 a.m.

Adjournment
The meeting adjourned at 12:57 p.m.

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 22

REPORT: Legislative Committee

SYNOPSIS: The Legislative Committee held a meeting on Friday, July 13, 2018. The following is a summary of the meeting.

Agenda Item	Recommendation/Action
Proposed Sales Tax Increase Legislative Concept for Approval	SPONSOR IN CONCEPT

RECOMMENDED ACTION:
Receive and file this report, and approve agenda items as specified in this letter.

Judith Mitchell, Chair
Legislative Committee

DJA:PFC:MJK:jns

Committee Members

Present: Mayor Pro Tem Judith Mitchell/Chair, Dr. William A. Burke (videoconference) and Dr. Clark E. Parker, Sr. (videoconference)

Absent: Council Member Joe Buscaino/Vice Chair, Supervisor Shawn Nelson, and Supervisor Janice Rutherford

Call to Order

Chair Mitchell called the meeting to order at 9:05 a.m.

DISCUSSION ITEMS:

1. **Update on Federal Legislative Issues**
   SCAQMD's federal legislative consultants (Kadesh & Associates, Carmen Group, and Cassidy & Associates) each provided a written report on various key Washington, D.C. issues.

   Mr. Chris Kierig, federal legislative consultant, provided a brief update on SCAQMD's recent meetings in Washington, D.C. Mr. Kierig gave an update on the U.S. House Interior Appropriations Subcommittee bill, which funds the U.S. U.S. EPA, Diesel Emission Reductions Act (DERA) Program, and Targeted Airshed

Grant Program. This bill is scheduled to be heard on the House floor next week. If the House passes this bill, then the Senate is considering packaging this interior appropriations bill with three other appropriations bills to create a mini omnibus funding bill.

Mayor Pro Tem Mitchell noted a recent announcement that California has met its greenhouse gas emission reduction goals about two years early, and that U.S. Senator Dianne Feinstein showed great interest in this news.

Mr. Gary Hoitsma, federal legislative consultant, also reported on SCAQMD's recent meetings in D.C. He informed the Committee that Andrew Wheeler is the U.S. EPA's new Acting Administrator and that Mr. Wheeler appointed Henry Darwin to be the new Acting Deputy Administrator.

Mr. Hoitsma also stated that the Federal Highway Administration released its conditions and performance report on highway freight transportation. The report indicates that truck traffic is at record high levels now and will increase in the future.

In response to an inquiry from Mayor Pro Tem Mitchell regarding Andrew Wheeler, Mr. Hoitsma stated that there is a good likelihood that Andrew Wheeler will ultimately be President Trump's appointment for U.S. EPA Administrator.

Mr. Wayne Nastri, Executive Officer, responded to an additional inquiry from Mayor Pro Tem Mitchell by stating that no Senate confirmation is needed for the Acting Administrator appointment and that Andrew Wheeler can hold that position for up to 210 days.

Ms. Amelia Jenkins, federal legislative consultant, gave an update on the glider kit issue and stated that a scientific study on glider kits, conducted by Tennessee Tech, is now the subject of scrutiny. Ms. Jenkins stated that seven members on the U.S. House Science Committee, led by Congressman Lamar Smith of Texas, sent a letter to the U.S. EPA raising concerns with the study.

2. Update on State Legislative Issues

SCAQMD's state legislative consultants (Joe A. Gonsalves & Son, The Quintana Cruz Company, and California Advisors, LLC) provided written reports on key issues in Sacramento.

Mr. Jason Gonsalves, state legislative consultant, reported that the state Legislature is on summer recess until August 6 and that August 31 would be the final adjournment date for the current legislative session.

Ms. Roxana Bekemohammadi, state legislative consultant, reported that June 29 was the deadline for fiscal bills to be heard in policy committee and that July 6 was the deadline for nonfiscal bills to be heard in policy committee. Ms. Bekemohammadi also gave an update on various bills of interest to SCAQMD:

- AB 2506 (Burke), relating to the transition of state fleets to cleaner fuels, did not make it out of the Assembly Appropriations Committee in May;

- AB 2091 (Grayson), which is an omnibus bill relating to controlled burn management, made it through the Senate Committee on Natural Resources and Water on June 26 and will be heard in the Senate Appropriations Committee on August 6;

- AB 327 (Gipson) is sponsored by SCAQMD, and relates to transitioning public fleets within the South Coast region to cleaner fuels, made it through the Senate Environmental Quality Committee. However, the bill faced opposition from various stakeholders and was held without recommendation in the Senate Transportation and Housing Committee and thus failed passage; and

- SB 1260 (Jackson), which is also an omnibus bill relating to controlled burn management, passed out of its policy committee on June 27 and will be heard in Assembly Appropriations Committee when the Legislature reconvenes in August.

Mr. Jacob Moss, state legislative consultant, reported that it was a successful year with regard to obtaining Greenhouse Gas Reduction Fund monies.

ACTION ITEM:

3. Proposed Sales Tax Increase Legislative Concept for Approval

Mr. Philip Crabbe, Community Relations Manager, presented a draft legislative proposal to authorize a potential local sales tax increase ballot measure in the South Coast Air District.

As outlined in the 2016 AQMP, substantial and sustainable funding is needed in order to improve air quality in the South Coast Air Basin, to reduce public health risks and meet federal requirements. The proposed bill would seek authorization from the Legislature to put a quarter-cent sales tax increase proposal on the ballot for voter approval within the South Coast Air District.

The key focus of this proposal would be to help raise the needed funds, over a $1 billion per year over the next 13 years, to support the 2016 AQMP, and facilitate the significant reduction of air pollution in the South Coast.

Mr. Crabbe also noted that the bill would not directly create a ballot measure. Instead, it would only be an authorization bill to allow either South Coast Board action or the voter-driven initiative process to put this proposal on the ballot and therefore, would likely be a majority vote bill in the Legislature.

Staff has been given estimates that this proposal could generate up to $700 million per year for air pollution reduction within the South Coast.

Mr. Crabbe stated that a large portion of this funding would go to providing critically needed incentives to promote the development and deployment of clean technology, and accelerate fleet turnover from dirty, heavy-duty diesel trucks and other vehicles and equipment, to cleaner alternatives. This funding is needed to meet upcoming federal air quality deadlines, beginning in 2023, and to protect public health. The goal would be for this proposal to go on the ballot in 2020.

A public opinion poll commissioned by SCAQMD and conducted earlier this year found that residents were generally supportive of the use of incentives to help fund the transition to cleaner vehicles. This proposal would give voters the opportunity to decide, through the ballot process, if this proposed revenue-generating mechanism is an option that they would want to pursue to help achieve clean air.

Other air districts have expressed interest in this proposal and may co-sponsor this bill, if approved. Mr. Crabbe commented that, if approved, staff would keep the Committee updated regarding bill language and legislative developments regarding the proposal.

Ms. Barbara Baird, Chief Deputy Counsel, stated that this bill proposal, if approved by the Legislature and if a ballot proposition is enacted, could help SCAQMD meet U.S. EPA requirements regarding potential contingency measures due in 2020 and thus possibly help the region avoid sanctions.

Staff recommended a position of SPONSOR IN CONCEPT on this item.
Moved by Burke; seconded by Parker; unanimously approved.
Ayes: Burke, Mitchell, Parker
Noes: None
Abstain: None
Absent: Buscaino, Nelson, Rutherford

OTHER MATTERS:

4. **Other Business**
   There was no other business.

5. **Public Comment Period**
   There were no public comments.

6. **Next Meeting Date**
   The next regular Legislative Committee meeting is scheduled for Friday, September 14, 2018 at 9:00 a.m.

Adjournment

The meeting adjourned at 9:32 a.m.

Attachments

1. Attendance Record
2. Update on Federal Legislative Issues – Written Reports
3. Update on State Legislative Issues – Written Reports
4. Proposed Sales Tax Increase Legislative Concept for Approval

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
LEGISLATIVE COMMITTEE MEETING
ATTENDANCE RECORD – July 13, 2018

Dr. William A. Burke (videoconference)	SCAQMD Board Member
Mayor Pro Tem Judith Mitchell	SCAQMD Board Member
Dr. Clark E. Parker, Sr. (videoconference)	SCAQMD Board Member
Mark Abramowitz	Board Consultant (Lyou)
David Czamanske	Board Consultant (Cacciotti)
Ron Ketcham	Board Consultant (McCallon)
Andrew Silva	Board Consultant (Rutherford)
Roxana Bekemohammadi (teleconference)	The Quintana Cruz Company
Jason Gonsalves (teleconference)	Joe A. Gonsalves & Son
Gary Hoitsma (teleconference)	The Carmen Group
Amelia Jenkins (teleconference)	Cassidy & Associates
Chris Kierig (teleconference)	Kadesh & Associates
Jacob Moss (teleconference)	California Advisors, LLC
Priscilla Hamilton	Southern California Gas
Bill LaMarr	California Small Business Alliance
Rita Loof	RadTech
Susan Stark	Andeavor
Tammy Yamasaki	Southern California Edison
Derrick Alatorre	SCAQMD Staff
Leeor Alpern	SCAQMD Staff
Debra Ashby	SCAQMD Staff
Sam Atwood	SCAQMD Staff
Barbara Baird	SCAQMD Staff
Philip Crabbe	SCAQMD Staff
Amir Dejbakhsh	SCAQMD Staff
Philip Fine	SCAQMD Staff
Stacy Garcia	SCAQMD Staff
Bayron Gilchrist	SCAQMD Staff
Sujata Jain	SCAQMD Staff
Monika Kim	SCAQMD Staff
Megan Lorenz	SCAQMD Staff
Terrence Mann	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Ron Moskowitz	SCAQMD Staff
Wayne Nastri	SCAQMD Staff
Robert Paud	SCAQMD Staff
Sarah Rees	SCAQMD Staff
Mary Reichert	SCAQMD Staff
Jeanette Short	SCAQMD Staff
Lisa Tanaka O'Malley	SCAQMD Staff
Fabian Wesson	SCAQMD Staff
Jill Whynot	SCAQMD Staff
Paul Wright	SCAQMD Staff
Victor Yip	SCAQMD Staff
Andre Yeung	Student Intern

ATTACHMENT 2

SCAQMD
July 2018 Legislative Committee Board Meeting Report covering June 2018
Kadesh & Associates

Overview:
The House and Senate were in session for all four weeks of June. June was dominated with:
1- Ongoing consideration of House and Senate FY19 Appropriations;
2- The planning, execution and follow up for DC trip by senior executive SCAQMD staff;
3- Efforts to encourage EPA to commence an Ultra-Low NOx rulemaking; and
4- Preparation for SCAQMD Board Member fly-in for July.

DC Fly-in:
Senior Executive staff conducted three days of meetings/briefings with Congressional offices and agencies regarding SCAQMD focused on Ultra Low NOx regulations.

Appropriations:

Both the House and Senate Appropriations Committees continue their fast pace to markup all the FY19 appropriations bills prior to the July 4 recess. To date, the Senate committee has finished its markups, with the LHHS and DOD bills moving together last week. The House has yet to schedule its remaining bill, the DHS appropriations bill which cover ICE, immigration, and border issues. Recall, the FY19 top line number is $10 billion more than FY18; FY18 saw an increase of $63 billion in non-defense discretionary spending stemming from the Bipartisan Budget Amendment FY 18 legislation.

The Administration's recent policy changes – and reversals – on immigration have created political fallout, but that has not slowed the House/Senate consideration of legislation. Other bills awaiting action before the election include, Water Resources Development Act, Federal Aviation Administration, and the defense authorization conference report. The announced retirement of Justice Kennedy from the Supreme Court and the Administration's announced intent to nominate/confirm a replacement before the November election will absorb a great deal of legislative time and attention between now and the election.

Activities summary:
-Advance planning for the June Executive staff fly-in.
-Carried out executive staff fly-in.
-Ongoing analysis and response to EPA/NHTSA announcement regarding the CA Clean Air Act waiver and proposals to alter CAFE/ghg standards for MY2022-2025.
-Analyzed and shared information on FY19 appropriations process.
-Continued to monitor and pass on relevant legislation of interest to SCAQMD.
-Participated in regular conference call with subsequent follow up assignments.
-Answered specific questions from SCAQMD staff.
-Kept staff updated as to legislative changes, committee assignments and confirmations.
-Monitored and shared updates on Administration regarding budget, appropriations, Interior, EPA, transportation, and environmental policies and personnel.
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Carmen Group
INCORPORATED

MEMORANDUM

To: South Coast AQMD Legislative Committee

From: Carmen Group

Date: June 28, 2018

Re: Federal Update -- Executive Branch

Meetings on Ultra-Low NOx Issue with SCAQMD Staff in Washington, DC: On June 20-22, top SCAQMD staff participated in a series of meetings in Washington DC focused on advocacy efforts to advance a potential future U.S. EPA rulemaking to adopt an ultra-low NOx standard for heavy duty trucks, addressing one of SCAQMD's top federal priorities. Among these meetings were the following that our team arranged and participated in:

Business/Industry Groups: A roundtable with representatives of 13 business entities and related groups and trade associations focused largely on the U.S. trucking industry with special interest in developments surrounding the ultra-low NOx standard issue. These included trucking companies, engine and equipment manufacturers, and natural gas and vehicle efficiency groups, among others.

OMB-OIRA: Staff from the White House Office of Management & Budget Office of Information & Regulatory Affairs –Natural Resources and Environment Branch.

Congress: Staff from key Republican members representing non-attainment areas in the states of Illinois, Indiana, Missouri and North Carolina.

Governors: Staff from the DC offices of the Republican Governors of Maryland, Michigan and Wisconsin where additional non-attainment areas exist and air quality challenges are significant.

The meetings afforded SCAQMD an opportunity to further the process of educating and coordinating with potential allies in the effort to encourage EPA to make a decision to begin a formal rulemaking process. Inside EPA, career officials have recently been conducting some due diligence on the issue but must await an official green light from EPA Administrator and the Assistant Administrator for Air who are expected to be discussing the matter soon. It has been over 16-years since EPA last addressed the issue, adding to the urgency that it is past time for the Agency to act.

DOT Announces INFRA Grants: In June, the US Department of Transportation announced the distribution of $1.5 billion to 26 projects under its INFRA grant discretionary program addressing major highway mobility, transportation and freight movement efficiency and environmental protection issues. A majority of the selected projects in this round were in rural areas, reflecting Trump admiration priorities. A new round of INFRA grant funding availability is expected to be announced later this summer.

FAA Announcing AIP (Airport) Grants: The Federal Aviation Administration (FAA) this summer is in the process of announcing a total of $3.2 billion in grants under the Airport Improvement Program (AIP), part by formula and part discretionary. In all, hundreds of grants are being awarded for infrastructure projects that include runways, taxiways, aprons and terminals, including some that address environmental and air quality issues at airports.

FTA Announces Bus Grant Availability: The Federal Transit Administration (FTA) announced in June that over $366 million in FY 2018 funding would be available for Bus and Bus Facilities grants. Eligible projects would involve the replacing, rehabilitating, leasing or purchasing of buses and related equipment as well as projects to construct or lease bus related facilities, such as buildings for bus storage and maintenance. Applications are due August 6, 2018.

EPA Announces Proposed Biofuels Requirements: In a proposed rulemaking announced in June under the Renewable Fuel Standard (RFS) program, the EPA started the annual process for setting the minimum amount of renewable fuels that must be blended into the Nation's fuel supply. EPA implements the RFS program in consultation with the Departments of Agriculture and Energy.

DOE Seeks Feedback on Barriers to Hydrogen Infrastructure: In June, the Department of Energy announced a new Request for Information (RFI) that will allow stakeholders to weigh in and help reduce regulatory barriers on the development of hydrogen energy infrastructure. DOE hopes to identify priority research and development areas and potential courses of action to remove regulatory in order to reduce hydrogen deployment time and cost. Comment period closes on August 10, 2018.

Subcabinet Appointments of Note:

CEQ: Mary Neumayr of Virginia has been nominated to be **Chair of the White House Council on Environmental Quality.** She currently serves as CEQ Chief of Staff and previous served eight years in a variety of staff positions at the House Energy & Commerce Committee including as deputy chief counsel for energy and environment. She also served as deputy counsel for environment and nuclear programs at the Department of Energy during the George W. Bush administration.

DOE: Daniel Simmons of Virginia was nominated to be **Assistant Secretary for Energy, Efficiency, and Renewable Energy (EERE**). He currently is deputy assistant secretary at EERE. He previously was Vice President for Policy at the Institute for Energy Research and earlier was professional staff on the House Resources Committee.

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CASSIDY&ASSOCIATES
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(202) 347-0773
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To: South Coast Air Quality Management District

From: Cassidy & Associates

Date: June 29, 2018

Re: Federal Update

Issues of Interest to SCAQMD

Recent Congressional Actions

The House voted on a three-bill appropriations minibus containing the Energy and Water, Military Construction and Veterans Affairs, and Legislative Branch subcommittees of the Appropriations Committee. The bill passed 235 – 179. Subsequently, the bill was taken up by the Senate on 6/25 and was passed 86-5.

Of note, the legislation repeals the Obama-era Clean Water Rule, which would have expanded the Environmental Protection Agency's regulatory jurisdiction over U.S. bodies of water, along with cuts to clean-energy programs and endangered-species protections.

While the Senate has not announced when it will name its conference members, if the chamber does so the week following the Fourth of July break, that will give appropriators and staff about three months to reach agreement on final versions of the bills and get them signed into law before the new fiscal year begins on Oct. 1.

June Trip Summary

Cassidy & Associates helped plan and execute a key meeting between SCAQMD staff and health and environmental advocates. Representatives from American Lung Association, Union of Concerned Scientists, the Asthma and Allergy Network, and the Environment Policy and Law Center attended an hour long roundtable to discuss the pending NOx rule. The meeting was useful to share information on the priorities of each organization relative to clean air and discuss a path forward on a new rule for NOx emissions. Cassidy & Associates is helping SCAQMD continue to share information in hopes of working together to urge EPA to move forward with a rulemaking. In addition to this coalition meeting, Cassidy & Associates scheduled meetings with House Members from Arizona and Democratic Whip Steny Hoyer (D-MD).

Senate Energy and Natural Resources Update

On June 12, SENR held an oversight hearing of the Federal Energy Regulatory Commission, during which many members of the committee addressed the Administration's plan to bail out financially struggling coal and nuclear plants to stop any more from closing.

Recently, the White House has outlined plans to move towards invoking its national security powers to manage the nation's power grid. The FERC is in the middle of a review of the power grid to see what impact the growing number of coal and nuclear plant closures might have and if new natural gas plants and solar and wind farms would be able to cover the potential shortfall.

On June 26th, SENR held a nominations hearing for 4 nominees to DOE, including most notable for SCAQMD's interests, Mr. Daniel Simmons to be the Assistant Secretary of Energy for Energy Efficiency and Renewable Energy (EERE), which oversees DOE's $2.32 billion applied research program in energy efficiency and renewable energy.

Mr. Simmons currently serves as the acting head of EERE. In the past he has questioned the federal government's support of technologies such as wind energy and has urged the federal government to speed the permitting of fossil fuel exploration.

Once confirmed, we recommend that SCAQMD invite Mr. Simmons to visit South Coast Headquarters and meet with the Board and staff members as well as take a tour of the region to learn about how energy efficiency advancements are key to SCAQMD achieving their goals.

The Energy and Natural Resources Act remains stalled on the floor of the Senate. This package includes the Vehicle Innovation Act that authorizes new funding for vehicle technology at $250 million per year through the Department of Energy.

We continue to encourage South Coast to write a letter of support for the Vehicle Innovation Act, and further, we believe that it would be worthwhile to seek a Senate sponsor to introduce a standalone version of this legislation.

Senate Environment and Public Works Committee

During June, the Environment and Public Works Committee committed the majority of its time towards issued related to water infrastructure and autonomous vehicles. On the topic of autonomous vehicles, the Committee held a hearing with officials from the New York City Department of Transportation as well as the Center for Advanced Automotive Research (amongst others) to explore how and whether full-scale deployment of autonomous vehicle technology could further strain the resources of transportation authorities. The Committee also heard testimony that the technology could have some collateral benefits as well as damages to the level of emissions from vehicles. Finally, the Committee held a confirmation hearing on nominees for the position of assistant administrator for the Office of International and Tribal Affairs and assistant administrator for the Office of Land and Emergency Management.

Infrastructure Update

Both House T&I and Senate EPW have passed their respective Water Resource Development Act (WRDA) bills, with the full House passing an amended version by a vote of 408-2. While both bills contain similar provisions addressing policy and project reform, they are significantly different in many aspects which may make reconciliation difficult should the Senate pass their version out of the Senate. A time agreement for debate on Senate WRDA was recently proposed that would likely bring the bill to the Senate floor for consideration after the July 4th Congressional recess. When the Senate passes their bill, staff on the requisite committees of jurisdiction from both chamber will enter into a conference to negotiate provisions and reconcile differences.

Cassidy & Associates believes a conference will take approximately 3-4 months, with the likelihood of final reconciliation and consideration in both chambers sometime after the November election. There is a slight possibility final consideration could occur before the November election.

House Committee Report

On June 22 the House Science Committee's Subcommittee on Environment held a hearing on State Perspectives on Regulating Background Ozone. The Majority and its witnesses largely worked to draw out the theory that 70 ppb NAAQS standards are unattainable because background ozone is too high. Elena Craft of the Environmental Defense Fund testified as the Democratic witness. While the purpose of the hearing from the Chairman's perspective is presumably to build a case for a rollback of the 70 ppb standard, the arguments about background ozone being "out of local control" could actually help support a case for low-NOx truck standards.

On May 24, Rep. Markwayne Mullin (R-OK) released HR 5959, the Natural Gas Parity Act, which would support RD&D on natural gas vehicles, an extension of the alternative fuels tax credit and credits for new natural gas trucks, and other strategies for advancing commercialization of natural gas vehicles.

On June 26th, the House Energy and Commerce Committee held a hearing entitled "The Shifting Geopolitics of Oil and Gas." The headline witness was Harold Hamm, CEO of Continental Resources. There were two other oil company representatives and Kevin Kennedy from World Resources Institute. The testimony largely focused on supply and demand issues related to oil and gas. Ranking Member Frank Pallone (D-NJ) criticized the emphasis of the current Administration on oil and gas development offshore and raised concerned with EPA's lack of progress on clean air issues.

Environmental Protection Agency Updates

On June 25, the EPA announced it will formally begin review of the 2015 Ozone standards. The review will include evaluation of air quality standards for ozone and five other common pollutants. An outside panel, the Clean Air Scientific Advisory Committee, will provide feedback on adverse impacts to "public health, welfare, social, economic, or energy effects." The evaluation of factors other than public health drew a sharp rebuke from over 70 House Democrats who view the scope of the Committee as "illegal and immoral."

On June 29th, EPA Air Chief Wehrum and EPA Administrator Pruitt met with CARB Chair Mary Nichols. In press statements regarding this meeting, both indicated that they would not offer "concessions" to California over vehicle emission standards before issuing a proposal to modify federal regulations. A leaked version of the proposed fuel efficiency standards included policy to block California for enforcing higher greenhouse gas standards.

ATTACHMENT 3

Joe A. Gonsalves & Son
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Jason A. Gonsalves
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TO: South Coast Air Quality Management District

FROM: Anthony, Jason & Paul Gonsalves

SUBJECT: Legislative Update – June 2018

DATE: Friday, June 29, 2018

BUDGET

During the month of June, the Legislature was focused on the State budget. On June 14, 2018, the Legislature adopted a $136.8 billion 2018-19 state budget, one day prior to the June 15th Constitutional deadline. On June 25, 2018, the Legislature passed SB 856, a budget trailer bill which included the allocation of cap and trade (GGRF) funds. On June 27, 2018, Governor Brown signed the main budget bill along with a number of budget trailer bills, including SB 856.

The budget makes investments in schools and universities, creates the state's first online community college, fully fills the Rainy-Day Fund, boosts child care, and combats homelessness and poverty.

One of the largest pieces of the budget deal was $500 million in emergency aid to local governments and nonprofit organizations to address California's homelessness crisis. The compromise includes one-time spending on emergency aid block grants to help cities and counties reduce homelessness. The grants can be used on a range of

programs, including housing vouchers and shelter construction. It doubles what the governor proposed spending on the grants from surplus state revenue in his May Revise.

The Governor and legislative leaders also agreed to place a bond measure on the November ballot for $2 billion to house people who are homeless or at risk of losing their homes.

Other noteworthy provisions in all that fine print include bills that would:

- Exempt, until July 2020, local governments and school boards from having to list how much money would be raised by bond measures.
- Extends carpool lane permits for low- and zero-emission vehicles until Jan. 1, 2022.
- Sets aside $630 million for the state to tear down and rebuild the Capitol Annex.
- Opens up the state's Earned Income Tax Credit to all adult citizens (previously, it was only available for those between 25-65 years old).

CAP AND TRADE

On June 25, 2018, the Legislature adopted SB 856, which appropriates funding in the following manner:

1) Appropriates funding from the Greenhouse Gas Reduction Fund (GGRF):
   a. $20 million to the California Natural Resources Agency (CNRA) for urban greening programs.
   b. $20 million to CNRA for landscape-level forest health projects to expand the Sierra Nevada Conservancy's Watershed Improvement Program model to the Northern, Coastal, and Southern California regions.
   c. $21.165 million to the Governor's Office of Planning and Research, as follows:
      - $1.165 million for the Affordable Housing and Sustainable Communities Program.
      - $18 million for research on reducing carbon emissions
      - $2 million for technical assistance to disadvantaged communities.

d. $40 million to the Strategic Growth Council for the Transformative Climate Communities Program.
e. $25 million to the Governor's Office of Emergency Services for the procurement and maintenance of fire engines and support of the California Fire and Rescue Mutual Aid System.
f. $8.513 million to the California Conservation Corps for the training and work program.
g. $12.5 million to the California Energy Commission (CEC) for low carbon fuel production.
h. $68 million to the CEC for energy efficiency food processor projects and renewable energy projects in the agricultural sector.
i. $165 million to CalFire for healthy forest and fire prevention programs and projects that improve forest health and reduce GHG emissions caused by uncontrolled wildfires.
j. $30 million to CalFire for prescribed fires.
k. $5 million to the Department of Fish and Wildlife for wetland restoration projects.
l. $1.5 million to the California Coastal Commission for the Coastal Management Program.
m. $3 million to the State Coastal Conservancy for the Climate Ready Program.
n. $500,000 to the San Francisco Bay Conservation and Development Commission for Bay conservation and development local assistance.
o. $645 million to CARB as follows:
    - $112 million for reducing agricultural sector emissions by providing grants, rebates, and other financial incentives for agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other diesel equipment used in agricultural operations.
    - $125 million for the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project.
    - $75 million for the Enhanced Fleet Modernization Program and Plus-Up Pilot Project, replacement of school buses, and light-duty equity pilot projects.

- $55 million for the Freight Equipment Advanced Demonstration and Pilot Commercial Deployment Project.
- $3 million for the Woodsmoke Reduction Program.
- $245 million for incentives to reduce mobile and stationary sources of criteria air pollutants or toxic air contaminants in disadvantaged communities.
- $20 million for local air districts' implementation of AB 617.
- $10 million for technical assistance grants to community-based organizations in disadvantaged communities.

p. $200 million to CARB for the Clean Vehicle Rebate Project.
q. $25 million to the Department of Resources Recycling and Recovery for Waste Diversion and GHG Reduction Financial Assistance programs.
r. $500,000 to the Department of Community Services and Development for energy programs administrative costs.
s. $9.5 million to the Department of Community Services and Development for low-income solar and multi-family weatherization programs.
t. $104 million to the Department of Food and Agriculture, as follows:
    - $99 million for dairy digester research and development, and alternative manure management.
    - $5 million for the Healthy Soils Program.

2) Appropriates funding from the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Fund (Proposition 68) to the Wildlife Conservation Board, as follows:

- $10 million for wildlife corridor infrastructure projects.
- $10 million for wildlife conservation projects.
- $10 million for the upper watershed lands in the Sierra Nevada and Cascade Mountains.
- $150,000 for a grant to Trinity County for watershed protection.
- $150,000 for a grant to the City of Los Angeles for Los Angeles River greenways restoration in Studio City.

- $3 million to DWR for the San Joaquin Flood Control Agency Smith Canal Gate.
- $22 million to DWR for the Southport Setback Levee.

3) Appropriates $30 million from the Air Pollution Control Fund to CARB for local air districts' implementation of AB 617 (C. Garcia, Chapter 136, Statutes of 2017).

4) Appropriates $20 million from the California Tire Recycling Management Fund to CARB for local assistance to reduce agricultural sector emissions for agricultural harvesting equipment, heavy-duty trucks, agricultural pump engines, tractors, and other diesel equipment used in agricultural operations.

5) Appropriates $134.5 million from the Alternative and Renewable Fuel and Vehicle Technology Fund.

6) Appropriates $426.6 million in additional federal transportation funds, including $241.6 million in emergency federal funds for disaster response.

CAP AND TRADE: ONTARIO IN OR OUT?

On June 27, 2018, the announcement of Ontario's impending withdrawal from the bi-national cap-and-trade program, after less than a year of partnership, sent ripples through the State Capitol. The exit of California's largest emissions trading partner may have to do with politics more than policy, but the effects are no less.

The incoming Premier of Ontario, Doug Ford, said he will move quickly to decouple the province from the trading program, calling a carbon tax a bad deal for Canadians. This announcement comes just a couple of months before California is set to showcase its cap-and-trade program when it hosts an international climate summit in San Francisco. This development does not help as Governor Brown continues to shop the alliance to other states and countries.

In the short term, the damage to the market appears minimal as traders said the pullout

briefly unsettled the market. But quick action by officials to suspend transfers with Ontario helped stabilize prices. That leaves Quebec still partnering with California, and Ontario's market share was much larger than Quebec's. However, many believe that a slimmed-down emissions market can withstand Ontario's departure.

The Premier-elect will be sworn in on Friday and said in a press release that he would make good on his vow. Although Ontario's intent to leave is clear, nothing is going to happen fast. Repealing the cap and trade system requires Parliamentary action and the timetable for Ontario to depart from the emissions trading market is less certain. There doesn't appear to be an identified mechanism to de-link a trading partner.

The international agreement says that any party wishing to withdraw should "endeavor to give 12 months' notice" and should likewise try to withdraw at the end of a compliance period, which in this case would be in 2021. But the document offers no details as to how that complicated pact becomes undone.

California is continuing to engage with the current elected and appointed officials in Ontario to prevent Ontario from not participating in the next auction scheduled for August 14. Additionally, California is trying to understand the impact of Ontario's exit and the possibility of a flood of allowances on the market in California, leading to less incentive to reduce real emissions.

We will continue to keep you apprised as the State reacts to this announcement.

AB 2453 (E. GARCIA) AIR POLLUTION: SCHOOLS.

Existing law Requires CARB to establish Community Emissions Reductions Programs (CERP) for the purposes of reducing emissions of toxic air contaminants and criteria air pollutants. Existing law also establishes school modernization appointment funds, which may be used for improvements to extend the useful life of, or to enhance the physical environment of, the school, including, but not limited to, maximizing indoor air quality,

but may not be used for routine maintenance and repair.

AB 2453 clarifies that a modernization apportionment may be used to limit pupil exposure to harmful air pollutants by updating air filtration systems. Additionally, the bill would permit a school or school district located in a community identified as a qualifying community for a CERP to:

- work with local air districts to identify school sites for air quality adaptation efforts.
- Be eligible for a grant, as a part of a CERP, that implements air quality mitigation efforts, including, but not limited to, air filter upgrades or installations and vegetation buffer planting.

On June 20, 2018 AB 2453 was heard in the Senate Environmental Quality Committee. The Committee felt that there is no ambiguity in the meaning of existing law regarding the fact that school modernization apportionments may be used to limit pupil exposure to harmful air pollutants by updating air filtration systems. Additionally, they did not believe there is any conflicting case law regarding this point and recommended the removal of Section 1 from the bill altogether. The author, however, did not want to remove this language from the bill and argued that his intent in enacting this declaratory statute is to encourage schools to use their modernization apportionments for the purpose of limiting pupil exposure to harmful air pollutants by updating air filtration systems. As a compromise, the author offered the following amendment to paragraph (2) of subdivision (c) in section 1 of AB 2453:

(2) This subdivision is declaratory of existing law. In enacting this statute, it is the intent of the Legislature to encourage school districts to add air filtration systems to applications for modernization apportionments when air pollution occasionally or regularly exceeds levels known to be harmful to public health.

AB 2453 passed out of the Senate Environmental Quality Committee on a 7-0 vote. The bill is now headed to the Senate Appropriations Committee, which will take place after the Legislative Summer Break.

We will continue to work closely with the Author's office and keep you apprised as the issue progresses.

2018 LEGISLATIVE DEADLINES

June 1 Last day for each house to pass bills introduced in that house.

June 4 Committee meetings may resume.

June 15 Budget Bill must be passed by midnight.

June 28 Last day for a legislative measure to qualify for the Nov. 6 General Election ballot.

June 29 Last day for **policy committees** to hear and report **fiscal bills** to fiscal committees.

July 6 Last day for **policy committees** to meet and report bills.

Aug. 17 Last day for **fiscal committees** to meet and report bills.

Aug. 20-31 Floor session only. No committee may meet for any purpose except Rules Committee.

Aug. 24 Last day to **amend** on Floor.

Aug. 31 Last day for each house to pass bills. **Final Recess** begins on adjournment.

June 28, 2018

TO: South Coast Air Quality Management District
FROM: The Quintana Cruz Company
RE: June 2018 Report

LEGISLATIVE ITEMS OF NOTE:

AB 2506 (Burke) State vehicle fleet: near-zero-emission vehicles.

The bill was last amended on April 19, 2018. The bill now mandates that at least 15% of new vehicles with a gross vehicle weight rating (GVWR) of 19,000 pounds or more purchased by state agencies must be fueled by renewable natural gas beginning on January 1, 2022. In contrast, the bill prior to the recent amendment required that at least 30% of newly purchased vehicles with a 19,000 GVWR or more be near-zero-emission by January 1, 2020. The bill was held in Assembly Appropriations.

Status: Dead - Held in Assembly Appropriations.

AB 2091 (Grayson) Fire prevention: prescribed burns.

The bill was last amended on April 16, 2018. The bill renames the Board of Forestry and Fire Protection as the Board of Forestry and Fire Prevention and Protection. It also requires the Board of Forestry and Fire Prevention and Protection to establish standards for prescribed burning and certify prescribed burn managers.

Status: Do pass as amended in Senate Committee on Natural Resources and Water on June 26 and re-referred to the Senate Committee on Appropriations.

AB 327 (Gipson) South Coast Air Quality Management District: fleets.

Assemblymember Gipson amended AB 327 on June 4, 2018 to authorize the governing board of the south coast district to adopt rules and regulations that require specified operators of public fleet vehicles consisting of 15 or more vehicles to purchase the cleanest commercially available vehicles, as defined, that will meet the operator's operational needs; to require the replacement of no more than 15% of existing vehicles per calendar year, as specified; and to require those cleanest commercially available vehicles to be operated, to the maximum extent feasible, in the south coast district.

Status: Do pass in Senate Committee on Environmental Quality on June 20 and re-referred to the Senate Committee on Transportation and Housing (to be heard on July 3).

SB 1260 (Jackson) Fire prevention and protection: prescribed burns.

This bill was last amended on June 18, 2018. It would require the local agency to transmit a copy of the adopted ordinance to the State Board of Forestry and Fire Protection within 30 days of adoption. By imposing a new duty on a local agency, the bill would impose a state-mandated local program.

Status: Do pass as amended in Assembly Committee on Local Government on June 27 and re-referred to the Assembly Committee on Appropriations.

CALIFORNIA ADVISORS, LLC

SCAQMD Report
California Advisors, LLC
July 13, 2018 Legislative Committee Hearing

General Update

On June 27, 2018 the Governor signed the 2018-19 state budget deal as well as a number of related trailer bills. Included in these related trailer bills was the Greenhouse Gas Reduction Fund (GGRF) deal. The full GGRF deal is included at the end of this report. Highlights of the deal include:

- $245 million for AB 617 incentives for the Carl Moyer Memorial Air Quality Standards Attainment program & Proposition 1B with qualifying language (see below)
- $50 million per year for two years for AB 617 implementation ($30 million from the Air Pollution Control Fund and $20 million from GGRF funds for the first year)
- $132 million ($20 million from the Tire Recycling Management Fund and $112 million from GGRF) for the Agricultural Diesel Replacement program with qualifying language (see below)

AB 617 Incentives Qualifying Language ($245 million)

The funds shall be available to local air districts as distributed by the State Air Resources Board and shall be for projects that complement and further the rules and regulatory requirements that the State Air Resources Board and air districts have established or are in the process of developing to reduce or mitigate emissions from mobile and stationary sources in affected communities pursuant to section 44391.2 of the Health and Safety Code. As such, the funds shall be allocated for projects that are intended to benefit communities that the State Air Resources Board has selected or is considering for selection in future years pursuant to that section.

(a) Funds shall be allocated to projects consistent with priorities identified by the affected community in a transparent, meaningful public process.

(b) Funds shall only be allocated to projects that will provide emission reductions that are in excess of those otherwise required by law or regulation.

The following are eligible projects to be funded by local air districts from funding in Provision 3(a) of this item for the benefit of communities that the State Air Resources Board has selected or is considering for selection in future years of the program pursuant to section 44391.2 of the Health and Safety Code:

(a) Financial assistance for the purchase of cleaner technologies with a priority on zero-emission equipment either through the Community Air Protection Fund Supplement to the Carl Moyer Memorial Air Quality Standards Attainment Program (Chapter 9 (commencing with

Section 44275) of Part 5 of Division 26 of the Health and Safety Code) or in accordance with the board's Proposition 1B guidelines relative to funding amounts and truck evaluations.

(b) Zero-emission charging infrastructure with a priority towards infrastructure that supports medium- and heavy-duty vehicles.

(c) Financial assistance to owners of stationary sources that are not subject to the requirements adopted by the state board pursuant to subdivision (c) of Section 38562 of the Health and Safety Code for replacement of equipment with technologies that will result in direct emission reductions of toxic air contaminants and criteria air pollution, including zero-emission technologies. The board may contract with the Treasurer to expend these funds through programs implemented by the Treasurer, including the California Pollution Control Financing Authority.

In addition to the eligible projects identified in Provision 5, the State Air Resources Board may fund a program developed by a local air district with community input through a public process so long as the program is consistent with the actions identified in the applicable community emission reduction program pursuant to Section 44391.2 of the Health and Safety Code.

Agricultural Diesel Qualifying Language ($132 million)
Funding for agricultural diesel replacement and upgrades shall be based on criteria that include the following:

(a) The diesel particulate matter emissions and exposures in an air district.

(b) The NOx and PM 2.5 emissions and attainment status in each district.

2018 Other Legislative Priorities

SB 1502 (Senate Environmental Quality) Electronic public notice authorization.
SB 1502 authorizes air districts to utilize electronic communications in lieu of paper mail with regard to public notices for public hearings and workshops.

STATUS: SB 1502 was signed by the Governor on June 28, 2018.

SB 210 (Leyva) Heavy-duty vehicle inspection and maintenance program.
This bill would authorize the state board to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for non-gasoline heavy-duty on-road motor vehicles.

STATUS: The author has decided not to move the bill this year.

2018-19 Cap and Trade Expenditure Plan (Dollars in Millions)

Investment Category	Department	Program	Amount
Air Toxic and Criteria Air Pollutants	Air Resources Board	AB 617 - Community Air Protection	$245
		AB 617 - Local Air District Implementation ($50 million total, including other funds)	$20
		Technical Assistance to Community Groups	$10
Low Carbon Transportation	Air Resources Board	Clean Vehicle Rebate Project	$175
		Clean Trucks, Buses, & Off-Road Freight Equipment	$180
		Enhanced Fleet Modernization Program, School Buses & Transportation Equity Projects	$100
	Energy Commission	Low Carbon Fuel Production	$12.5
Climate Smart Agriculture	Air Resources Board	Agricultural Diesel Engine Replacement & Upgrades ($132 million total, including other funds)	$112
	Energy Commission	Energy Efficiency	$64
	Department of Food and Agriculture	Healthy Soils	$5
	Energy Commission	Renewable Energy	$4
Healthy Forests	CAL FIRE	Healthy & Resilient Forests	$160
	CAL FIRE	Forest Carbon Plan: Prescribed Fire & Fuel Reduction	$30
	Natural Resources Agency	Forest Carbon Plan: Northern, Coastal, and Southern California Regional Forest Health Projects	$20
	CAL FIRE	Urban Forestry	$5
	CalOES	Local Fire Response	$25
Short-Lived Climate Pollutants	Department of Food and Agriculture	Methane Reduction	$99
	Air Resources Board	Woodstoves	$3
	CalRecycle	Waste Diversion	$25
Integrated Climate Action: Mitigation & Resilience	Strategic Growth Council	Transformative Climate Communities	$40
	Natural Resources Agency	Urban Greening	$20
	Multiple Departments	Coastal Resilience	$5
	Department of Fish and Wildlife	Wetlands Restoration	$5
	Community Services & Development	Low-Income Weatherization	$10
	California Conservation Corps	Energy Corps	$6
Climate and Clean Energy Research	Strategic Growth Council	California Climate Change Technology and Solutions Initiative & Technical Assistance	$20
	Total		**$1,400**

ATTACHMENT 4

SCAQMD Draft Legislative Proposal to Authorize a Potential Local Sales Tax Increase Ballot Measure in the South Coast Air District

Problem: The South Coast Air Basin has among the worst air quality in the nation and is in extreme nonattainment for ozone, based on federal air quality standards. Our 2016 Air Quality Management Plan (AQMP) addresses this daunting problem, however, it requires substantial and sustainable funding over the next 14 years in order to improve air quality to levels that meet federal air quality standards and reduce the existing significant public health risk.

Summary: This bill proposal would seek authorization from the Legislature, to, either through South Coast Board action or through the voter initiative process, put a quarter-cent sales tax increase proposal on the ballot within the South Coast Air District, for voter approval, in order to raise funds to facilitate the significant reduction of air pollution in the South Coast region, in support of the 2016 AQMP.

This would only be an authorization bill to allow either SCAQMD Governing Board action or a voter driven petition ballot initiative to put this proposal on the ballot. This bill would not directly create a ballot measure.

The key focus of this proposal would be to help raise the needed funds, $1 billion per year over the next 14 years, required to support the 2016 AQMP. It is still being explored as to whether this proposal could be expanded to include other large local air districts throughout the state as well.

This proposal could generate up to $700 million on an annual basis for air pollution reduction within the South Coast region, which would go a long way towards solving the air pollution problem. A large portion of this funding would go to providing incentives to businesses to promote the development and deployment of clean technology and facilitate fleet turnover from dirty, heavy-duty diesel trucks and other vehicles to cleaner alternatives.

The goal would be for this proposal to go on the ballot in 2020.

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 23

REPORT: Mobile Source Committee

SYNOPSIS: The Mobile Source Committee held a meeting on Friday, July 20, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Dr. Clark E. Parker, Sr., Chair
Mobile Source Committee

PMF:AF

Committee Members

Present: Dr. Clark E. Parker, Sr./Chair (videoconference), Dr. Joseph Lyou/Vice Chair (arrived at 9:14 a.m.), Mayor Pro Tem Judith Mitchell, and Supervisor Hilda L. Solis (videoconference)

Absent: Supervisor Marion Ashley, Mayor Larry McCallon

Call to Order

Chair Dr. Parker called the meeting to order at 9:00 a.m.

ACTION ITEM:

1. **Appropriate Funds, and Issue RFP to Assess Potential Cost and Economic Impacts of Proposed Facility-Based Mobile Source Control Measures on Warehouses and Distribution Centers**

   Dr. Sarah Rees, Assistant Deputy Executive Officer/Planning, Rule Development & Area Sources, gave a presentation on an RFP to conduct a study for potential economic impacts on rules for Facility-Based Mobile Source Measures on warehouses and distribution centers. In May 2018, the Board directed staff to pursue rulemaking for warehouses and conduct a study to help inform rulemaking and supplemental socioeconomic impact analysis conducted.

Moved by Solis; seconded by Mitchell; unanimously approved

Ayes: Mitchell, Parker and Solis
Noes: None
Absent: Ashley, Lyou and McCallon

INFORMATIONAL ITEM:

2. Update on California Air Resources Board (CARB)'s Proposed Regulations for the Innovative Clean Transit and the Zero-Emission Airport Shuttle Bus

CARB staff, Katherine Garrison, provided a status update on CARB's proposed regulations for Innovative Clean Transit (zero emission transit buses) and Zero-Emission Airport Shuttle Buses.

[Dr. Lyou joined the meeting at 9:14 a.m.]

Dr. Parker asked about the sources of incentive funding programs, including Carl Moyer, and whether funding will be available for zero emission buses (ZEB) after the first ten to twelve years (i.e., after full transition to ZEB). Ms. Garrison responded that there are many incentive funding programs available now and that these programs are designed to help with the early deployment of clean fuel and vehicle technologies. Since the cost of ZEBs is expected to decrease over time, the needs for incentive funding will substantially decrease in the future as well. Dr. Parker also asked how CARB defines "disadvantaged community" and whether communities next to freeways can be considered to be disadvantaged communities based on exposure to air pollution alone. CARB staff use CalEnviroScreen to identify disadvantaged communities. She also stated that CARB is well aware of exposure next to freeways and she indicated that SB375 – Smart Land Use Planning, is designed to reduce vehicle miles traveled by locating housing close to jobs, reducing freeway traffic. Last year, CARB published a document on proven strategies to reduce exposure from roadways. Mr. Nastri added that the disadvantaged community areas that are covered in today's presentation and in other work at SCAQMD are mainly based on CalEnviroScreen. He also added that extensive work is being done under AB 617 to define and select disadvantaged communities to ensure benefits to the most impacted communities.

Supervisor Solis commented that LA Metro has already started acquisition of near-zero buses. She emphasized that LA Metro is responsible for providing reliable services and they are trying to address some of these challenges with the new zero-emission buses. Ms. Garrison responded that transit agencies statewide have been leaders in adopting ZEBs and they are making commitments to purchase more

ZEBs. As the number of ZEBs increases, the technology will improve to reliably meet the needs of transit agencies. Supervisor Solis also commented that LA Metro is looking into building their own ZEBs instead of purchasing new buses from manufacturers. LA Metro is working closely with the Department of Energy and Department of Transportation to achieve this goal.

Mayor Pro Tem Mitchell asked if the proposed transit bus regulation applies to all fleets, regardless of size. Ms. Garrison responded that the proposed regulation applies to buses greater than 14,000 pounds gross vehicle weight and smaller fleets, defined as having fewer than 100 buses, have more time to phase in ZEB purchases than larger fleets. Mayor Pro Tem Mitchell also asked which vendors the Department of General Services will be working with to procure ZEBs. CARB staff responded that all eligible ZEB manufacturers will be invited to participate in the process. Mayor Pro Tem Mitchell emphasized the need to consider the availability of adequate funding for charging infrastructure for ZEBs during the proposed transit bus rulemaking process. She also mentioned that CARB should ensure that some of the infrastructure funding be allocated for hydrogen fueling stations for fuel-cell buses. Ms. Garrison mentioned that SB 350 will provide funding for charging stations and the new VW NOx mitigation funds can be applied toward ZEV and associated charging infrastructure. CEC has a funding program under AB 118 for hydrogen fueling stations. Mayor Pro Tem Mitchell also commented on the LAX plan to consolidate all rental car agencies into one location and the need for CARB to consider that in the proposed regulation.

Dr. Lyou commented that there is a fundamental difference between the two proposed regulations. While there is a turnover requirement for airport shuttle buses, the requirement under the transit bus regulation is only for new purchases which might create an inadvertent loophole. Dr. Lyou also mentioned a company in Riverside that refurbishes old buses into electric buses and asked whether the proposed regulation would allow credits for these refurbished buses. Ms. Garrison will check into this. Dr. Lyou suggested CARB work with utilities to provide reasonable electricity rates for transit agencies that will be subject to this regulation. Ms. Garrison mentioned that San Diego Gas & Electric includes special rates for ZEBs in its SB 350 proposal to the California Public Utilities Commission (CPUC) and that the CPUC has established a ZEV Rate Design Forum to consider these issues. She also mentioned that fleets have the ability to reduce cost by using smart charging software.

WRITTEN REPORTS:

3. **Rule 2202 Activity Report: Rule 2202 Summary Status Report**
   This item was received and filed.

4. **Monthly Report on Environmental Justice Initiatives: CEQA Document Commenting Update**
   This item was received and filed.

OTHER MATTERS:

5. **Other Business**
   There was no other business.

6. **Public Comment Period**
   There were no public comments.

7. **Next Meeting Date:**
   The next regular Mobile Source Committee meeting is scheduled for Friday, September 21, 2018.

Adjournment
The meeting adjourned at 10:28 a.m.

Attachments
1. Attendance Record
2. Rule 2202 Activity Report – Written Report
3. Monthly Report on Environmental Justice Initiatives: CEQA Document Commenting Update – Written Report

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MOBILE SOURCE COMMITTEE MEETING
Attendance – July 20, 2018

Dr. Clark E. Parker, Sr. (Videoconference)	SCAQMD Board Member
Dr. Joseph Lyou	SCAQMD Board Member
Mayor Pro Tem Judith Mitchell	SCAQMD Board Member
Supervisor Hilda L. Solis (Videoconference)	SCAQMD Board Member
Mark Abramowitz	Board Consultant (Lyou)
Ron Ketcham	Board Consultant (McCallon)
Marisa Perez	Board Assistant (Mitchell)
Curt Coleman	Southern CA Air Quality Alliance
Katherine Garrison	CARB
Bill LaMarr	California Small Business Alliance
Daniel McGivney	SoCalGas
Peter Whittingham	Whittingham Public Affairs Advisors (WPAA)
Sam Atwood	SCAQMD Staff
Barbara Baird	SCAQMD Staff
Brian Choe	SCAQMD Staff
Arlene Farol	SCAQMD Staff
Philip Fine	SCAQMD Staff
Carol Gomez	SCAQMD Staff
Erika Graham	SCAQMD Staff
Sang-Mi Lee	SCAQMD Staff
Megan Lorenz	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Wayne Nastri	SCAQMD Staff
Sarah Rees	SCAQMD Staff
Zorik Pirveysian	SCAQMD Staff
Veera Tyagi	SCAQMD Staff
Jill Whynot	SCAQMD Staff
Jillian Wong	SCAQMD Staff
Paul Wright	SCAQMD Staff
Andrew Yoon	SCAQMD Staff

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

Rule 2202 Summary Status Report

Activity for January 1, 2018 to June 30, 2018

Employee Commute Reduction Program (ECRP)	
# of Submittals:	138

Emission Reduction Strategies (ERS)	
# of Submittals:	308

Air Quality Investment Program (AQIP) Exclusively		
County	**# of Facilities**	**$ Amount**
Los Angeles	40	$ 213,599
Orange	11	$ 111,217
Riverside	0	$ 0
San Bernardino	3	$ 12,711
TOTAL:	**54**	**$ 337,527**

ECRP w/AQIP Combination		
County	**# of Facilities**	**$ Amount**
Los Angeles	3	$ 11,028
Orange	0	$ 0
Riverside	0	$ 0
San Bernardino	1	$ 9,253
TOTAL:	**4**	**$ 20,281**

Total Active Sites as of June 30, 2018

ECRP (AVR Surveys)			TOTAL Submittals w/Surveys	AQIP	ERS	TOTAL
ECRP[1]	AQIP[2]	ERS[3]				
497	16	13	526	104	731	1,361
36.52%	1.18%	0.96%	38.65%	7.64%	53.71%	100%[4]

Total Peak Window Employees as of June 30, 2018

ECRP (AVR Surveys)			TOTAL Submittals w/Surveys	AQIP	ERS	TOTAL
ECRP[1]	AQIP[2]	ERS[3]				
372,249	5,574	11,268	389,091	15,599	328,120	732,810
50.8%	.76%	1.54%	53.1%	2.13%	44.78%	100%[4]

Notes:
1. ECRP Compliance Option.
2. ECRP Offset (combines ECRP w/AQIP). AQIP funds are used to supplement the ECRP AVR survey shortfall.
3. ERS with Employee Survey to get Trip Reduction credits. Emission/Trip Reduction Strategies are used to supplement the ECRP AVR survey shortfall.
4. Totals may vary slightly due to rounding.

BOARD MEETING DATE: September 7, 2018 AGENDA NO.

REPORT: Lead Agency Projects and Environmental Documents Received By SCAQMD

SYNOPSIS: This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between June 1, 2018 and June 30, 2018, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: The Mobile Source Committee, on July 20, 2018 reviewed the June 1 – June 30, 2018 portion of the report; while the July 1 – July 31 2018 portion has had no committee review.

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PF:SN:MK:DG:LW

CEQA Document Receipt and Review Logs (Attachments A and B) – Each month, the SCAQMD receives numerous CEQA documents from other public agencies on projects that could adversely affect air quality. A listing of all documents received and reviewed during the reporting period June 1, 2018 through June 30, 2018 is included in Attachment A. A list of active projects from previous reporting periods for which SCAQMD staff is continuing to evaluate or has prepared comments is included in Attachment B. A total of 99 CEQA documents were received during this reporting period and 37 comment letters were sent. A notable project in this report is the Mount Vernon Avenue Bridge Project.

The Intergovernmental Review function, which consists of reviewing and commenting on the adequacy of the air quality analysis in CEQA documents prepared by other lead agencies, is consistent with the Board's 1997 Environmental Justice Guiding Principles and Environmental Justice Initiative #4. As required by the Environmental Justice Program Enhancements for FY 2002-03 approved by the Board in October 2002, each of

the attachments notes those proposed projects where the SCAQMD has been contacted regarding potential air quality-related environmental justice concerns. The SCAQMD has established an internal central contact to receive information on projects with potential air quality-related environmental justice concerns. The public may contact the SCAQMD about projects of concern by the following means: in writing via fax, email, or standard letters; through telephone communication; as part of oral comments at SCAQMD meetings or other meetings where SCAQMD staff is present; or by submitting newspaper articles. The attachments also identify for each project the dates of the public comment period and the public hearing date, if applicable, as reported at the time the CEQA document is received by the SCAQMD. Interested parties should rely on the lead agencies themselves for definitive information regarding public comment periods and hearings as these dates are occasionally modified by the lead agency.

At the January 6, 2006 Board meeting, the Board approved the Workplan for the Chairman's Clean Port Initiatives. One action item of the Chairman's Initiatives was to prepare a monthly report describing CEQA documents for projects related to goods movement and to make full use of the process to ensure the air quality impacts of such projects are thoroughly mitigated. In response to describing goods movement, CEQA documents (Attachments A and B) are organized to group projects of interest into the following categories: goods movement projects; schools; landfills and wastewater projects; airports; general land use projects, etc. In response to the mitigation component, guidance information on mitigation measures were compiled into a series of tables relative to: off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases. These mitigation measure tables are on the CEQA webpages portion of the SCAQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies. Staff will continue compiling tables of mitigation measures for other emission sources, including airport ground support equipment and other sources.

As resources permit, staff focuses on reviewing and preparing comments for projects: where the SCAQMD is a responsible agency; that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement, etc.); that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); where environmental justice concerns have been raised; and those projects for which a lead or responsible agency has specifically requested SCAQMD review. If staff provided written comments to the lead agency as noted in the column "Comment Status," there is a link to the "SCAQMD Letter" under the Project Description. In addition, if staff testified at a hearing for the proposed project, a notation is provided under the "Comment Status." If there is no notation, then staff did not provide testimony at a hearing for the proposed project.

During the period June 1, 2018 through June 30, 2018, the SCAQMD received 99 CEQA documents. Of the total of 120 documents* listed in Attachments A and B:

- 37 comment letters were sent;
- 35 documents were reviewed, but no comments were made;
- 25 documents are currently under review;
- 15 documents did not require comments (e.g., public notices);
- 0 documents were not reviewed; and
- 8 documents were screened without additional review.

* These statistics are from June 1, 2018 to June 30, 2018 and may not include the most recent "Comment Status" updates in Attachments A and B.

Copies of all comment letters sent to lead agencies can be found on the SCAQMD's CEQA webpage at the following internet address: http://www.aqmd.gov/home/regulations/ceqa/commenting-agency.

SCAQMD Lead Agency Projects (Attachment C) – Pursuant to CEQA, the SCAQMD periodically acts as lead agency for stationary source permit projects. Under CEQA, the lead agency is responsible for determining the type of CEQA document to be prepared if the proposal is considered to be a "project" as defined by CEQA. For example, an Environmental Impact Report (EIR) is prepared when the SCAQMD, as lead agency, finds substantial evidence that the proposed project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if the SCAQMD determines that the proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are written statements describing the reasons why proposed projects will not have a significant adverse effect on the environment and, therefore, do not require the preparation of an EIR.

Attachment C to this report summarizes the active projects for which the SCAQMD is lead agency and is currently preparing or has prepared environmental documentation. As noted in Attachment C, the SCAQMD continued working on the CEQA documents for four active projects during June.

Attachments

A. Incoming CEQA Documents Log
B. Ongoing Active Projects for Which SCAQMD Has or Will Conduct a CEQA Review
C. Active SCAQMD Lead Agency Projects

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 24

REPORT: Stationary Source Committee

SYNOPSIS: The Stationary Source Committee held a meeting on Friday, July 20, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Ben Benoit, Chair
Stationary Source Committee

LT:eb

Committee Members

Present**:** Mayor Ben Benoit/Chair (videoconference), Dr. Joseph Lyou/Vice Chair, Mayor Pro Tem Judith Mitchell, Supervisor Shawn Nelson (videoconference), Supervisor Janice Rutherford (videoconference) and Supervisor Hilda L. Solis (videoconference)

Call to Order

Chair Benoit called the meeting to order at 10:35 a.m.

INFORMATIONAL ITEMS:

1. **Update on Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations**
   Susan Nakamura, Assistant Deputy Executive Officer/Planning, Rule Development and Area Sources, presented an update on Proposed Amended Rule (PAR) 1469. Mayor Pro Tem Mitchell asked about the status and timeline for recertification of fume suppressants. Ms. Nakamura responded that staff is working toward conducting emissions testing to determine the level of fume suppressants coming from the tank, and then staff will work with CARB to review available data to decide whether or not to recertify. This analysis will be completed by 2020 and facilities would have until 2021 to add air pollution controls, if chemical fume suppressants are not recertified.

Dr. Lyou stated that air monitoring is important for ensuring regulatory compliance for hexavalent chromium sources and identifying additional sources of hexavalent chromium. Dr. Lyou requested that staff address the monitoring requirements in PAR 1469 and other ongoing monitoring activities conducted by SCAQMD staff. Ms. Nakamura summarized the PAR 1469 requirements pertaining to parameter monitoring and noted that ambient monitoring is not proposed in PAR 1469, however; Proposed Rule 1480 will address ambient air monitoring for this industry and other facilities emitting toxics. Dr. Lyou also inquired about whether there is a commitment from staff to conduct ambient monitoring in communities other than those currently monitored that have potential sources of chrome plating or other metal processing related emissions. Mr. Wayne Nastri, Executive Officer, responded that part of the continued ambient air monitoring efforts will be conducted through the AB 617 process.

Dr. Lyou asked about the enforcement of certain provisions, for example, the requirement to close a door after two hours. Ms. Nakamura, responded that this can be based on observation from compliance staff. Ms. Nakamura also mentioned that the requirement to close doors after a period of time was requested by the Stationary Source Committee. Dr. Lyou requested clarification on changes made since the set hearing. Ms. Nakamura clarified that slides 5 through 7 of the presentation highlighted the changes since the set hearing.

Supervisor Solis inquired about community concerns related to schools and requested that staff provide an overview of how these concerns have been addressed. Ms. Nakamura summarized the changes specific to schools such as the modification to the definition of schools to include early education centers and the addition of a provision that requires facilities within 1,000 feet of a school to close openings that face the school. Supervisor Solis also requested an additional round of community meetings to inform community members about the impacts from these facilities and what the proposed rule will achieve. Staff stated that an additional community meeting could be held in August.

Supervisor Solis also asked staff for ideas on addressing economic impacts to small facilities. Ms. Nakamura added that staff is committed to seeking funding for capital costs to comply with the proposed amended rule but is concerned about the operation and maintenance costs for smaller facilities. Mr. Nastri added that there is potential funding from AB 617 funds.

Wesley Turnbow, Metal Finishing Association of Southern California (MFASC) stated that they have reached a compromise on rule language. Outstanding concerns include the socioeconomic assessment and significant costs to small businesses, leading to loss of jobs and shop closures.

Brian Leiker, MFASC, expressed concern about the costs of PAR 1469 to facilities that could put up to 40 percent of companies out of business, and make it hard for businesses to compete.

Florence Garibian recommended that SCAQMD work with the community and expressed concern about the toxicity of chromium 6.

Curt Coleman, Southern California Air Quality Alliance, thanked staff for addressing Boeing's concerns.

Sam Bell, Metal Surfaces, Inc., requested a de minimis usage for hexavalent chromium containing tanks and requested a delay until OEHHA can re-evaluate the toxicity of hexavalent chromium.

Alan Olick, Brite Plating/General Plating, commented that plating businesses will close due to cost of compliance with the proposed rule provisions and that staff's estimated source test costs do not include the production downtime required while source tests are conducted.

Robina Suwol, California Safe Schools, appreciated that staff revised the definition of school to include early education programs; however, was concerned about the portion of the definition that states "does not include unimproved school property." Ms. Suwol also requested additional community outreach.

Bill LaMarr, California Small Business Alliance, commented about job losses associated with PAR 1469 and the inadequacy of the REMI analysis. Mr. LaMarr also commented that the Abt report recommended that the SCAQMD expand its small business impacts analysis in its socioeconomic assessments. He requested a delay in the public hearing.

Charles Bell, Metal Surfaces Inc, commented that it is premature to take the rule to the Board for consideration in September and recommended that the hearing be extended 30 or 60 days. Financial impacts should be spread out over a shorter time period for the analysis.

Felipe Aguirre, a resident of Maywood, expressed concern about hexavalent chromium platers in the community of Maywood and near schools.

Vince Grana, Cal Electroplating, expressed concerns about additional regulatory impacts to business.

Ed Appleton, Metal Finishing Marketers, stated concerns about complying with requirements that are beyond the control of the facility.

Jane Williams, California Communities Against Toxics, commented that PAR 1469 does not address concerns that were stated early in the rule development process. Hexavalent chromium will be proposed to be banned in Sweden, but will continue to be used locally. Also, a significant number of facilities are within 1,000 feet of a school.

Patrick King, Morrell's, commented that the industry is very concerned about the economic impacts of the rule, especially if fume suppressants can no longer be used because small businesses will be most affected. He asked that the public hearing be delayed.

Dan Zinman, Metals Finishing Association, commented that the industry is concerned about both health impacts and business impacts.

Ms. Nakamura provided the following in response to public comments:

- PAR 1469 does not have a de-minimis level. Adding a de minimis level would be inconsistent with the federal NESHAP and the State Airborne Toxic Control Measure (ATCM)
- There are provisions in PAR 1469 that allow low-use tanks (lower amp-hours) to have fewer requirements such as the source test schedule.
- Staff modified the source test schedule from once every two years to once every three years, and to once every five years and once every seven years for low amp-hour tanks.
- The delay for the State Water Board's rulemaking for establishing hexavalent chromium levels in water was not due to issues with the toxicity of hexavalent chromium. The delay was due to the lack of an economic analysis for the proposed regulation.
- The definition of school was existing rule language. Staff is concerned about a potential noticing issue if the definition of school is modified.
- Staff worked with Stu Sessions, an economist representing the MFASC, on the socioeconomic impact analysis and shared all of the base cost assumptions. Staff and Mr. Sessions were generally in agreement with base cost assumptions. MFASC requested that SCAQMD staff share the detailed cost information, which is being prepared and will be provided.

- The rule has a commitment to evaluate fume suppressants. If recertification does not occur, facilities would be required to use add-on controls.

Dr. Phillip Fine, Deputy Executive Officer/Planning Rule Development and Area Sources, commented that currently there is no prohibition against using a perfluorooctane sulfonate (PFOS) alternative chemical fume suppressant. Dr. Fine added that the rule allows the chemical to be phased out unless it can be shown to be safe in this application. Ms. Nakamura commented that banning the chemical fume suppressant would leave the tanks completely uncontrolled. Time is needed to test the chemical fume suppressants and for facilities to install add-on air pollutions, if necessary.

Mayor Pro Tem Mitchell requested that staff address the requests of commenters for additional time to review the socioeconomic assessment. Ms. Nakamura responded that the socioeconomic assessment was released a month before the normal 30-day review period. Ms. Nakamura also stated staff's concerns with delaying the proposed amended rule as this would result in a delay for installation of add-on air pollution controls for facilities that have high chrome emitting tanks, requirements for building enclosures, and periodic source testing.

Mayor Pro Tem Mitchell asked who would be most impacted by PAR 1469, if a phase in period for small businesses was considered. Ms. Nakamura responded that most of the cost for small businesses occur if we cannot certify the chemical fume suppressants because they will need to install add-on controls, and that staff will seek additional funding. Ms. Nakamura commented that staff has reached out to CARB to look at options. Mr. Nastri commented that there is time, if needed, to revisit the requirements.

Dr. Lyou expressed concern about hexavalent chromium and the need to consider alternatives. He added that if facilities use something other than hexavalent chromium then they do not have a PFOS/PFOA (perfluorooctanoic acid) concern. Mr. Nastri responded that staff has met with the Department of Defense (DOD), but DOD said that it would take time to review. Ms. Nakamura commented that in the Board Resolution, staff will include a commitment for a technology assessment of phasing out hexavalent chromium. Ms. Nakamura added that staff has interviewed facilities that have switched to trivalent chromium and it is not an easy process. She also stated that some facilities outsource work to perform the hexavalent chromium plating.

Supervisor Solis commented that the definition of school is not clear. She expressed concern that parks where children go may be located within close proximity to a school, therefore, staff should be careful in how a school is defined. Ms. Nakamura responded that the definition for sensitive receptor includes schools, hospitals, and other land uses. Supervisor Solis asked if the definition of sensitive receptor

includes parks because in some areas children heavily utilize parks. Ms. Nakamura responded that sensitive receptors does not include parks. Supervisor Solis asked if considering parks as a sensitive receptor is something that can be considered. Ms. Nakamura expressed concern that if a substantial change is made to the rule the noticing requirements could be retriggered. Supervisor Solis added that many times school districts utilize parks for school activities and that she is eager to hear from SCAQMD legal counsel.

2. **Proposed Amendments to Rules 2001 -Applicability and 2002 -Allocations for NOx and SOx**

Tracy Goss, Manager/ Planning, Rule Development and Area Sources, provided a summary of the proposed amendments which will include an opt-out provision to allow facilities that meet specified criteria to exit RECLAIM. He also summarized provisions that would allow a RECLAIM facility that receives an initial notification to stay in RECLAIM for a limited amount of time while the SCAQMD continues to resolve New Source Review (NSR) and permitting issues associated with transitioning to a command-and-control regulatory structure.

Dr. Lyou commented that with SB 288 ("Protect California Act of 2003") and NSR, state legislation would have to be involved. Mr. Goss replied that RECLAIM NSR is based on actual emissions and Regulation XIII is based on potential to emit. He further stated that the NSR issues do not involve relaxations but relate to the ability of facilities' to obtain offsets without exceeding the CEQA thresholds of Rule 1315. Dr. Fine stated that the SCAQMD is delaying the exit of some facilities that would like to stay in RECLAIM for purposes of NSR.

Dr. Lyou inquired about the "limited time" statement and said it appears that this is tied to NSR. He asked what the SCAQMD is expecting U.S. EPA to do and how the District will avoid having a facility remain in RECLAIM forever. Ms. Nakamura explained that as facilities exit RECLAIM they will need offsets for new and modified sources. She also stated that ERCs in the open market are scarce and that there is concern about the exited facilities finding offsets in the open market. One option is to use offsets from the internal bank, but U.S. EPA would have to approve that approach.

Barbara Baird, Chief Deputy Counsel, addressed the question of requiring state law to be amended in order to amend NSR rules. She stated that SB 288 prohibits districts in California from amending their state NSR rules to be less stringent than they were on December 30, 2002. She said that the offset provision is one that can be amended as long as on a programmatic basis it retains equivalency to what it was in place in 2002. SB 288 has other requirements that have to be maintained on a source specific basis but offsets is not one of those requirements. She continued by saying it is less likely that the new proposed amendments would require a change in state law, but at this point it is uncertain if they will. The District will have a better

chance of not requiring a change because it is looking at offsets as opposed to looking at individual requirements. Dr. Laki Tisopulos, Deputy Executive Officer/Engineering and Permitting, commented that the methods for calculating emissions are different for Regulation XIII and RECLAIM. He said that there needs to be a mechanism that translates one program to the other. Wayne Nastri, Executive Officer, commented that the District is asking for a hold on the NSR issue and that U.S. EPA has agreed since options are still being discussed. Mr. Nastri added that if there is concern about the time that a facility will remain in RECLAIM, the District will report back on the progress of the NSR discussions.

Dr. Lyou expressed concerns about large facilities remaining in RECLAIM and not controlling their emissions to a Best Available Retrofit Control Technology (BARCT) level due to delays in transitioning facilities out. Dr. Fine explained that the plan is to continue to move forward and that facilities are still subject to BARCT implementation schedules whether they are in or out of RECLAIM. He added that facilities may want to stay in RECLAIM while NSR is resolved and this would still allow the District to progress with BARCT implementation. Mr. Goss further commented that if a facility remains in RECLAIM and a BARCT rule is adopted, the facility will still have to comply with the adopted applicable BARCT rule. Dr. Fine said that this was done during the power crisis and Ms. Nakamura added that it was done in Rule 2009.

Kahlil Kochiyama, a Torrance resident and student at the University of California, Santa Barbara (UCSB), expressed appreciation for the SCAQMD and encouraged staff to be mindful of communities' health during the rule development process on NOx emissions. He spoke about his experience with asthma and breathing problems as a child and growing up a half-mile from a refinery and inhaling the fumes. While a student at UCSB, he learned about the health impacts of pollutants from refineries that threaten populations. He supports strong regulations.

David Pettit of the Natural Resources Defense Council (NRDC) commented on the NSR issue stating that it is a highly technical issue that brings up a lot of concern. He believes that there is a solution for satisfying environmental communities, staff, and U.S. EPA that will allow the SCAQMD to move forward with the sunsetting of RECLAIM.

Frances Keeler of Clyde & Co stated that the package was released today and there was not ample time to review the rule language, making it difficult to give input. She would like to have time to review, in order to give input on the proposals.

Mr. Goss replied that the comment period ending on August 23, 2018, following the public workshop, will allow for the District to address comments. Ms. Nakamura explained that staff would typically present to the Stationary Source Committee two months before the public hearing, but because the Board is dark in August, this item

is being presented three months before the public hearing. In addition, the draft preliminary language is being released three months before the public hearing. She added that staff can return to the Stationary Source Committee the month before the public hearing to give stakeholders time to review and comment on the proposed amended rule. She noted that the same applies to Rule 1135, which is also being heard in October. Mayor Pro Tem Mitchell, suggested that the rule be revisited at the September Stationary Source Committee meeting.

3. **Update on the 2016 AQMP Control Measures for Underfired Charbroilers and Commercial Cooking Equipment**
   Due to time constraints, this item was deferred to the next Stationary Source Committee meeting.

4. **Summary of Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electric Power Generating Systems**
   Due to time constraints, this item was deferred to the next Stationary Source Committee meeting.

5. **Status Report on Reg. XIII – New Source Review**
   Due to time constraints, this item was deferred to the next Stationary Source Committee meeting.

WRITTEN REPORTS:

6. **Notice of Violation Penalty Summary**
   The report was acknowledged by the Committee.

7. **Twelve-month and Three-month Rolling Price of 2017 and 2018 Compliance Years RTCs**
   The report was acknowledged by the Committee.

8. **Home Rule Advisory Group – Bi-Monthly Report for May 2018**
   The report was acknowledged by the Committee.

OTHER MATTERS:

9. **Other Business**
   There was no other business.

10. **Public Comment Period**
    There were no public comments.

11. Next Meeting Date

The next Stationary Source Committee meeting is scheduled for Friday, August 17, 2018.

Adjournment

The meeting was adjourned at 12:00 p.m.

Attachments

1. Attendance Record
2. Notice of Violation Penalty Summary
3. Twelve-month and Three-month Rolling Price of 2017 and 2018 Compliance Years RTCs
4. Home Rule Advisory Group – Bi-Monthly Report for May 2018

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
STATIONARY SOURCE COMMITTEE
Attendance – July 20, 2018

Mayor Ben Benoit (videoconference)	SCAQMD Governing Board
Dr. Joseph Lyou	SCAQMD Governing Board
Mayor Pro Tem Judith Mitchell	SCAQMD Governing Board
Supervisor Shawn Nelson (videoconference)	SCAQMD Governing Board
Supervisor Janice Rutherford (videoconference)	SCAQMD Governing Board
Supervisor Hilda L. Solis (videoconference)	SCAQMD Governing Board

Ed Appleton	Metal Finishing Marketers
Monica Embrey	Sierra Club
Vince Grana	Cal Electroplating/MFASC
Tom Gross	SCE
Pat King	Morrell's Electro Plating
Kahlil Kochiyama	Community Member
Bill LaMarr	CSBA
Rita Loof	RadTech
Norberto Mariscal	Metal Finishing Marketers
Krishna Nand	Environmental Management Professionals
John Podlenski	Pod Technologies
Susan Stark	Andeavor
Brian Ward	AAA Plating/MFASC
Peter Whittingham	WPAA

Barbara Baird	SCAQMD staff
Marian Coleman	SCAQMD staff
Amir Dejbakhsh	SCAQMD staff
Philip Fine	SCAQMD staff
Bayron Gilchrist	SCAQMD staff
Tracy Goss	SCAQMD staff
Susan Nakamura	SCAQMD staff
Wayne Nastri	SCAQMD staff
Laki Tisopulos	SCAQMD staff
Jill Whynot	SCAQMD staff

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office
DRAFT
June 2018 Settlement Penalty Report

Total Penalties	
Civil Settlements:	**$3,480,691.50**
(*Suspended Penalty amount included in Civil Settlements)	$10,000.00
Self-Reported Settlements:	**$3,500.00**
MSPAP Settlements:	**$7,400.00**
Total Cash Settlements:	**$3,491,591.50**
Total SEP Value:	**$0.00**
Fiscal Year through 6 / 2018 Cash Total:	**$14,221,617.93**
Fiscal Year through 6 / 2018 SEP Value Only Total:	**$2,120,000.00**

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Civil Settlements						
186522	AMERICAN MEAT COMPANIES	1415.1	6/15/2018	DH	P64840	$5,500.00
118379	ARROWHEAD REGIONAL MEDICAL CTR	3002	6/13/2018	NAS	P58094	$5,000.00
132068	BIMBO BAKERIES USA INC	2004(f)(1) 2012 Appen A	6/13/2018	TRB	P60274	$11,500.00
172638	C&D ZODIAC _ CYPRESS	1147 203 (a) 203 (b)	6/28/2018	NSF	P62803 P60668 P60672	$2,500.00
800030	CHEVRON PRODUCTS CO.	1173 1176(e)(1)	6/15/2018	TRB	P64615 P64616 P64618	$80,000.00
800030	CHEVRON PRODUCTS CO.	42400 2004	6/15/2018	TRB	P58236 P58237	$8,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
800030	CHEVRON PRODUCTS CO.	1118 3002(c)(1) 401(b)(1)(A) 41701	6/22/2018	TRB	P60971	$15,000.00
141424	HOME DEPOT USA INC	1143	6/5/2018	WBW	P60330 P60338	$2,394,862.50
24647	J. B. I. INC	3002 3003	6/20/2018	ML	P64014	$400.00
164214	KIBRIYA ENTERPRISES, INC	203 (b) 461(c)(2)(A)	6/14/2018	WBW	P63022	$400.00
800075	LA CITY, DWP SCATTERGOOD GENERATING STN	2004(f)(1) 2012(e)(2)(B) 203 (b) 3002(c)(1)	6/28/2018	NSF	P60584	$133,500.00
143723	LOVIN OVEN, LLC	203 (b)	6/13/2018	NSF	P57695	$300,000.00
185783	MC CARTHY	1113	6/5/2018	BST	P67001	$1,200.00
185400	MOTHER'S MARKET **Suspended penalty of $10,000 suspended until June 21, 2019*	1415.1	6/13/2018	BST	P64832 P64833 P64834 P64835 P64837	$60,000.00
52517	REXAM BEVERAGE CAN COMPANY	2004	6/7/2018	BST	P63720	$1,300.00
139490	RUST-OLEUM CORP	314	6/15/2018	NAS	P60310	$454,829.00
169882	SAN GABRIEL TRANSIT INC	201 203 (a)	6/26/2018	BST	P60543	$1,100.00
24240	SERVICE PLATING CO INC	203 (b)	6/8/2018	RFL	P65036	$1,600.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
144369	VERIZON WIRELESS	1470 203 (b)	6/13/2018	BST	P65567	$4,000.00

Total Civil Settlements: $3,480,691.50

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Self-Reported Settlements						
134931	ARCONIC GLOBAL FASTENERS & RINGS, INC.		6/27/2018	NAS		$3,500.00

Total Self-Reported Settlements: $3,500.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
MSPAP Settlements						
154194	ARCO #00117- SRR, LLC	461(c)(3)(Q)	6/27/2018	GC	P70813	$200.00
143433	C & R CLEANERS	203 (a)	6/13/2018	GC	P65201	$800.00
177392	CW GOLF PARTNERS	461(c)(3)(Q)	6/22/2018	GC	P71060	$200.00
168989	H & E EQUIPMENT SERVICES	461(c)(3)(Q)	6/22/2018	TF	P71022	$200.00
151731	HILALIAN CORP	461(c)(3)(Q)	6/22/2018	TF	P70810	$200.00
88327	JIFFY LUBE	461(c)(3)(Q)	6/7/2018	TF	P70658	$200.00
146857	KAM'S AUTOMOTIVE INC	201 203(a)	6/7/2018	GC	P64012	$800.00
27266	LA CO., DEPT PARKS & RECREATION	203(b) 461 (e) (2)	6/7/2018	TF	P60542	$800.00
179116	OS OIL, INC.	461(c)(3)(Q)	6/7/2018	TF	P70677	$200.00
159758	PETRO BRASS	461	6/22/2018	TF	P64995	$400.00
127841	THE TEECOR GROUP, INC.	1403	6/22/2018	TF	P63083	$3,400.00

Total MSPAP Settlements: $7,400.00

DRAFT

DISTRICT'S RULES AND REGULATIONS INDEX FOR JUNE 2018 PENALTY REPORT

REGULATION II - PERMITS

Rule 201	Permit to Construct
Rule 203	Permit to Operate

REGULATION III - FEES

Rule 314	Fees for Architectural Coatings

REGULATION IV - PROHIBITIONS

Rule 401	Visible Emissions
Rule 461	Gasoline Transfer and Dispensing

REGULATION XI - SOURCE SPECIFIC STANDARDS

Rule 1113	Architectural Coatings
Rule 1118	Emissions From Refinery Flares
Rule 1143	Consumer Paint Thinners & Multi-Purpose Solvents
Rule 1147	Nox Reductions From Miscellaneous Sources
Rule 1173	Fugitive Emissions of Volatile Organic Compounds
Rule 1176	Sumps and Wastewater Separators

REGULATION XIV - TOXICS

Rule 1403	Asbestos Emissions from Demolition/Renovation Activities
Rule 1415.1	Reduction of Refrigerant Emissions from Stationary Refrigeration Systems.
Rule 1470	Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

REGULATION XX REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004	Requirements
Rule 2012	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_X) Emissions

REGULATION XXX TITLE V PERMITS

Rule 3002	Requirements
Rule 3003	Applications

CALIFORNIA HEALTH AND SAFETY CODE

41701	Violation of General Limitations

42400 Penalties

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Twelve-Month and Three-Month Rolling Average Price of Compliance Years 2017 and 2018 NOx and SOx RTCs

July 2018 Quarterly Report to Stationary Source Committee

Table I

Twelve-Month Rolling Average Price Data for Compliance Year 2017 NOx RTCs
(Report to Governing Board if rolling average price greater than $22,500/ton)

Twelve-Month Rolling Average Price Data for Compliance Year 2017 NOx RTC					
Reporting Month	12-Month Period	Total Volume Traded with Price During Past 12-month (tons)	Total Price of Volume Traded During Past 12-month ($)	Number of Trades with Price	Rolling Average Price[1] ($/ton)
Jan-17	Jan-16 to Dec-16	69.7	$460,621	9	$6,606
Feb-17	Feb-16 to Jan-17	94.7	$610,693	11	$6,446
Mar-17	Mar-16 to Feb-17	82.2	$573,193	10	$6,970
Apr-17	Apr-16 to Mar-17	125.3	$824,493	12	$6,581
May-17	May-16 to Apr-17	113.8	$741,828	15	$6,519
Jun-17	Jun-16 to May-17	113.8	$741,828	15	$6,519
Jul-17	Jul-16 to Jun-17	134.4	$867,079	22	$6,450
Aug-17	Aug-16 to Jul-17	144.8	$920,041	29	$6,355
Sep-17	Sep-16 to Aug-17	150.4	$955,120	35	$6,351
Oct-17	Oct-16 to Sep-17	151.2	$956,005	36	$6,323
Nov-17	Nov-16 to Oct-17	252.8	$1,345,772	55	$5,324
Dec-17	Dec-16 to Nov-17	267.1	$1,376,674	58	$5,155
Jan-18	Jan-17 to Dec-17	305.1	$1,276,006	57	$4,182
Feb-18	Feb-17 to Jan-18	693.2	$1,888,755	94	$2,724
Mar-18	Mar-17 to Feb-18	743.6	$1,991,269	111	$2,678
Apr-18	Apr-17 to Mar-18	705.6	$1,746,469	110	$2,475
May-18	May-17 to Apr-18	766.5	$1,993,214	127	$2,600
Jun-18	Jun-17 to May-18	778.0	$2,050,015	129	$2,635
Jul-18	Jul-17 to Jun-18	826.8	$2,091,914	128	$2,530

1. District Rule 2015(b)(6) - Backstop Provisions provides additional “evaluation and review of the compliance and enforcement aspects of the RECLAIM program” if the average RTC price exceeds $15,000 per ton.

Table II

Twelve-Month Rolling Average Price Data for Compliance Year 2018 NOx RTCs
(Report to Governing Board if rolling average price greater than $22,500/ton)

Twelve-Month Rolling Average Price Data for Compliance Year 2018 NOx RTC					
Reporting Month	**12-Month Period**	**Total Volume Traded with Price During Past 12-month (tons)**	**Total Price of Volume Traded During Past 12-month ($)**	**Number of Trades with Price**	**Rolling Average Price[1] ($/ton)**
Jan-18	Jan-17 to Dec-17	91.6	$974,592	3	$10,639
Feb-18	Feb-17 to Jan-18	91.6	$974,592	3	$10,639
Mar-18	Mar-17 to Feb-18	100.7	$1,041,091	4	$10,337
Apr-18	Apr-17 to Mar-18	51.6	$497,246	5	$9,643
May-18	May-17 to Apr-18	56.6	$527,075	8	$9,320
Jun-18	Jun-17 to May-18	53.1	$502,575	7	$9,473
Jul-18	Jul-17 to Jun-18	72.6	$625,883	14	$8,618

1. District Rule 2015(b)(6) - Backstop Provisions provides additional "evaluation and review of the compliance and enforcement aspects of the RECLAIM program" if the average RTC price exceeds $15,000 per ton.

Table III

Three-Month Rolling Average Price Data for Compliance Year 2017 NOx RTCs
(Report to Governing Board if rolling average price greater than $35,000/ton)

Three-Month Rolling Average Price Data for Compliance Year 2017 NOx RTC					
Reporting Month	**3-Month Period**	**Total Volume Traded with Price During Past 3-month (tons)**	**Total Price of Volume Traded During Past 3-month ($)**	**Number of Trades with Price**	**Rolling Average Price ($/ton)**
Jan-17	Oct-16 to Dec-16	41.1	$310,586	6	$7,561
Feb-17	Nov-16 to Jan-17	66.1	$460,658	8	$6,971
Mar-17	Dec-16 to Feb-17	65.0	$452,221	7	$6,962
Apr-17	Jan-17 to Mar-17	68.1	$401,372	4	$5,897
May-17	Feb-17 to Apr-17	46.6	$272,479	6	$5,847
Jun-17	Mar-17 to May-17	46.6	$272,479	6	$5,847
Jul-17	Apr-17 to Jun-17	24.2	$146,430	11	$6,051
Aug-17	May-17 to Jul-17	31.0	$178,213	14	$5,753
Sep-17	Jun-17 to Aug-17	36.6	$213,292	20	$5,828
Oct-17	Jul-17 to Sep-17	17.9	$97,616	15	$5,468
Nov-17	Aug-17 to Oct-17	109.1	$434,421	27	$3,981
Dec-17	Sep-17 to Nov-17	118.9	$438,682	25	$3,689
Jan-18	Oct-17 to Dec-17	195.0	$630,587	27	$3,233
Feb-18	Nov-17 to Jan-18	506.5	$1,003,641	47	$1,981
Mar-18	Dec-17 to Feb-18	541.5	$1,066,815	60	$1,970
Apr-18	Jan-18 to Mar-18	468.5	$871,835	57	$1,861
May-18	Feb-18 to Apr-18	119.8	$376,939	39	$3,145
Jun-18	Mar-18 to May-18	81.0	$331,226	24	$4,092
Jul-18	Apr-18 to Jun-18	145.5	$491,876	29	$3,382

Table IV

Three-Month Rolling Average Price Data for Compliance Year 2018 NOx RTCs
(Report to Governing Board if rolling average price greater than $35,000/ton)

Three-Month Rolling Average Price Data for Compliance Year 2018 NOx RTC					
Reporting Month	**3-Month Period**	**Total Volume Traded with Price During Past 3-month (tons)**	**Total Price of Volume Traded During Past 3-month ($)**	**Number of Trades with Price**	**Rolling Average Price ($/ton)**
Jan-18	Oct-17 to Dec-17	38.1	$400,092	1	$10,500
Feb-18	Nov-17 to Jan-18	38.1	$400,092	1	$10,500
Mar-18	Dec-17 to Feb-18	9.1	$66,499	1	$7,300
Apr-18	Jan-18 to Mar-18	10.0	$72,654	3	$7,295
May-18	Feb-18 to Apr-18	15.0	$102,483	6	$6,855
Jun-18	Mar-18 to May-18	5.8	$35,984	5	$6,160
Jul-18	Apr-18 to Jun-18	24.6	$153,137	10	$6,235

Table V

Twelve-Month Rolling Average Price Data for Infinite-Year Block NOx RTCs
(Report to Governing Board if rolling average price after 2018 is less than $200,000/ton)

Twelve-Month Rolling Average Price Data for Infinite-Year Block NOx RTC					
Reporting Month	**12-Month Period**	**Total Volume Traded with Price During Past 12-month (tons)**	**Total Price of Volume Traded During Past 12-month ($)**	**Number of Trades with Price**	**Rolling Average Price ($/ton)**
May-16	May-15 to Apr-16	805.1	$215,694,953	~~44~~	$267,913
Jun-16	Jun-15 to May-16	781.6	$211,669,953	44	$270,819
Jul-16	Jul-15 to Jun-16	351.5	$128,539,029	31	$365,654
Aug-16	Aug-15 to Jul-16	512.9	$166,663,599	32	$324,943
Sep-16	Sep-15 to Aug-16	517.7	$167,951,099	32	$324,449
Oct-16	Oct-15 to Sep-16	441.9	$150,586,981	30	$340,759
Nov-16	Nov-15 to Oct-16	321.9	$121,239,854	25	$376,628
Dec-16	Dec-15 to Nov-16	321.9	$121,238,354	24	$376,638
Jan-17	Jan-16 to Dec-16	301.9	$114,731,605	20	~~$~~380,057
Feb-17	Feb-16 to Jan-17	183.0	$46,520,577	10	$254,172
Mar-17	Mar-16 to Feb-17	174.3	$41,738,077	7	$239,491
Apr-17	Apr-16 to Mar-17	174.3	$41,738,077	7	$239,491
May-17	May-16 to Apr-17	176.8	$42,113,977	8	$238,223
Jun-17	Jun-16 to May-17	175.3	$41,588,977	7	$237,266
Jul-17	Jul-16 to Jun-17	172.2	$40,437,201	6	$234,802
Aug-17	Aug-16 to Jul-17	10.8	$2,311,624	4	$213,249
Sep-17	Sep-16 to Aug-17	4.1	$624,124	3	$152,598
Oct-17	Oct-16 to Sep-17	4.1	$624,124	3	$152,598
Nov-17	Nov-16 to Oct-17	4.1	$624,124	3	$152,598
Dec-17	Dec-16 to Nov-17	4.1	$624,124	3	$152,598
Jan-18	Jan-17 to Dec-17	31.8	$1,262,801	6	$39,673
Feb-18	Feb-17 to Jan-18	58.8	$1,579,801	9	$26,853
Mar-18	Mar-17 to Feb-18	58.8	$1,579,801	9	$26,853
Apr-18	Apr-17 to Mar-18	58.8	$1,579,801	9	$26,853
May-18	May-17 to Apr-18	56.3	$1,203,901	8	$21,374
Jun-18	Jun-17 to May-18	57.8	$1,233,901	9	$21,339
Jul-18	Jul-17 to Jun-18	56.7	$1,140,677	8	$20,103

Table VI

Twelve-Month Rolling Average Price Data for Compliance Year 2017 SOx RTCs
(Report to Governing Board if rolling average price greater than $50,000/ton)

Twelve-Month Rolling Average Price Data for Compliance Year 2017 SOx RTC					
Reporting Month	**12-Month Period**	**Total Volume Traded with Price During Past 12-month (tons)**	**Total Price of Volume Traded During Past 12-month ($)**	**Number of Trades with Price**	**Rolling Average Price[1] ($/ton)**
Jan-17	Jan-16 to Dec-16	0	0	0	-
Feb-17	Feb-16 to Jan-17	0	0	0	-
Mar-17	Mar-16 to Feb-17	0	0	0	-
Apr-17	Jan-17 to Mar-17	0	0	0	-
May-17	May-16 to Apr-17	0	0	0	-
Jun-17	Jun-16 to May-17	0	0	0	-
Jul-17	Jul-16 to Jun-17	0	0	0	-
Aug-17	Aug-16 to Jul-17	4.0	$4,400	1	$1,100
Sep-17	Sep-16 to Aug-17	14.0	$19,400	2	$1,386
Oct-17	Oct-16 to Sep-17	14.0	$19,400	2	$1,386
Nov-17	Nov-16 to Oct-17	14.0	$19,400	2	$1,386
Dec-17	Dec-16 to Nov-17	14.0	$19,400	2	$1,386
Jan-18	Jan-17 to Dec-17	14.0	$19,400	2	$1,386
Feb-18	Feb-17 to Jan-18	57.0	$58,742	7	$1,030
Mar-18	Mar-17 to Feb-18	57.0	$58,742	7	$1,030
Apr-18	Apr-17 to Mar-18	57.0	$58,742	7	$1,030
May-18	May-17 to Apr-18	57.0	$58,742	7	$1,030
Jun-18	Jun-17 to May-18	120.2	$102,965	10	$857
Jul-18	Jul-17 to Jun-18	120.2	$102,965	10	$857

1. District Rule 2015(b)(6) - Backstop Provisions provides additional “evaluation and review of the compliance and enforcement aspects of the RECLAIM program” if the average RTC price exceeds $15,000 per ton.

Table VII

Twelve-Month Rolling Average Price Data for Compliance Year 2018 SOx RTCs
(Report to Governing Board if rolling average price greater than $50,000/ton)

Twelve-Month Rolling Average Price Data for Compliance Year 2018 SOx RTC					
Reporting Month	**12-Month Period**	**Total Volume Traded with Price During Past 12-month (tons)**	**Total Price of Volume Traded During Past 12-month ($)**	**Number of Trades with Price**	**Rolling Average Price[1] ($/ton)**
Jan-18	Jan-17 to Dec-17	None	-	-	-
Feb-18	Feb-17 to Jan-18	None	-	-	-
Mar-18	Mar-17 to Feb-18	None	-	-	-
Apr-18	Apr-17 to Mar-18	None	-	-	-
May-18	May-17 to Apr-18	None	-	-	-
Jun-18	Jun-17 to May-18	34.2	$23,974	3	$700
Jul-18	Jul-17 to Jun-18	34.2	$23,974	3	$700

1. District Rule 2015(b)(6) - Backstop Provisions provides additional “evaluation and review of the compliance and enforcement aspects of the RECLAIM program” if the average RTC price exceeds $15,000 per ton.

South Coast
Air Quality Management District
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HOME RULE ADVISORY GROUP
Wednesday, May 9, 2018
MEETING MINUTES

CHAIR: Dr. Joseph Lyou, Governing Board Member

MEMBERS PRESENT:
Curt Coleman (Southern California Air Quality Alliance); Jaclyn Ferlita (Air Quality Consultants); Nan Harrold (Orange County Waste & Recycling); Bill La Marr (California Small Business Alliance); Bridget McCann (Western States Petroleum Association); Dan McGivney (Southern California Gas); Art Montez (AMA International); Lauren Nevitt (Southern California Gas); and TyRon Turner (Dakota Communications).
The following members participated by conference call: Rongsheng Luo (SCAG); Johnnie Raymond (CARB); Larry Rubio (Riverside Transit Agency) and Amy Zimpfer (EPA).

MEMBERS ABSENT:
Mike Carroll (Regulatory Flexibility Group); Michael Downs (Downs Energy);–Dr. Clark Parker (SCAQMD Governing Board Member); Bill Quinn (California Council for Environmental & Economic Balance); Terry Roberts (American Lung Association of California); David Rothbart (Los Angeles County Sanitation District); Larry Smith (Cal Portland Cement); and Kristen Torres Pawling (County of Los Angeles, Chief Sustainability Office).

OTHER ATTENDEES:
Mark Abramowitz (Board Consultant to Dr. Lyou); Devin Richards (California Council for Environmental & Economic Balance); and Susan Stark (Andeavor).

SCAQMD STAFF:

Jill Whynot	Chief Operating Officer
Philip Fine	Deputy Executive Officer
William Wong	Principal Deputy District Counsel
Philip Crabbe	Community Relations Manager
Patricia Kwon	Air Quality Specialist
Pedro Piqueras	Air Quality Specialist
Ann Scagliola	Administrative Secretary

OPENING COMMENTS AND SELF-INTRODUCTIONS
The meeting was called to order at 10:00 a.m. by Dr. Joseph Lyou (Chairman).

APPROVAL OF NOVEMBER 2018 MEETING MINUTES
Dr. Lyou asked for comments on the January 10, 2018 meeting minutes, after which the minutes were approved.

EPA AND FEDERAL ACTIVITIES

Amy Zimpfer provided an update on recent U.S. Environmental Protection Agency (EPA) and federal activities.

SCAQMD Related Actions

- EPA continues to review the various attainment plans incorporated into the 2016 Air Quality Management Plan (AQMP).
- On April 30, 2018, the EPA Administrator signed a final notice on the second and final round of designations for the 2015 National Ambient Air Quality Standard (NAAQS) for Ozone. The effective date will be 60 days from the publication of the action in the Federal Register.
- On March 9, 2018, the final classification rule was published and it is anticipated that Los Angeles South Coast area will be severe-15 and the Coachella area as moderate.
- EPA anticipates a SIP requirements rule, the framework for State Implementation Plans.
- The National Diesel Emission Reduction Act (DERA) Request for Proposals (RFP) are due by June 12, 2018.
- The Tribal DERA grant RFP opened on June 5, 2018 and will close on September 6, 2018.
- The 2018 Targeted Airshed Grant RFP is not yet announced and it is anticipated that $40M will be awarded in grant funding nationally.
- The 2017 Targeted Airshed Grant program (closed in October 2017) funded grants were announced on May 2, 2018 and South Coast was awarded two grants that totaled $6.4M.

National Update

- EPA continues to work on process improvements for the review of State Implementation Plans.

Discussion

Art Montez inquired if EPA is targeting mobile sources. Amy Zimpfer replied that DERA is for diesel vehicles. Art Montez also asked about options available for small urban school districts with very little funding. Ms. Zimpfer encouraged him to inquire with South Coast and CARB for available partnership opportunities. Art Montez further inquired about available funding at the federal level for energy efficient air conditioning upgrades for school district buildings. Ms. Zimpfer indicated that the Department of Energy has programs and that the contact information can be provided. Lauren Nevitt added that Southern California Gas also has many energy efficient programs for industrial equipment, as well as rebates.

Rongsheng Luo inquired about the publication date for the 2015 Ozone Standard SIP requirements. Amy Zimpfer indicated that she could not predict a date.

CARB REGULATORY ACTIVITIES

Johnnie Raymond provided a report on items scheduled to go to CARB's Board in May 2018 and recent regulatory activities.

- Consider approval of the 2016 PM2.5 SIP for Imperial County.
- Proposed amendments to the Consumer Products Regulation and Test Method 310.

Additional Activities

- CARB has conducted Climate Investment Guidelines meetings in the Bay Area, Los Angeles, and San Bernardino, with the final meeting to be held in Sacramento on May 11, 2018. Any input on the funding guidelines can be submitted through their website.
- CARB is holding the SB 1383 dairy and livestock working group meetings in May.

- CARB is embarking on an effort to work with the Natural Resources Agency, California Department of Food and Agriculture, CalEPA and the Strategic Growth Council to provide an implementation plan on carbon sequestration of the natural and working lands. The first meeting will be held on May 18, 2018.

LEGISLATIVE UPDATE

Philip Crabbe provided a recap of the April 2018 Legislative Committee meeting.

Update on Federal Legislative Issues

SCAQMD's federal legislative consultants reported on the 2018 omnibus spending bill which was passed by the House last month. It was stated that the Diesel Emission Reduction Act (DERA) program received a $15 million increase (from $60 to $75 million) and the Targeted Airshed Grant program received a $10 million increase (from $30 to $40 million) in nationwide funding in FY 2018.

The U.S. EPA determined that the greenhouse gas emission standards for model years 2022 through 2025 for light-duty vehicles should be revised; the U.S. EPA intends to file a Federal Register notice addressing Corporate Average Fuel Economy (CAFE) standards, and this will start a new rulemaking process. This development has implications for the California waiver because under the Clean Air Act, California is currently able to set its own standards. It was also reported that the Senate confirmed Andrew Wheeler as the Deputy Administrator for the U.S. EPA.

President Trump named Heidi King to be the next Administrator for the National Highway Traffic Safety Administration, an agency within the Department of Transportation. However, she will need to go through the confirmation process.

A memorandum from President Trump was issued on April 12, directing the U.S. EPA Administrator to reform the NAAQS program in a way to make it more efficient and cost-effective.

Our federal legislative consultants reported that the President was in the press recently regarding a rescissions package targeting up to $60 billion from the recently passed omnibus bill. This would potentially slash foreign aid as well as nondiscretionary domestic programs.

The U.S. EPA granted three Southern California tribes approval to implement water and air programs under the Clean Water Act and the Clean Air Act: the Morongo Band of Mission Indians in Riverside, CA, and two tribes from San Diego.

Update on State Legislative Issues

Our state legislative consultant, gave an update on AB 2548 (Friedman) regarding a commuter benefit program. This bill, which initially made reference to SCAQMD in relation to a commuter benefit program, in terms of joint creation and administration, and conflicted with SCAQMD Rule 2202, has been amended and no longer mentions SCAQMD and does not conflict with SCAQMD rules. SCAQMD staff provided amendments to Assemblywoman Friedman's office that were accepted.

SCAQMD has had multiple meetings in Sacramento about AB 617 implementation funding needs and also the need for funding for incentives in this year's Budget, to mitigate air pollution.

Action Items / Recommend Position on State Bills:

AB 2091 (Grayson) Fire prevention: prescribed burns - This bill would require that the word "prevention" be added to the name of the State Board of Forestry and Fire Prevention and Protection; require at least one Board Member to be selected with a background in fire prevention, including prescribed fire; and require the Board to appoint a prescribed fire advisory committee, including a local air district representative.

Overall, this bill could have a positive effect on reducing air pollution within the South Coast by facilitating the use of controlled burns to reduce wildfires and the resulting severe air pollution. Staff recommends amendments to the bill that address an issue that complicates the granting of controlled burn permits at the local level. Current law only allows an air pollution control officer to permit equipment for controlled burns in counties with a population of six million or less. This provision complicates SCAQMD's ability to issue controlled burn permits for fire hazard mitigation within Los Angeles County, which has a population that far exceeds six million.

Staff proposes an amendment to the bill that would remove the current reference to a county population restriction, so that SCAQMD can have clear authority to issue controlled burn permits within Los Angeles County. *The Legislative Committee adopted staff's recommended position of SUPPORT WITH AMENDMENTS on this item.*

AB 2453 (E. Garcia) Air Pollution: schools - The bill would authorize modernization grants from state school facility bond funds, to be used to limit pupil exposure to harmful air pollutants by updating air filtration systems. It would also provide that schools located in communities with facilities identified under AB 617 as toxic sources may work with air districts to identify school sites for air quality adaptation efforts; and provide that schools located near a facility designated by an air district as a high priority category may be eligible for grants as part of a community emissions reduction program adopted per AB 617. Staff recommended working with the author to identify more effective ways to implement air pollution mitigation efforts on impacted school campuses. Staff also recommends amending the bill to allow "modernization apportionments" to also be used for installation of air filtration systems.

Staff further recommends including a clarification in the bill that it does not limit air districts' discretion in developing and implementing community emission reduction programs. Finally, staff recommends clarifying what types of grant funding sources would be applicable for funding the air pollution mitigation efforts sought in the bill, since AB 617 does not provide funding for grants as part of a community emission reduction programs. *The Legislative Committee adopted staff's recommended position of SUPPORT WITH AMENDMENTS on this item.*

SB 210 (Leyva) State vehicle fleet: near-zero-emission vehicles - This bill would authorize CARB to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for non-gasoline heavy-duty on-road vehicles with a gross vehicle weight rating of more than 14,000 pounds, including, but not limited to, single-vehicle fleets and other vehicles that are registered in another state and operate in California. This would essentially be a smog check program for heavy duty diesel trucks. This program would require a motor vehicle to pass the test procedures in order to register or operate in the state.

The bill states that the program shall be developed in partnership between affected state agencies, the public, industry, and other stakeholders and is intended to be developed in a way that minimizes

costs to truck owners and fleets; and provides a level playing field for industry through effective enforcement.

The Committee agreed to recommend proposed amendments to the bill that would center on clarifying and potentially changing the "non-gasoline" terminology in the bill to ensure that clean vehicles are not affected by this bill, and to seek to have a portion of the fees generated by the bill's proposed program to be directed to local air districts to help reduce air pollution. *Overall, the Legislative Committee recommended a position of SUPPORT WITH AMENDMENTS on this bill.*

Proposed Amendments to 2018 SCAQMD State and Federal Legislative Goals and Objectives
After discussion, staff proposed language that would add the following to the federal Legislative goals: "Oppose legislation that conflicts with the District's attainment goals." *The Legislative Committee adopted staff's recommendation to amend the SCAQMD 2018 federal legislative goals and objectives.*

Proposed amendments to the 2018 SCAQMD state legislative goals and objectives were also considered relating to "clean energy" goals. However, the Legislative Committee did not recommend adopting those proposed changes.

Discussion
Lauren Nevitt inquired if the staff recommended amendments for the Leyva bill seeking to exclude ultra-low NOx engines. Mr. Crabbe indicated that the amendments seek clarity as to what is meant by "non-gasoline" terminology and to ensure that cleaner vehicles are not hindered by the bill.

Bill LaMarr asked if the district has closed down any companies this year, as outlined in AB 1132. Mr. Crabbe replied no. Bill La Marr further inquired if the district plans to enforce acrylamide found in coffee. Dr. Lyou indicated no.

Bridget McCann inquired if AQMD received any feedback from the Governor's office about the coalition efforts for funding AB 617. Mr. Crabbe indicated that AB 617 implementation funding for air districts was zeroed out in the 2018 Governor's budget proposal, but a revised budget will be out on May 11th. Dr. Lyou commented that the expectation was that we were not going to have to fight for this money every year. Jill Whynot added that the Governor's budget included money for CARB and we are making it very clear that we need the sustained funding to implement the program. Dr. Fine commented that we are making some progress.

Art Montez requested clarification on what funding is in jeopardy. Dr. Lyou replied the future funding for AB 617, beyond the initial year.

Lauren Nevitt asked how the AB 617 proposed money for next year will be split. Dr. Fine indicated that it has not been decided.

Bill La Marr inquired about a list of identified cities from a presentation at the last Board meeting. Dr. Lyou indicated that it is a preliminary consideration list for CARB. Dr. Fine added that staff's final recommended list will be presented to the SCAQMD Board in July for their approval.

Public Comment
Susan Stark inquired how the potential identified communities would be split for the monitoring or emission reduction plans. Dr. Fine indicated that it is too premature to indicate.

UPDATE REGARDING LITIGATION ITEMS AND RELATED EPA ACTIONS
William Wong had no updates to report.

Public Comment
Susan Stark inquired about the next steps for the RECLAIM case (Litigation Report - Case 8). William Wong indicated that the SCAQMD is deciding how to proceed with the court decision.

ALTERNATIVE TECHNOLOGY INFRASTRUCTURE
Naveen Berry provided an overview of the electric vehicle supply equipment (EVSE) infrastructure projects in the South Coast, as well as the Home Charger Rebate program. The discussion also included funding opportunities available under California Energy Commission (CEC), CARB, VW Settlement programs, and Southern California Edison's (SCE) charge ready program.

Discussion
Bill La Marr inquired if DC fast charge (DCFC) stations are located on private property, such as local businesses, or on local government sites. Naveen Berry indicated that it is a combination of both.

Art Montez asked about the general cost to put in a charging station. Naveen Berry replied that costs can vary, due to the level of charger and infrastructure needs. Mr. Montez further inquired how long it takes to recover costs. Naveen Barry indicated that cost recovery would depend on when they are charging and how much charge is needed. Dr. Lyou added that some level 2 residential chargers are a few hundred dollars, depending on the amps.

Tyron Turner asked if there were plans to install Tesla's super chargers at AQMD. Naveen Berry indicated that there are ongoing discussions with Tesla about this.

Bill La Marr inquired about the average installation cost for a charging station. Naveen Berry replied that it varies, due to transformer upgrades and line installations.

Art Montez expressed his concern about the increased regulations for electric vehicles and the unknown implementation costs, especially for the public, businesses and stakeholders. Naveen Berry acknowledged the concerns and indicated that the district continues to work with other agencies to address the ancillary costs and infrastructure funding.

Dan McGivney inquired if the majority of the electric vehicles have the same type of battery charger. Naveen Berry indicated that except for Tesla, the electric vehicles have a standard charger.

Art Montez inquired if the pricing of the electric vehicles could be a deterrent for minority or low income communities, since it is about what you can afford. Naveen Berry indicated that there are rebates and a federal tax credit available for electric vehicle purchases, which make these vehicles more affordable. Dr. Lyou mentioned the Replace Your Ride Program and Mr. Berry explained the benefits of the program.

Action Item: Dr. Lyou asked for the statistics for the Replace Your Ride Program to be shared with the Advisory Group.

Lauren Nevitt asked if the Edison or DWP rebates can be layered with South Coast rebates. Naveen Berry replied no. Dr. Fine indicated that the CARB rebates can be layered.

SUBCOMMITTEE STATUS REPORTS

A. *Freight Sustainability (Dan McGivney)*

An update was provided on the following items.

- AQMD indirect source measures
- 2018 Advanced Clean Transportation (ACT) Expo
- Caltrans Freight Mobility Plan
- California Freight Advisory Plan Committee

B. Small Business Considerations *(Bill La Marr)*

An update was provided on the following item.

- Proposed Rule 1469 Working Group
- RECLAIM Working Group
    - RECLAIM Transition Seminar

C. *Environmental Justice and AB 617 Implementation (Curt Coleman)*

An update was provided on the following items.

- CARB's Draft Community Selection Process - Explainer
- SCAQMD's Update on the AB 617 Community Identification Process: Preliminary List

Discussion

Dr. Lyou commented that SCAG has established an environmental justice working group, and also noted that the California Public Utilities Commission is establishing an environmental justice advisory group.

D. *Climate Change (David Rothbart)*

There was no report.

REPORT FROM AND TO THE STATIONARY SOURCE COMMITTEE

Dr. Philip Fine provided a summary of items on the April and May 2018 meeting agendas.

- Proposed Amended Rules 1111, 1146 and 1469
- AB 617 Identification Process

OTHER BUSINESS

Art Montez asked for SCAQMD or CAPCOA to participate in an educational conference in San Francisco to share information about grant opportunities that could benefit schools. Jill Whynot indicated that she would check into this.

Tyron Turner commented on the AQMD's press release the initiation of the Advisory Council to engage young adults and indicated that this is a step in the right direction for outreach and training and to bring awareness to what this agency does. Mr. Turner further asked for an update on outreach to disadvantaged communities. Dr. Lyou agreed and requested that Legislative and Public Affairs be added to the July agenda, for an update on outreach activities.

PUBLIC COMMENT

There were no comments.

ADJOURNMENT

The meeting was adjourned at 11:58 p.m. The next meeting of the Home Rule Advisory Group is scheduled for 10:00 a.m. on July 11, 2018, and will be held at SCAQMD in Conference Room CC-8.

South Coast Air Quality Management District

HOME RULE ADVISORY GROUP – Attendance Record – 2018

	NAME (Term: 1/1/17 - 1/1/2019) Board/Member, Business & Community Reps, SCAQMD Staff	1/10	FEB	3/14	APR	5/9	JUN	7/11	AUG	9/12	OCT	11/14	DEC
1	**Dr. Joseph Lyou, Chair**	X	dark	X	dark	X	dark		dark		dark		dark
2	**Mayor Ben Benoit, Vice Chair**												
3	**Dr. Clark E. Parker, Sr., Governing Board Member**			A		A							
4	**Dr. Philip Fine** (Agency Member) - **SCAQMD**	X		X		X							
5	**Zimpfer, Amy** (Agency Member) - **EPA** *Representing Elizabeth Adams*	T		T*		T							
6	**Raymond, Johnnie** (Agency Member) - **CARB** *Representing Richard Corey*	T*		T*		T							
7	**Chang, Ping** (Agency Member) - **SCAG** *Alternate – Rongsheng Luo*	T*		T*		T*							
8	**Carroll, Mike** (Business Representative) *Alternate – Robert Wyman*	A		A		A							
9	**Coleman, Curtis** (Business Representative) *Alternate – Susan Stark*	X*		X		X							
10	**McCann, Bridget** (Business Representative) *Alternate – Patty Senecal*	X*		X		X							
11	**La Marr, Bill** (Business Representative)	X		X		X							
12	**McGivney, Dan** (Business Representative) *Alternate – Lauren Nevitt*	X		X*		X							
13	**Roberts, Terry** (Environmental Representative)	X		X		A*							
14	**Quinn, Bill** (Business Representative) *Alternate – Janet Whittick*	T		T*		T*							
15	**Downs, Michael** (Community Representative - McCallon)	A		A		A*							
16	**Ferlita, Jaclyn** (Community Representative - Lyou)	A		A		X							
17	**Harrold, Nan** (Community Representative - Nelson)	X		A*		X							
18	**Montez, Art** (Community Representative - Lyou)	A		A		X							
19	**Rothbart, David** (Community Representative - Mitchell)	X		A*		A*							
20	**Rubio, Larry** (Community Representative - Ashley)	A*		T		T							
21	**Smith, Larry** (Community Representative - Benoit)	X		X		A							
22	**Pawling Torres, Kristen** (Community Representative - Kuehl)	A		X		A							
23	**Turner, TyRon** (Community Representative - Burke)	A		X		X							

Attendance Codes					
X	Present	T	Teleconference	A	Absence
X*	Alternate in Attendance	T*	Alternate Teleconference Participation	A*	Absence Excused

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 25

REPORT: Stationary Source Committee

SYNOPSIS: The Stationary Source Committee held a meeting on Friday, August 17, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Ben Benoit, Chair
Stationary Source Committee

LT:eb

Committee Members

Present**:** Mayor Ben Benoit/Chair (videoconference), Dr. Joseph Lyou/Vice Chair, Mayor Pro Tem Judith Mitchell (teleconference), Supervisor Shawn Nelson (videoconference), Supervisor Janice Rutherford (videoconference)

Call to Order

Chair Benoit called the meeting to order at 10:30 a.m.

INFORMATIONAL ITEMS:

1. **Summary of Proposed Amended Rule (PAR) 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities**
   Michael Morris, Manager/Planning, Rule Development and Area Sources, presented a summary of Proposed Amended Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities. Dr. Lyou asked why there are separate categories and limits for simple cycle and combined cycle turbines. Mr. Morris responded that there are differences in the design and the BARCT analysis was specific to the different categories. Dr. Lyou wanted to clarify that the special consideration for the low-use units and equipment close to BARCT emissions limit were not exemptions, but that lower limits for these units are not cost-effective. He expressed concerned that low-use units have higher limits and will be used on the hottest days with bad air quality. Dr. Lyou asked for clarification on what Proposed Amended Rule 1135 would require from the electric power generating units on

Santa Catalina Island. Susan Nakamura, Assistant Deputy Executive Officer/Planning, Rule Development and Area Sources, clarified the three options for this facility. Dr. Lyou asked if there are BARCT limits for PM2.5. Michael Krause, Manager/Planning, Rule Development and Area Sources, responded that Proposed Amended Rule 1135 is a landing rule for NOx RECLAIM. Dr. Laki Tisopulos, Deputy Executive Officer/Engineering and Permitting, added that PM2.5 is considered during the permitting process. Dr. Lyou requested an estimate of the amount of PM2.5 that will be generated with the increased use of ammonia and asked if there are any technology forcing BARCT limits in the proposed rule. Mr. Morris responded that staff will estimate the PM2.5 emissions from ammonia and that the proposed limits are not technology forcing. Supervisor Nelson expressed concern about rate payers on Santa Catalina Island with the conversion of the diesel internal combustion engines. Mr. Morris explained that the costs would be spread across all Southern California Edison rate payers and Mr. Tom Gross of Southern California Edison confirmed.

Mr. Gross commented that Santa Catalina Island is a unique situation due to the fact that it is an island without road access. Southern California Edison is currently going through their Integrated Resource Plan process and looking at alternative generation sources, such as solar; solar with storage; and undersea cables. U.S. EPA is possibly funding a study for the solar project. Mr. Gross said that Southern California Edison needs one year to determine which technology to pursue and additional two years for regulatory approval. Southern California Edison is requesting more time for their project. Dr. Lyou followed up with questions for Southern California Edison about the proposed timetables and stated he is comfortable with the current timetables in the proposed amended rule, but would like to see some flexibility if additional time is needed. Mayor Benoit agreed that Dr. Lyou's approach was fair. Mr. Karl Lany of Montrose Air Quality Services discussed the difference between simple cycle and combined cycle turbines and the need for the different categories and emission limits.

2. Status Report on Reg. XIII – New Source Review

William Thompson, Senior Engineering Manager, Engineering and Permitting, gave a status report on Regulation XIII, specifically the final determination of federal equivalency of the SCAQMD's New Source Review Program (NSR) for Calendar Year 2016.

U.S. EPA requires that a semi-annual aggregate demonstration be made to ensure that the SCAQMD NSR program is equivalent to, or more stringent than, the federal NSR program. SCAQMD Rule 1315 establishes the accounting methodology used in the demonstration of NSR equivalency. The SCAQMD tracks both credits to and debits from the SCAQMD's internal offset accounts on an annual basis, by pollutant, and maintains an annual running balance of all such events. The final running

balance for calendar year 2016 effectively demonstrates a preliminary determination of equivalency of the SCAQMD NSR program to the federal NSR program for that calendar year. Additionally, the projected ending balances for both calendar years 2017 and 2018 are positive, demonstrating that equivalency is projected for both of those calendar years.

An additional requirement contained in the rule is that cumulative emissions from all sources be below thresholds contained in the CEQA document which evaluated Rule 1315. For calendar year 2016, cumulative net emissions were below those thresholds. Additionally, projected amounts were below thresholds for 2017 and 2018.

Mayor Pro Tem Mitchell commented on the table of the federal offset account balances showing the NOx balance surpluses and suggesting that they could be available for RECLAIM facilities exiting the program.

Mr. David Rothbart, representing the Southern California Alliance of Publicly-Owned (SCAP) Treatment Works, commented that the NOx balance was declining while the balances for the other pollutants are increasing. Mr. Thompson explained that the NOx balances were discounted to BARCT levels based on recent adopted rule amendments. The balances change according to permit activities during the review period. The CO balance for calendar year 2016 increased greatly due to shutdown of equipment at two power plants and a cement company.

3. Update on the 2016 AQMP Control Measures for Underfired Charbroilers and Commercial Cooking Equipment

Mr. Tracy Goss, Manager/Planning, Rule Development and Area Sources, provided a briefing on recent research efforts for underfired charbroilers and other commercial cooking equipment. Dr. Lyou inquired if Proposed Rule 1138 will contain measures to control NOx and PM when brought to the Board next year. Dr. Lyou appreciated staff's considerations for small businesses. He stated his concern for emissions of polycyclic aromatic hydrocarbons (PAHs) and the importance of minimizing PAH emission and exposure. He also asked if it would be possible to sample indoor air quality of restaurants and educate them about air flow and the harmful nature of PAHs. Mr. Goss confirmed that the proposed rule will have provisions to limit NOx and PM. Mr. Bill LaMarr, California Small Business Alliance, commented on the possibility of staff considering lowering fat content of processed raw meats as a possible method of lowering emissions of PM and PAHs.

OTHER MATTERS:

4. **Other Business**
   There was no other business.

5. **Public Comment Period**
   Florence Gharibian, Del Amo Action Committee, commented that Rule 1469 - Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, is not ready to go to public comment or public hearing. She commented that the rule is confusing, poorly organized, and difficult to determine what the rule requires. She stated that there is not a threshold level of safety for hexavalent chromium. Ms. Gharibian raised several other issues, including executive officer discretion, rule complexity, definition of sensitive receptors, and fume suppressants and will provide written comments as well.

6. **Next Meeting Date**
   The next Stationary Source Committee meeting is scheduled for Friday, September 21, 2018.

Adjournment
The meeting was adjourned at 11:30 a.m.

Attachment
Attendance Record

ATTACHMENT

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
STATIONARY SOURCE COMMITTEE
Attendance – August 17, 2018

Mayor Ben Benoit (videoconference)	SCAQMD Governing Board
Dr. Joseph Lyou	SCAQMD Governing Board
Mayor Pro Tem Judith Mitchell (teleconference)	SCAQMD Governing Board
Supervisor Shawn Nelson (videoconference)	SCAQMD Governing Board
Supervisor Janice Rutherford (videoconference)	SCAQMD Governing Board
David Czamanske	Board Consultant (Cacciotti)
Ron Ketcham	Board Consultant (McCallon)
Andrew Silva	Board Consultant (Rutherford)
Chuck Casey	Riverside Public Utilities
Florence Gharibian	Del Amo Action Committee
Tom Gross	Southern California Edison
Bill LaMarr	California Small Business Alliance
Karl Lany	Montrose Environmental
Rita Loof	RadTech
Krishna Nand	Environmental Management Professionals
Bill Pearce	Boeing
David Rothbart	Los Angeles County Sanitation Districts
Susan Stark	Andeavor
Kim M. Yapp	Pasadena Water & Power
Barbara Baird	SCAQMD staff
Amir Dejbakhsh	SCAQMD staff
Bayron Gilchrist	SCAQMD staff
Tracy Goss	SCAQMD staff
Susan Nakamura	SCAQMD staff
Matt Miyasato	SCAQMD staff
Mike Morris	SCAQMD staff
Laki Tisopulos	SCAQMD staff
Mike Wickson	SCAQMD staff
Kim White	SCAQMD staff

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BOARD MEETING DATE: September 7, 2018 AGENDA NO. 26

REPORT: Technology Committee

SYNOPSIS: The Technology Committee held a meeting on Friday, July 20, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Judith Mitchell, Acting Chair
Technology Committee

MMM:pmk

Committee Members

Present: Council Member Joe Buscaino/Chair (arrived at 12:17 p.m., listening only from a non-noticed location via teleconference), Mayor Pro Tem Judith Mitchell, Council Member Dwight Robinson, Supervisor Janice Rutherford (videoconference) and Supervisor Hilda L. Solis (videoconference)

Absent: Mayor Larry McCallon

Call to Order

Mayor Pro Tem Mitchell was asked to chair the meeting because Council Member Buscaino was participating via teleconference in listen-only mode at a non-noticed location. Mayor Pro Tem Mitchell called the meeting to order at 12:07 p.m.

ACTION ITEMS:

1. **Recognize and Transfer Funds, Execute and Amend Agreements for Installation and Maintenance of Air Filtration Systems, Reimburse AQ Specialist General Fund for Administrative Costs, and Purchase Electric School Buses**

   U.S. EPA is executing two Supplemental Environmental Project (SEP) agreements and has asked SCAQMD to act as the SEP Implementer to install and maintain air filtration systems at schools. These actions are to recognize up to $575,000 and

transfer up to $225,000 into the Air Filtration Fund (75) as a temporary loan from the Clean Fuels Program Fund (31), pending receipt of the remaining SEP revenue. These actions are to also execute agreements to install and maintain air filtration systems in an amount cumulatively not to exceed $2,035,848, from SEP and LADWP Variance Special Revenue Fund (69); execute or amend access agreements with local school districts; amend contracts to purchase additional filters using unspent administrative funds; and reimburse the General Fund for administrative costs up to $28,750 to administer the SEPs. Finally, this action is to execute a contract to purchase electric school buses in an amount not to exceed $427,460 from LADWP funds.

Council Member Buscaino joined via teleconference (listening only) at 12:17 p.m.

Mayor Pro Tem Mitchell commented that she does not have a financial interest, but is required to identify for the record that she is a Board Member of the California Air Resources Board which is involved in Items #1 and #2.
Supervisor Rutherford inquired about the school location selection process, as well as the frequency and cost of replacement filters. Staff responded that SEPs typically indicate preferred locations for air filtration projects, sited near the areas where violations occurred. Specifically for the Old Dominion Freight Line SEP, schools located within the City of Rialto were prioritized. Staff also estimated the average replacement cost of the filters to be $100, and typical replacement time of one year, which is indicated by a filter replacement sensor.

Moved by Solis; seconded by Robinson; unanimously approved.

Ayes: Mitchell, Robinson, Rutherford and Solis
Noes: None
Absent: Buscaino and McCallon

2. Recognize Revenue from CARB for Carl Moyer Program and EFMP; Transfer and Appropriate Funds, Amend Contract for Implementing Assistance and Reimburse General Fund for Administrative and Outreach Costs for EFMP

CARB has allocated $2,674,384 to SCAQMD under the Voluntary NOx Remediation Measure (NRM) Funding Program. These actions are to recognize $2,674,384 into the Carl Moyer Program Fund (32) and execute a Memorandum of Agreement with CARB for implementation of the NRM Funding Program. Since 2015, SCAQMD has been implementing an Enhanced Fleet Modernization Program (EFMP), branded as Replace Your Ride. For FY 2017-18, CARB allocated SCAQMD an additional $16.4 million in funds to continue implementation of EFMP. These actions are to recognize up to $16.4 million for EFMP, accept terms and conditions of the grant awards, approve vouchers or other alternative mobility

options until all available funds are exhausted, amend a contract for case management and vehicle remote sensing activities in support of EFMP in an amount not to exceed $550,000 from the HEROS II Special Revenue Fund (56), transfer and appropriate up to $65,500 to Science & Technology Advancement's FY 2018-19 or 2019-20 Budget, and reimburse the General Fund for administrative and outreach costs necessary to implement EFMP.

Staff indicated a minor edit will be made in the synopsis of the Board letter before the Board meeting showing $550,000 (not $500,000) from the HEROS II Special Revenue Fund (56) to match the Recommended Action.

Board Member Robinson asked what is the average model year of the vehicles scrapped under the Replace Your Ride Program, and commented the scrapped vehicles have some value and may be suitable for a reuse program. Staff explained SCAQMD is currently working with CARB and other air districts on a reuse program for heavy-duty trucks, and undergoing a pilot project with Puget Sound Clean Air Agency. Staff will continue to work with CARB to explore reuse options for programs with a scrapping requirement. Staff offered to provide the average model year of the vehicles scrapped under the Replace Your Ride Program. [Staff subsequently found the average model year of vehicles scrapped under the Replace Your Ride Program to be 1999.]

Moved by Robinson; seconded by Solis; unanimously approved.

Ayes: Mitchell, Robinson, Rutherford and Solis
Noes: None
Absent: Buscaino and McCallon

3. Amend Contract Awards for Mobile Source Emissions Reduction Projects

In November 2017, the Board approved contract awards for mobile source emissions reduction projects evaluated under the Carl Moyer Program Guidelines and funded by AB 134 Community Air Protection funds. Subsequently, in April 2018, CARB approved a supplement to the Carl Moyer Program Guidelines (Guidelines Supplement) for projects funded specifically under the Community Air Protection Program. The Guidelines Supplement is intended to facilitate immediate emissions reductions in disadvantaged and low-income communities. The Guidelines Supplement preserves the statutory requirements of the Carl Moyer Program, including cost-effectiveness and surplus emissions reductions, while broadening project eligibility and providing higher grant amounts for Community Air Protection projects. After applying the Guidelines Supplement to the AB 134 Board-approved projects, staff determined several projects in disadvantaged and low-income communities now qualify for higher grant amounts. This action is to amend contract

awards for mobile source emissions reduction projects adding up to $4,603,547 to certain projects originally approved from the Community Air Protection AB 134 Fund (77).

Supervisor Rutherford recused herself due to campaign contributions from Bogh Engineering, Inc.

For the record, staff stated one of the original applicants, San-Mar Construction, Inc., has indicated that it will not be accepting an additional award and that it would like to be removed from consideration. As a result, that contract will not be amended and the recommended action for this item will be revised as follows: amend contract awards under the Community Air Protection Program as identified in the attached table, adding up to $4,510,258 for a total award of $42,079,970 from the Community Air Protection AB 134 Fund (77). This is a decrease of $133,163 for the removal of this one project.

In addition, staff indicated a minor administrative edit will be made to the Board letter before the September 7 Board meeting changing one name on the table from Long Beach Police Department to the City of Long Beach.

Council Member Robinson asked why San-Mar Construction, Inc. refused the award. Staff explained the company experienced a change in management since the application was submitted, and the new manager was unfamiliar with their application submittal and the Carl Moyer Program. Staff informed the new management of the proposed grant award and provided information about the Carl Moyer Program; however, the new management was suspicious of our calls and requested that we remove them from the program.

Mr. Drue Delaney of Associates Environmental commented that Associates Environmental has been asked to express appreciation on behalf of many companies listed in the draft Board letter for receiving additional funds through the Community Air Protection Program. Mr. Delaney asked what method was used by SCAQMD staff to allocate the funds. Staff explained that the intent of AB 134 is to obtain immediate emission reductions from projects in disadvantaged and low-income communities, therefore SCAQMD and other air districts have selected projects submitted in 2017 that are located in disadvantaged and low-income communities to receive the first allocation of the Community Action Protection funds. For this year's Carl Moyer Program, there will be additional AB 134 funds available for qualifying projects. The projects submitted in 2018 will be prioritized if they are located in a disadvantaged or low-income community, and then if the program is still oversubscribed, these projects will be selected based on cost-effectiveness.

Moved by Robinson; seconded by Solis; approved as recommended by the following vote.

Ayes: Mitchell, Robinson, and Solis
Noes: None
Abstain: Rutherford
Absent: Buscaino and McCallon

OTHER MATTERS:

4. Other Business:
There was no other business.

5. Public Comment Period:
There were no public comments.

6. Next Meeting Date
The next regular Technology Committee meeting is scheduled for Friday, September 21, 2018 at noon.

Adjournment
The meeting adjourned at 12:32 p.m.

Attachment
Attendance Record

ATTACHMENT

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
TECHNOLOGY COMMITTEE MEETING
Attendance Record – July 20, 2018

Council Member Joe Buscaino (teleconference)	SCAQMD Board Member*
Mayor Pro Tem Judith Mitchell	SCAQMD Board Member
Council Member Dwight Robinson	SCAQMD Board Member
Supervisor Janice Rutherford (videoconference)	SCAQMD Board Member
Supervisor Hilda L. Solis (videoconference)	SCAQMD Board Member
Mark Abramowitz	Board Consultant (Lyou)
David Czamanske	Board Consultant (Cacciotti)
Marisa Perez	Board Consultant (Mitchell)
Drew Delaney	Associates Environmental
Susan Stark	Andeavor
Naveen Berry	SCAQMD Staff
Margarita Cabral	SCAQMD Staff
Marjorie Eaton	SCAQMD Staff
Pat Krayser	SCAQMD Staff
Patricia Kwon	SCAQMD Staff
Lisa Mirisola	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Wayne Nastri	SCAQMD Staff
Walter Shen	SCAQMD Staff
Veronica Sosa	SCAQMD Staff
Veera Tyagi	SCAQMD Staff
Mei Wang	SCAQMD Staff
Vicki White	SCAQMD Staff
Jill Whynot	SCAQMD Staff
Paul Wright	SCAQMD Staff
Adrian Dones	Student Intern

*Listening only, via teleconference

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 27

REPORT: Mobile Source Air Pollution Reduction Review Committee

SYNOPSIS: Below is a summary of key issues addressed at the MSRC's meeting on August 16, 2018. The next meeting is scheduled for Thursday, September 20, 2018, at 2:00 p.m., in Conference Room CC8.

RECOMMENDED ACTION:
Receive and file.

Fred Minassian
SCAQMD Liaison to MSRC

MMM:FM:psc

FYs 2016-18 Local Government Partnership Program

The MSRC approved the release of Local Government Partnership PON2018-01 under the FYs 2016-18 Work Program. The Invitation to Negotiate (ITN), with a targeted funding level of $21,180,650, focuses on providing funds for projects to support SCAQMD's 2016 AQMP. Cities and counties which have opted into the AB 2766 motor vehicle registration surcharge fee program are eligible to participate. The majority of participants would be allocated maximum funding equivalent to their annual AB 2766 Subvention Fund allocation; however, those whose annual Subvention Fund allocation is less than $50,000 would be eligible to receive a maximum of $50,000, and the maximum allocation for any single city or county would be $3,000,000. MSRC funding could be used for light-duty zero emission vehicle purchases and leases, medium- and heavy-duty zero emission vehicle purchases, near-zero emission heavy-duty alternative fuel vehicle purchases and repower, electric vehicle charging station installation, and construction or expansion of alternative fuel refueling infrastructure, subject to match funding requirements as outlined in the ITN. Additionally, those jurisdictions eligible for a maximum contribution of $50,000 would have the option to pursue traffic signal synchronization, bicycle active transportation, and first mile/last mile strategies. The ITN includes an open application period commencing with its release on September 1, 2017, and closing August 2, 2018. The MSRC previously approved awards totaling $8,446,972 in response to this solicitation.

The MSRC approved nineteen additional awards totaling $1,476,700 as part of the FYs 2016-18 Work Program, as follows:

a. A contract with the City of San Fernando in an amount not to exceed $20,000 to implement citywide signal synchronization;
b. A contract with the City of South El Monte in an amount not to exceed $30,000 to install at least two electric vehicle charging stations;
c. A contract with the City of Orange in an amount not to exceed $50,000 to procure up to two heavy-duty near-zero-emission vehicles;
d. A contract with the City of Los Angeles in an amount not to exceed $300,000 to install at least sixty electric vehicle charging stations;
e. A contract with the City of Murrieta in an amount not to exceed $143,520 to install at least four electric vehicle charging stations;
f. A contract with the City of Big Bear Lake in an amount not to exceed $50,000 to install a bicycle path;
g. A contract with the City of Glendora in an amount not to exceed $50,760 to procure a medium-duty zero-emission vehicle;
h. A contract with the City of Santa Clarita in an amount not to exceed $122,000 to install at least eight electric vehicle charging stations;
i. A contract with the City of Temecula in an amount not to exceed $141,000 to install at least sixteen electric vehicle charging stations;
j. A contract with the City of South Pasadena in an amount not to exceed $50,000 to procure up to two light-duty zero-emission vehicles and install at least one electric vehicle charging station;
k. A contract with the City of Monterey Park in an amount not to exceed $25,000 to procure one heavy-duty near-zero-emission vehicle;
l. A contract with the City of Laguna Woods in an amount not to exceed $50,000 to install at least two electric vehicle charging stations;
m. A contract with the City of Gardena in an amount not to exceed $25,000 to procure one heavy-duty near-zero-emission vehicle;
n. A contract with the City of Highland in an amount not to exceed $70,210 to procure one light-duty zero-emission vehicle and install at least three electric vehicle charging stations;
o. A contract with the City of Temple City in an amount not exceed $16,000 to procure up to two light-duty zero-emission vehicles;
p. A contract with the City of Redondo Beach in an amount not to exceed $89,400 to install at least six electric vehicle charging stations;
q. A contract with the City of Laguna Hills in an amount not to exceed $50,000 to install at least six electric vehicle charging stations;
r. A contract with the City of Brea in an amount not to exceed $56,500 to install at least thirteen electric vehicle charging stations; and
s. A contract with the City of Burbank in an amount not to exceed $137,310 to install at least twenty electric vehicle charging stations.

These contract awards will be considered by the SCAQMD Board at its September 7, 2018 meeting.

FYs 2016-18 County Transportation Commission Partnership Program

The MSRC approved release of an Invitation to Negotiate for the CTC Partnership Program under the FYs 2016-18 Work Program. The ITN, with a targeted funding level of $8,000,000, seeks to stimulate the demonstration of innovative projects, as well as expand "tried and true" air quality improvement strategies. CTCs within SCAQMD are eligible to participate. Other public and private entities could participate as subcontractors to a CTC. Each CTC is eligible to receive a maximum of $2,000,000 on a sole-source contract award basis. Eligible project types include, but are not necessarily limited to: capital improvement projects, capital purchase projects including fleet vehicle purchases that meet, at a minimum, ARB's optional 0.02 g/bhp-hr NOx emissions standard, traffic signal coordination, ridesharing programs, active transportation programs including bicycle sharing projects, transit pass incentive programs, freeway service patrols, first mile/last mile strategies, and information technology projects that focus on air quality improvement. The ITN includes an open application period commencing with its release on December 1, 2017, and closing June 29, 2018. The MSRC previously approved awards totaling $6,000,000 in response to this solicitation. The MSRC considered recommendations concerning three work plans submitted by Orange County Transportation Authority (OCTA).

Firstly, OCTA proposes to apply $1,146,000 towards the implementation of the OC Flex Micro-Transit Pilot Project. This is an on-demand and shared-ride service to extend the reach of the fixed-route transit system by providing connections to areas that may not be served by regular transit. The service would provide micro-transit services to low-demand and/or new markets through shared-ride, curb-to-curb/hub-to-hub service in two zones: one in the City of Huntington Beach, and one in the cities of Aliso Viejo, Laguna Niguel, and Mission Viejo. These areas are typically not transit dependent and one of the goals of the program is to attract new riders by connecting them to key transit and train stations. OCTA is projecting the application of $135,000 in fare revenues as project co-funding. The MSRC approved a sole-source contract award to OCTA in an amount not to exceed $1,146,000 as part of the CTC Partnership Program under the FYs 2016-18 Work Program.

Secondly, OCTA proposes to apply $642,000 towards the installation of a hydrogen detection system in several buildings where maintenance, body work, and washing of hydrogen fuel cell buses will occur. The system will include hydrogen gas detectors, hydrogen flame detectors, control panels, electrical conduit and wiring, warning lights and horns, fire alarm interfacing, and system programming, commissioning and testing. OCTA will provide $176,015 in co-funding. The MSRC approved a sole-source contract award to OCTA in an amount not to exceed $642,000 as part of the CTC Partnership Program under the FYs 2016-18 Work Program.

Lastly, OCTA proposes to apply $212,000 towards the College Pass Transit Fare Subsidy Program. The program would provide free rides to students during a special start up period as an incentive to promote the College Pass Program. After the start up period, a student fee to continue the program at the expense of the college and students must be approved by the majority of the students. This would promote transit ridership among college students and reduce automobile trips and vehicle miles travelled. The MSRC approved a sole-source contract award to OCTA in an amount not to exceed $212,000 as part of the CTC Partnership Program under the FYs 2016-18 Work Program. These contract awards will be considered by the SCAQMD Board at its September 7, 2018 meeting.

FYs 2016-18 Major Event Center Transportation Program

As part of its FYs 2016-18 Work Program, the MSRC allocated $5,000,000 for event center transportation programs and released Program Announcement #PA2017-05. The Program Announcement solicits applications from qualifying major event centers and/or transportation providers to provide transportation service for venues not currently served by sufficient transportation service. To date, the MSRC has awarded a total of $3,660,133. The MSRC considered recommendations concerning an additional application submitted by Metrolink. Metrolink requested the MSRC to consider an award of $252,696 to provide special train and shuttle service the Festival of Lights in downtown Riverside. Service would be provided on three service routes beginning with the Friday, November 23 Switch-On Ceremony and continuing through Saturday, December 15. The downtown Riverside Metrolink station is located approximately six to eight blocks from the Festival events; transfer service from the station to the Festival will be provided via Riverside Transit Agency buses. The service will utilize Tier 4 locomotives. Metrolink and its partners are committed to provide at least $262,804 in operations, marketing, advertising and station support co-funding. The MSRC approved a contract award to Metrolink in an amount not to exceed $252,696 as part of the FYs 2016-18 Work Program for the Festival of Lights special train and shuttle service. This contract award will be considered by the SCAQMD Board at its September 7, 2018 meeting.

The MSRC also considered recommendations from its Technical Advisory Committee, and the MSRC-TAC Transportation Control Measure Subcommittee, to not make an award to the Rose Bowl and Foothill Transit, which jointly requested $344,850 in MSRC funding to provide shuttle service for a number of events at the Rose Bowl in 2018. Based on the information provided in the application and subsequent clarifications sought from the proposers, the most significant factor in reaching this recommendation was the lack of the ability to guarantee an emission benefit associated with the project. The buses do not appear to be at capacity for other than a relatively short peak period, the bus deadhead miles will likely significantly exceed the automobile miles eliminated, the buses are not low emitting by today's standards, and having shuttle patrons drive to the pickup location does not eliminate an automobile trip—it only reduces vehicle miles traveled, and that by a small amount. However, the

MSRC suggested that if the service were to be modified, with transit centers as pickup locations, a reduced number of buses, and/or lower-emitting vehicles used to perform the service, it might be eligible if the MSRC offers a similar funding opportunity in the future. These contract awards will be considered by the SCAQMD Board at its September 7, 2018 meeting.

FYs 2016-18 Natural Gas Infrastructure Program

The MSRC approved the release of Program Announcement #PA2017-07 under the FYs 2016-18 Work Program. The Program Announcement, with a targeted funding level of $4.0 million, provides funds for new and expanded natural gas stations, as well as for the upgrade of existing vehicle maintenance facilities and technician training. Stations will be eligible for up to 50 percent of station capital equipment, site construction, signage, and reasonable project management costs, not to exceed the specified maximum award amounts. The maximum MSRC funding per project varies from $100,000 to $275,000 depending upon whether the applicant is a public or private entity, the accessibility level of the proposed project, and the number of fuels offered. Additionally, projects may be eligible for a $100,000 bonus if they commit to use at least 50% renewable natural gas for a minimum of five years. The RFP includes an open application period commencing with its release on June 2, 2017, and closing June 29, 2018. To date, the MSRC has awarded a total of $1,156,500, with $2,843,500 remaining of the original funding allocation. The MSRC considered recommendations concerning twenty additional applications. The MSRC allocated an additional $1,083,180 to the Program as part of the FYs 2018-20 Work Program and approved twenty additional contract awards as part of the FYs 2016-18 and 2018-20 Work Programs, as follows:

a. A contract with R.F. Dickson Company in an amount not to exceed $265,000 to expand an existing public access station, including the use of renewable natural gas, and to train technicians;
b. A contract with Huntington Beach Union High School District in an amount not to exceed $275,000 to expand an existing public access station;
c. A contract with Capistrano Unified School District in an amount not to exceed $116,000 to expand an existing limited access station;
d. A contract with the City of South Gate in an amount not to exceed $175,000 to install a new limited access station;
e. A contract with Mountain View Unified School District in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
f. A contract with Newport-Mesa Unified School District in an amount not to exceed $175,000 to expand an existing limited access station;
g. A contract with Banning Unified School District in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
h. A contract with the City of Torrance in an amount not to exceed $100,000 to expand an existing limited access station;

i. A contract with the County of Los Angeles in an amount not exceed $175,000 to install a new limited access station in La Crescenta;
j. A contract with the City of Commerce in an amount not to exceed $275,000 to expand an existing public access L/CNG station;
k. A contract with the County of Los Angeles in an amount not to exceed $175,000 to install a new limited access station in Downey;
l. A contract with the City of San Bernardino in an amount not to exceed $240,000 to expand an existing public access station and to train technicians;
m. A contract with the City of Beverly Hills in an amount not to exceed $85,272 to expand an existing limited access station;
n. A contract with LBA Realty in an amount not to exceed $100,000 to install a new limited access station;
o. A contract with the City of Redondo Beach in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas;
p. A contract with the City of Montebello in an amount not to exceed $70,408 to expand an existing limited access station;
q. A contract with Universal Waste Systems in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas;
r. A contract with City Rent-A-Bin in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas;
s. A contract with County Sanitation District #2 of Los Angeles County in an amount not to exceed $275,000 to install a new limited access station, including the use of renewable natural gas; and
t. A contract with U.S. Gain in an amount not to exceed $200,000 to install a new limited access station, including the use of renewable natural gas.

These contract awards will be considered by the SCAQMD Board at its September 7, 2018 meeting.

FY 2018-19 Administrative Budget

Every year the MSRC adopts an Administrative Budget for the upcoming fiscal year to ensure costs remain within the limitation, currently 6.25 percent. For FY 2018-19, the MSRC adopted an Administrative Budget in the amount of $763,238, which is nearly $250,000 below the 6.25 percent cap. Administrative expenditures are not directly drawn, however, from the MSRC fund account, but instead from the SCAQMD's budget. The SCAQMD Board will consider authorization of the fund transfer at its September 7, 2018 meeting.

FYs 18-20 Current MSRC Website Hosting and Maintenance

Hosting and maintenance of the MSRC's www.CleanTransportationFunding.org website is provided by Geographics under contract #MS18003. Earlier this year, the MSRC directed its staff to look into the feasibility of adding the Google Translate service to the site. Geographics provided a quote of $600 for this update. While this work could be accomplished within the existing contract balance, it raised concerns that

there might not be sufficient funds to address critical future needs on an urgent basis. The MSRC-TAC identified additional potential updates including the troubleshooting of test e-mails functions, adding a feature for changing the display order of RFP postings, and troubleshooting the Contractor Online Summary function. The MSRC approved the specified updates, as well as a $6,000 contract value increase to implement them with the remaining funds to be applied to the on-call reserve, as part of the FYs 2018-20 Work Program. This contract award will be considered by the SCAQMD Board at its September 7, 2018 meeting.

Contract Modification Requests

The MSRC considered four contract modification requests and took the following actions:

1. For Southern California Association of Governments, Contract #MS18002, which provides $2,500,000 for the Regional Active Transportation Partnership Program, authorize an addition of matching projects and a six-month term extension;
2. For City of Santa Monica, Contract #MS12060, authorize a nine-month no-cost contract extension due to the update of their travel demand forecasting modeling taking longer than expected;
3. For City of Highland, Contract #ML16071, authorize a two-year no-cost contract term extension due to the time-consuming requirements associated with the project's federal Projects of National and Regional Significance program co-funding; and
4. For City of South Pasadena, Contract #ML14066, which provides $142,096 to install a segment of Class I Bikeway, due to the expiration of the prior contract, authorize a replacement contract to complete the scope of work.

Received and Approved Final Reports

The MSRC received and unanimously approved four final report summaries this month as follows:

1. Fullerton Joint Union High School, #MS14075, which provided $300,000 for the expansion of existing CNG infrastructure/maintenance facility modifications.
2. Los Angeles County Metropolitan Transportation Authority (LA Metro), #MS16001, which provided $1,350,000 to implement 2015-16 Seasons of Dodger Stadium Express services.
3. Los Angeles County Metropolitan Transportation Authority (LA Metro), #MS18001, which provided $807,945 to implement 2017 Season of Dodgers Stadium Express service.
4. Southern California Regional Rail Authority (Metrolink), #MS18011, which provided $239,565 for Special Train Service to the Festival of Lights.

Contracts Administrator's Report

The MSRC's AB 2766 Contracts Administrator provides a written status report on all open contracts from FY 2004-05 through the present. The Contracts Administrator's Report for May 31 through July 25, 2018 is attached (*Attachment 1*) for your information.

Attachments

Attachment 1 – August 2018 Contracts Administrator's Report

Clean Transportation Funding from the MSRC
Mobile Source Air Pollution Reduction Review Committee

MSRC Agenda Item No. 2

DATE: August 16, 2018

FROM: Cynthia Ravenstein

SUBJECT: AB 2766 Contracts Administrator's Report

SYNOPSIS: This report covers key issues addressed by MSRC staff, status of open contracts, and administrative scope changes from May 31 to July 25, 2018.

RECOMMENDATION: Receive and file report

WORK PROGRAM IMPACT: None

Contract Execution Status

2016-18 Work Program

On July 8, 2016, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On October 7, 2016, the SCAQMD Governing Board approved three awards under the Event Center Transportation Program and one award for a Regional Active Transportation Partnership Program. These contracts are executed.

On January 6, 2017, the SCAQMD Governing Board approved an award for development, hosting and maintenance of a new MSRC website. This contract is executed.

On April 7, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On June 2, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On July 7, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On September 1, 2017, the SCAQMD Governing Board approved one award under the Event Center Transportation Program and one award under the Natural Gas Infrastructure Program. These contracts are with the prospective contractor for signature or executed.

On October 6, 2017, the SCAQMD Governing Board approved two awards under the Event Center Transportation Program and one award under the Natural Gas Infrastructure Program. These contracts are executed.

On December 1, 2017, the SCAQMD Governing Board approved sole source awards for a Hydrogen Infrastructure Partnership Program, for a Southern California Future Communities Partnership Program, and for electric vehicle charging infrastructure planning analysis. These contracts are with the prospective contractor for signature or with the SCAQMD Board Chair for signature. The MSRC has replaced the award to the California Energy Commission with a Program Opportunity Notice for the Hydrogen Infrastructure Partnership Program.

On February 2, 2018, the SCAQMD Governing Board approved one award under the Event Center Transportation Program, two awards under the Natural Gas Infrastructure Program, four awards under the Local Government Partnership Program, and two awards under the County Transportation Commission Partnership Program. These contracts are under development or executed.

On March 2, 2018, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program, two awards under the Natural Gas Infrastructure Program, and one award under the Local Government Partnership Program. These contracts are under development, with the prospective contractor for signature, or executed.

On April 6, 2018, the SCAQMD Governing Board approved one award under the Natural Gas Infrastructure Program and eight awards under the Local Government Partnership Program. These contracts are under development, with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On May 4, 2018, the SCAQMD Governing Board approved twenty-seven awards under the Local Government Partnership Program and one award under the County Transportation Commission Partnership Program. These contracts are under development, undergoing internal review, with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

2014-16 Work Program

On December 5, 2014, the SCAQMD Governing Board approved an award under the AB118 Enhanced Fleet Maintenance Program. This contract is executed.

On June 5, 2015, the SCAQMD Governing Board approved two awards under the Event Center Transportation Program and one award to provide low-emission transportation services to the Special Olympics World Games. These contracts are executed.

On September 4, 2015, the SCAQMD Governing Board approved 25 awards under the Local Government Match Program and one award under the Transportation Control Measure Partnership Program. These contracts are executed.

On October 2, 2015, the SCAQMD Governing Board approved 11 awards under the Local Government Match Program and one award under the Alternative Fuel Infrastructure Program. These contracts are executed.

On November 6, 2015, the SCAQMD Governing Board approved 37 awards under the Local Government Match Program. These contracts are executed.

On December 4, 2015, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program, one award under the Alternative Fuel Infrastructure Program, and one award under the Transportation Control Measure Partnership Program. These contracts are executed.

On January 8, 2016, the SCAQMD Governing Board approved two awards under the Major Event Center Transportation Program, one award under the Local Government Match Program, and one award under the Transportation Control Measure Partnership Program. These contracts are executed.

On March 4, 2016, the SCAQMD Governing Board approved two awards under the Alternative Fuel Infrastructure Program. These contracts are executed.

On April 1, 2016, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program and five awards under the Transportation Control Measure Partnership Program. These contracts are executed.

On May 6, 2016, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program and one award under the Transportation Control Measure Partnership Program. These contracts are executed.

On June 3, 2016, the SCAQMD Governing Board approved one award under the Alternative Fuel Infrastructure Program. This contract is executed.

On October 7, 2016, the SCAQMD Governing Board approved ten awards under the Alternative Fuel Infrastructure Program and five awards under the Near-Zero Natural Gas Engine Incentives Program. These contracts are under development, with the prospective contractor for signature, or executed. VNG Lakeview has requested that negotiations be extended for an additional eighteen months; this is an item for consideration on the August agenda.

On January 6, 2017, the SCAQMD Governing Board approved an award under the Alternative Fuel Infrastructure Program and an award under the Near-Zero Natural Gas Engine Incentives Program. These contracts are executed.

Work Program Status

Contract Status Reports for work program years with open (including "Open/Complete") and/or pending contracts are attached.

FY 2004-05 Work Program Contracts

One contract from this work program year is open.

FY 2004-05 Invoices Paid

No invoices were paid during this period.

FY 2006-07 Work Program Contracts
No contracts from this work program year are open; and one is in "Open/Complete" status.

FY 2006-07 Invoices Paid
No invoices were paid during this period.

FY 2007-08 Work Program Contracts
3 contracts from this work program year are open; and 2 are in "Open/Complete" status. One contract closed during this period: Regents of the University of California, Contract #MS08068 – Install Hydrogen Station.

FY 2007-08 Invoices Paid
No invoices were paid during this period.

FY 2008-09 Work Program Contracts
One contract from this work program year is open; and 4 are in "Open/Complete" status. One contract closed during this period: City of Fullerton, Contract #ML09035 – Purchase 2 Heavy-Duty CNG Vehicles and Install CNG station.

FY 2008-09 Invoices Paid
No invoices were paid during this period.

FY 2010-11 Work Program Contracts
4 contracts from this work program year are open; and 32 are in "Open/Complete" status. One contract closed during this period: City of Anaheim, Contract #MS11022 – Purchase 5 Heavy-Duty CNG Vehicles.

FY 2010-11 Invoices Paid
No invoices were paid during this period.

FY 2011-12 Work Program Contracts
10 contracts from this work program year are open, and 3 are in "Open/Complete" status. 2 contracts passed into "Open/Complete" status during this period: Bonita Unified School District, Contract #MS12008 – Install New Limited-Access CNG Station; and Brea Olinda Unified School District, Contract #MS12083 – Install New Limited-Access CNG Station. One contract closed during this period: Silverado Stages, Inc., Contract #MS12025 – Purchase 6 Medium-Heavy-Duty CNG Vehicles.

FY 2011-12 Invoices Paid
Two invoices totaling $234,454.00 were paid during this period.

FYs 2012-14 Work Program Contracts
32 contracts from this work program year are open, and 24 are in "Open/Complete" status. 4 contracts closed during this period: City of Brea, Contract #ML14051 – Installation of Bicycle Trail; City of Redlands, Contract #ML14056 – Install Bicycle Lanes; City of Yucaipa, Contract #ML14094 – Install Bicycle Lanes; and Los Angeles County Metropolitan Transportation Authority, Contract #MS14001 – Clean Fuel Transit Service to Dodger Stadium.

FYs 2012-14 Invoices Paid
Three invoices totaling $413,595.00 were paid during this period.

FYs 2014-16 Work Program Contracts
70 contracts from this work program year are open, and 19 are in "Open/Complete" status. 3 contracts passed into "Open/Complete" status during this period: City of Burbank, Contract #ML16059 – Purchase 6 Heavy-Duty Natural Gas Vehicles; Riverside County Department of Public Health, Contract #ML16068 – Implement "Open Streets" Events with Various Cities; and City of Norwalk, Contract #MS16114 – Repower 3 Transit Buses. One contract closed during this period: City of Moreno Valley, Contract #ML16078 – Install Bicycle Infrastructure and Implement Bicycle Education Program.

FYs 2014-16 Invoices Paid
Nine invoices totaling $1,159,294.10 were paid during this period.

FYs 2016-18 Work Program Contracts
23 contracts from this work program year are open.

FYs 2016-18 Invoices Paid
Seven invoices totaling $489,492.47 were paid during this period.

Administrative Scope Changes
3 administrative scope changes were initiated during the period of May 31 to July 25, 2018:

- City of Los Angeles, Contract #ML16016 (Purchase 21 Heavy-Duty CNG Vehicles) – Substitute three truck tractors for three of the street sweepers
- City of Yucaipa, Contract #ML16054 (Implement "Complete Streets" Project) – One-year no-cost term extension
- City of Santa Monica, Contract #MS12061 (Implement Westside Bikeshare Program – Three-month no-cost term extension

Attachments

- FY 2004-05 through FYs 2016-18 (except FY 2005-06 and FY 2009-10) Contract Status Reports

Clean Transportation Funding Database

AB2766 Discretionary Fund Program Invoices

May 31 to July 25, 2018

Contract Admin.	MSRC Chair	MSRC Liaison	Finance	Contract #	Contractor	Invoice #	Amount
2011-2012 Work Program							
6/21/2018	6/21/2018	6/21/2018	6/22/2018	MS12008	Bonita Unified School District	FINAL	$175,000.00
6/21/2018	6/21/2018	6/21/2018	6/22/2018	MS12083	Brea Olinda Unified School District	FINAL	$59,454.00
Total: $234,454.00							
2012-2014 Work Program							
6/26/2018	6/29/2018	6/29/2018	7/10/2018	MS14072	San Bernardino County Transportation Authority	1	$268,800.00
6/8/2018	6/13/2018	6/15/2018	6/20/2018	ML14094	City of Yucaipa	2802-FINAL	$84,795.00
7/12/2018	7/18/2018	7/19/2018	7/25/2018	ML14033	City of Irvine	.93280-FINAl	$60,000.00
Total: $413,595.00							
2014-2016 Work Program							
6/12/2018	6/13/2018	6/15/2018	6/20/2018	ML16016	City of Los Angeles, Department of General Serv	1	$540,000.00
6/12/2018	6/13/2018	6/15/2018	6/20/2018	MS16099	Foothill Transit	1-Final	$50,000.00
6/19/2018	6/21/2018	6/21/2018	6/22/2018	ML16068	Riverside County Dept of Public Health	FINAL	$171,648.00
6/21/2018	6/21/2018	6/21/2018	6/22/2018	MS16103	Arrow Services, Inc.	Final	$10,000.00
6/26/2018	6/29/2018	6/29/2018	7/10/2018	MS16086	San Bernardino County Transportation Authority	4	$42,197.82
6/28/2018	6/29/2018	6/29/2018	7/10/2018	ML16064	County of Orange, OC Parks	P06,07,08-Fi	$84,047.73
7/11/2018	7/18/2018	7/19/2018	7/25/2018	MS16092	San Bernardino County Transportation Authority	2-Final	$157,272.53
7/17/2018				ML16018	City of Hermosa Beach	18943	$23,768.44
7/18/2018	7/18/2018	7/19/2018	7/25/2018	MS16082	Riverside County Transportation Commission	01631	$80,359.58
Total: $1,159,294.10							
2016-2018 Work Program							
7/25/2018				MS18003	Geographics	18-20972	$373.00
7/11/2018	7/18/2018	7/19/2018	7/25/2018	MS18003	Geographics	18-20986	$207.75
6/12/2018	6/13/2018	6/15/2018	6/20/2018	MS18003	Geographics	18-20894,5,6	$1,354.25
6/5/2018	6/13/2018	6/15/2018	6/20/2018	ML18019	City of Hidden Hills	1	$10,000.00
7/17/2018	7/18/2018	7/19/2018	7/25/2018	MS18006	Anaheim Transportation Network	18,58615,59	$9,488.22
7/17/2018	7/18/2018	7/19/2018	7/25/2018	MS18001	Los Angeles County MTA	800068317	$468,050.00
6/21/2018	6/29/2018	6/29/2018	7/10/2018	MS18003	Geographics	18-20925	$19.25

Contract Admin.	MSRC Chair	MSRC Liaison	Finance	Contract #	Contractor	Invoice #	Amount

Total: $489,492.47

Total This Period: $2,296,835.57

Clean Transportation Funding Database

FYs 2004-05 Through 2016-18 AB2766 Contract Status Report

8/9/2018

FY 2004-2005 Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Open Contracts									
ML05014	Los Angeles County Department of P	5/21/2007	11/20/2008	9/20/2018	$204,221.00	$0.00	Traffic Signal Synchronization	$204,221.00	No
Total: 1									
Declined/Cancelled Contracts									
ML05005	City of Highland				$20,000.00	$0.00	2 Medium Duty CNG Vehicles	$20,000.00	No
ML05008	Los Angeles County Department of P				$140,000.00	$0.00	7 Heavy Duty LPG Street Sweepers	$140,000.00	No
ML05010	Los Angeles County Department of P				$20,000.00	$0.00	1 Heavy Duty CNG Bus	$20,000.00	No
MS05030	City of Inglewood				$31,662.00	$0.00	2 CNG Street Sweepers	$31,662.00	No
MS05032	H&C Disposal				$34,068.00	$0.00	2 CNG Waste Haulers	$34,068.00	No
MS05044	City of Colton				$78,720.00	$0.00	CNG Station Upgrade	$78,720.00	No
Total: 6									
Closed Contracts									
ML05006	City of Colton Public Works	7/27/2005	7/26/2006		$30,000.00	$30,000.00	3 Medium Duty CNG Vehicles	$0.00	Yes
ML05011	Los Angeles County Department of P	8/10/2006	12/9/2007	6/9/2008	$52,409.00	$51,048.46	3 Heavy Duty LPG Shuttle Vans	$1,360.54	Yes
ML05013	Los Angeles County Department of P	1/5/2007	7/4/2008	1/4/2013	$313,000.00	$313,000.00	Traffic Signal Synchronization	$0.00	Yes
ML05015	City of Lawndale	7/27/2005	7/26/2006		$10,000.00	$10,000.00	1 Medium Duty CNG Vehicle	$0.00	Yes
ML05016	City of Santa Monica	9/23/2005	9/22/2006	9/22/2007	$350,000.00	$350,000.00	6 MD CNG Vehicles, 1 LPG Sweep, 13 CNG	$0.00	Yes
ML05017	City of Signal Hill	1/16/2006	7/15/2007		$126,000.00	$126,000.00	Traffic Signal Synchronization	$0.00	Yes
ML05018	City of San Bernardino	4/19/2005	4/18/2006		$40,000.00	$40,000.00	4 M.D. CNG Vehicles	$0.00	Yes
ML05019	City of Lakewood	5/6/2005	5/5/2006		$10,000.00	$10,000.00	1 M.D. CNG Vehicle	$0.00	Yes
ML05020	City of Pomona	6/24/2005	6/23/2006		$10,000.00	$10,000.00	1 M.D. CNG Vehicle	$0.00	Yes
ML05021	City of Whittier	7/7/2005	7/6/2006	4/6/2008	$100,000.00	$80,000.00	Sweeper, Aerial Truck, & 3 Refuse Trucks	$20,000.00	Yes
ML05022	City of Claremont	9/23/2005	9/22/2006		$20,000.00	$20,000.00	2 M.D. CNG Vehicles	$0.00	Yes
ML05024	City of Cerritos	4/18/2005	3/17/2006		$10,000.00	$10,000.00	1 M.D. CNG Vehicle	$0.00	Yes
ML05025	City of Malibu	5/6/2005	3/5/2006		$10,000.00	$10,000.00	1 Medium-Duty CNG Vehicle	$0.00	Yes
ML05026	City of Inglewood	1/6/2006	1/5/2007	2/5/2009	$60,000.00	$60,000.00	2 CNG Transit Buses, 1 CNG Pothole Patch	$0.00	Yes
ML05027	City of Beaumont	2/23/2006	4/22/2007	6/22/2010	$20,000.00	$20,000.00	1 H.D. CNG Bus	$0.00	Yes
ML05028	City of Anaheim	9/8/2006	9/7/2007	5/7/2008	$85,331.00	$85,331.00	Traffic signal coordination & synchronization	$0.00	Yes
ML05029	Los Angeles World Airports	5/5/2006	9/4/2007		$140,000.00	$140,000.00	Seven CNG Buses	$0.00	Yes
ML05071	City of La Canada Flintridge	1/30/2009	1/29/2011		$20,000.00	$20,000.00	1 CNG Bus	$0.00	Yes
ML05072	Los Angeles County Department of P	8/24/2009	5/23/2010	1/23/2011	$349,000.00	$349,000.00	Traffic Signal Synchronization (LADOT)	$0.00	Yes
MS05001	A-Z Bus Sales, Inc.	2/4/2005	12/31/2005	12/31/2006	$1,385,000.00	$1,385,000.00	CNG School Bus Buydown	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS05002	California Bus Sales	2/4/2005	12/31/2005	12/31/2006	$1,800,000.00	$1,800,000.00	CNG School Bus Buydown	$0.00	Yes
MS05003	BusWest	1/28/2005	12/31/2005	12/31/2006	$2,100,000.00	$1,620,000.00	CNG School Bus Buydown	$480,000.00	Yes
MS05004	Johnson/Ukropina Creative Marketin	11/27/2004	1/18/2006	4/18/2006	$1,000,000.00	$994,612.56	Implement "Rideshare Thursday" Campaign	$5,387.44	Yes
MS05031	City of Ontario, Housing & Municipal	7/22/2005	3/21/2007		$191,268.00	$191,268.00	11 CNG Waste Haulers	$0.00	Yes
MS05033	Waste Management of the Desert	9/26/2005	5/25/2007		$202,900.00	$202,900.00	10 CNG Waste Haulers	$0.00	Yes
MS05034	Sukut Equipment, Inc.	9/9/2005	5/8/2007		$1,151,136.00	$1,151,136.00	Repower 12 Scrapers	$0.00	Yes
MS05035	Varner Construction Inc.	11/28/2005	4/27/2007	2/27/2008	$334,624.00	$334,624.00	Repower 5 Off-Road H.D. Vehicles	$0.00	Yes
MS05036	Camarillo Engineering	8/18/2005	1/17/2007		$1,167,276.00	$1,167,276.00	Repower 12 Scrapers	$0.00	Yes
MS05037	Road Builders, Inc.	11/21/2005	4/20/2007	6/20/2008	$229,302.00	$229,302.00	Repower 2 Scrapers	$0.00	Yes
MS05038	SunLine Transit Agency	3/30/2006	9/29/2007		$135,000.00	$135,000.00	15 CNG Buses	$0.00	Yes
MS05039	Los Angeles County MTA	4/28/2006	4/27/2008		$405,000.00	$405,000.00	75 CNG Buses	$0.00	Yes
MS05040	Orange County Transportation Autho	3/23/2006	12/22/2007	6/22/2008	$200,000.00	$200,000.00	25 CNG Buses	$0.00	Yes
MS05041	The Regents of the University of Cali	9/5/2006	8/4/2007	9/4/2008	$15,921.00	$15,921.00	CNG Station Upgrade	$0.00	Yes
MS05042	City of Ontario, Housing & Municipal	11/21/2005	9/20/2006	7/20/2007	$117,832.00	$74,531.27	CNG Station Upgrade	$43,300.73	Yes
MS05043	Whittier Union High School District	9/23/2005	7/22/2006		$15,921.00	$15,921.00	CNG Station Upgrade	$0.00	Yes
MS05045	City of Covina	9/9/2005	7/8/2006		$10,000.00	$7,435.61	CNG Station Upgrade	$2,564.39	Yes
MS05046	City of Inglewood	1/6/2006	5/5/2007		$139,150.00	$56,150.27	CNG Station Upgrade	$82,999.73	Yes
MS05047	Orange County Transportation Autho	10/20/2005	10/19/2006	1/19/2007	$75,563.00	$75,563.00	CNG Station Upgrade	$0.00	Yes
MS05048	City of Santa Monica	7/24/2006	11/23/2007		$150,000.00	$150,000.00	CNG Station Upgrade	$0.00	Yes
MS05049	Omnitrans	9/23/2005	2/22/2007		$25,000.00	$7,250.00	CNG Station Upgrade	$17,750.00	Yes
MS05050	Gateway Cities Council of Governme	12/21/2005	4/20/2010		$1,464,839.00	$1,464,838.12	Truck Fleet Modernization Program	$0.88	Yes
MS05051	Jagur Tractor	1/16/2006	4/15/2007	10/15/2007	$660,928.00	$660,928.00	Repower 6 Scrapers	$0.00	Yes
MS05052	Caufield Equipment, Inc.	8/3/2005	1/2/2007		$478,000.00	$478,000.00	Repower 4 Scrapers	$0.00	Yes
MS05070	Haaland Internet Productions (HIP D	6/24/2005	5/31/2007	11/30/2011	$100,715.00	$92,458.24	Design, Host & Maintain MSRC Website	$8,256.76	Yes
Total: 44									
Closed/Incomplete Contracts									
ML05007	Los Angeles County Dept of Beache	6/23/2006	6/22/2007	12/22/2007	$50,000.00	$0.00	5 Medium Duty CNG Vehicles	$50,000.00	No
ML05009	Los Angeles County Department of P	6/22/2006	12/21/2007	9/30/2011	$56,666.00	$0.00	2 Propane Refueling Stations	$56,666.00	No
ML05012	Los Angeles County Department of P	11/10/2006	5/9/2008	1/9/2009	$349,000.00	$0.00	Traffic Signal Synchronization (LADOT)	$349,000.00	No
ML05023	City of La Canada Flintridge	3/30/2005	2/28/2006	8/28/2008	$20,000.00	$0.00	1 CNG Bus	$20,000.00	No
Total: 4									

FY 2006-2007 Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Declined/Cancelled Contracts									
ML07031	City of Santa Monica				$180,000.00	$0.00	Upgrade N.G. Station to Add Hythane	$180,000.00	No
ML07032	City of Huntington Beach Public Wor				$25,000.00	$0.00	One H.D. CNG Vehicle	$25,000.00	No
ML07035	City of Los Angeles, General Service				$350,000.00	$0.00	New CNG Refueling Station/Southeast Yard	$350,000.00	No
ML07038	City of Palos Verdes Estates				$25,000.00	$0.00	One H.D. LPG Vehicle	$25,000.00	No
MS07010	Palos Verdes Peninsula Transit Auth				$80,000.00	$0.00	Repower 4 Transit Buses	$80,000.00	No
MS07014	Clean Energy Fuels Corp.				$350,000.00	$0.00	New L/CNG Station - SERRF	$350,000.00	No
MS07015	Baldwin Park Unified School District				$57,500.00	$0.00	New CNG Station	$57,500.00	No
MS07016	County of Riverside Fleet Services D				$36,359.00	$0.00	New CNG Station - Rubidoux	$36,359.00	No
MS07017	County of Riverside Fleet Services D				$33,829.00	$0.00	New CNG Station - Indio	$33,829.00	No
MS07018	City of Cathedral City				$350,000.00	$0.00	New CNG Station	$350,000.00	No
MS07021	City of Riverside				$350,000.00	$0.00	New CNG Station	$350,000.00	No
MS07050	Southern California Disposal Co.				$320,000.00	$0.00	Ten Nat. Gas Refuse Trucks	$320,000.00	No
MS07062	Caltrans Division of Equipment				$1,081,818.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$1,081,818.00	No
MS07065	ECCO Equipment Corp.				$174,525.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$174,525.00	No
MS07067	Recycled Materials Company of Calif				$99,900.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$99,900.00	No
MS07069	City of Burbank	5/9/2008	3/8/2010	9/8/2011	$8,895.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$8,895.00	No
MS07074	Albert W. Davies, Inc.	1/25/2008	11/24/2009		$39,200.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$39,200.00	No
MS07081	Clean Diesel Technologies, Inc.				$240,347.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$240,347.00	No
MS07082	DCL International, Inc.				$153,010.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$153,010.00	No
MS07083	Dinex Exhausts, Inc.				$52,381.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$52,381.00	No
MS07084	Donaldson Company, Inc.				$42,416.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$42,416.00	No
MS07085	Engine Control Systems Limited				$155,746.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$155,746.00	No
MS07086	Huss, LLC				$84,871.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$84,871.00	No
MS07087	Mann+Hummel GmbH				$189,361.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$189,361.00	No
MS07088	Nett Technologies, Inc.				$118,760.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$118,760.00	No
MS07089	Rypos, Inc.				$68,055.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$68,055.00	No
MS07090	Sud-Chemie				$27,345.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$27,345.00	No
Total: 27									
Closed Contracts									
ML07023	City of Riverside	6/20/2008	10/19/2014	7/19/2016	$462,500.00	$461,476.42	CNG Station Expansion/Purch. 14 H.D. Vehi	$1,023.58	Yes
ML07024	City of Garden Grove	3/7/2008	9/6/2014	7/6/2016	$75,000.00	$75,000.00	Three H.D. CNG Vehicles	$0.00	Yes
ML07025	City of San Bernardino	8/12/2008	7/11/2010		$350,000.00	$350,000.00	Maintenance Facility Modifications	$0.00	Yes
ML07026	City of South Pasadena	6/13/2008	6/12/2014		$25,000.00	$25,000.00	One H.D. CNG Vehicle	$0.00	Yes
ML07027	Los Angeles World Airports	6/3/2008	7/2/2014		$25,000.00	$25,000.00	One H.D. LNG Vehicle	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML07028	City of Los Angeles, General Service	3/13/2009	3/12/2014		$350,000.00	$350,000.00	New CNG Refueling Station/Hollywood Yard	$0.00	Yes
ML07029	City of Los Angeles, General Service	3/13/2009	3/12/2014		$350,000.00	$350,000.00	New CNG Refueling Station/Venice Yard	$0.00	Yes
ML07030	County of San Bernardino Public Wo	7/11/2008	9/10/2015		$200,000.00	$200,000.00	8 Natural Gas H.D. Vehicles	$0.00	Yes
ML07033	City of La Habra	5/21/2008	6/20/2014	11/30/2013	$25,000.00	$25,000.00	One H.D. Nat Gas Vehicle	$0.00	Yes
ML07034	City of Los Angeles, General Service	3/13/2009	3/12/2014		$350,000.00	$350,000.00	New CNG Refueling Station/Van Nuys Yard	$0.00	Yes
ML07036	City of Alhambra	1/23/2009	2/22/2015		$50,000.00	$50,000.00	2 H.D. CNG Vehicles	$0.00	Yes
ML07037	City of Los Angeles, General Service	10/8/2008	10/7/2015		$255,222.00	$255,222.00	Upgrade LNG/LCNG Station/East Valley Yar	$0.00	Yes
ML07039	City of Baldwin Park	6/6/2008	6/5/2014	8/5/2015	$50,000.00	$50,000.00	Two N.G. H.D. Vehicles	$0.00	Yes
ML07040	City of Moreno Valley	6/3/2008	9/2/2014		$25,000.00	$25,000.00	One Heavy-Duty CNG Vehicle	$0.00	Yes
ML07041	City of La Quinta	6/6/2008	6/5/2014		$25,000.00	$25,000.00	One CNG Street Sweeper	$0.00	Yes
ML07042	City of La Quinta	8/15/2008	9/14/2010		$100,000.00	$100,000.00	Street Sweeping Operations	$0.00	Yes
ML07043	City of Redondo Beach	9/28/2008	7/27/2014	10/27/2016	$125,000.00	$125,000.00	Five H.D. CNG Transit Vehicles	$0.00	Yes
ML07044	City of Santa Monica	9/8/2008	3/7/2015	3/7/2017	$600,000.00	$600,000.00	24 H.D. Nat. Gas Vehicles	$0.00	Yes
ML07046	City of Culver City Transportation De	5/2/2008	5/1/2014		$25,000.00	$25,000.00	One H.D. Nat. Gas Vehicle	$0.00	Yes
ML07047	City of Cathedral City	6/16/2008	9/15/2014	3/15/2015	$225,000.00	$225,000.00	Two H.D. Nat. Gas Vehicles/New CNG Fueli	$0.00	Yes
ML07048	City of Cathedral City	9/19/2008	10/18/2010		$100,000.00	$84,972.45	Street Sweeping Operations	$15,027.55	Yes
MS07001	A-Z Bus Sales, Inc.	12/28/2006	12/31/2007	2/29/2008	$1,920,000.00	$1,380,000.00	CNG School Bus Buydown	$540,000.00	Yes
MS07002	BusWest	1/19/2007	12/31/2007	3/31/2008	$840,000.00	$840,000.00	CNG School Bus Buydown	$0.00	Yes
MS07003	Westport Fuel Systems, Inc.	11/2/2007	12/31/2011	6/30/2013	$1,500,000.00	$1,499,990.00	Advanced Nat. Gas Engine Incentive Progra	$10.00	Yes
MS07005	S-W Compressors	3/17/2008	3/16/2010		$60,000.00	$7,500.00	Mountain CNG School Bus Demo Program-	$52,500.00	Yes
MS07006	Coachella Valley Association of Gov	2/28/2008	10/27/2008		$400,000.00	$400,000.00	Coachella Valley PM10 Reduction Street Sw	$0.00	Yes
MS07007	Los Angeles World Airports	5/2/2008	11/1/2014		$420,000.00	$420,000.00	Purchase CNG 21 Transit Buses	$0.00	Yes
MS07008	City of Los Angeles, Department of T	9/18/2009	5/17/2020	9/17/2017	$1,900,000.00	$1,900,000.00	Purchase 95 Transit Buses	$0.00	Yes
MS07009	Orange County Transportation Autho	5/14/2008	4/13/2016		$800,000.00	$800,000.00	Purchase 40 Transit Buses	$0.00	Yes
MS07011	L A Service Authority for Freeway E	3/12/2010	5/31/2011	9/30/2011	$700,000.00	$700,000.00	"511" Commuter Services Campaign	$0.00	Yes
MS07012	City of Los Angeles, General Service	6/13/2008	6/12/2009	6/12/2010	$50,000.00	$50,000.00	Maintenance Facility Modifications	$0.00	Yes
MS07013	Rainbow Disposal Company, Inc.	1/25/2008	3/24/2014	9/24/2014	$350,000.00	$350,000.00	New High-Volume CNG Station	$0.00	Yes
MS07019	City of Cathedral City	1/9/2009	6/8/2010		$32,500.00	$32,500.00	Maintenance Facility Modifications	$0.00	Yes
MS07020	Avery Petroleum	5/20/2009	7/19/2015		$250,000.00	$250,000.00	New CNG Station	$0.00	Yes
MS07049	Palm Springs Disposal Services	10/23/2008	11/22/2014	9/22/2016	$96,000.00	$96,000.00	Three Nat. Gas Refuse Trucks	$0.00	Yes
MS07051	City of San Bernardino	8/12/2008	12/11/2014		$480,000.00	$480,000.00	15 Nat. Gas Refuse Trucks	$0.00	Yes
MS07052	City of Redlands	7/30/2008	11/29/2014		$160,000.00	$160,000.00	Five Nat. Gas Refuse Trucks	$0.00	Yes
MS07053	City of Claremont	7/31/2008	12/30/2014		$96,000.00	$96,000.00	Three Nat. Gas Refuse Trucks	$0.00	Yes
MS07054	Republic Services, Inc.	3/7/2008	9/6/2014	9/6/2016	$1,280,000.00	$1,280,000.00	40 Nat. Gas Refuse Trucks	$0.00	Yes
MS07055	City of Culver City Transportation De	7/8/2008	9/7/2014		$192,000.00	$192,000.00	Six Nat. Gas Refuse Trucks	$0.00	Yes
MS07056	City of Whittier	9/5/2008	3/4/2015		$32,000.00	$32,000.00	One Nat. Gas Refuse Trucks	$0.00	Yes
MS07057	CR&R, Inc.	7/31/2008	8/30/2014	6/30/2015	$896,000.00	$896,000.00	28 Nat. Gas Refuse Trucks	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS07058	The Better World Group	11/17/2007	11/16/2009	11/16/2011	$247,690.00	$201,946.21	MSRC Programmatic Outreach Services	$45,743.79	Yes
MS07059	County Sanitation Districts of L.A. Co	9/5/2008	9/4/2010	7/14/2012	$231,500.00	$231,500.00	Off-Road Diesel Equipment Retrofit Program	$0.00	Yes
MS07060	Community Recycling & Resource R	3/7/2008	1/6/2010	7/6/2011	$177,460.00	$98,471.00	Off-Road Diesel Equipment Retrofit Program	$78,989.00	Yes
MS07061	City of Los Angeles, Department of	10/31/2008	8/30/2010	2/28/2013	$40,626.00	$40,626.00	Off-Road Diesel Equipment Retrofit Program	$0.00	Yes
MS07063	Shimmick Construction Company, In	4/26/2008	2/25/2010	8/25/2011	$80,800.00	$11,956.37	Off-Road Diesel Equipment Retrofit Program	$68,843.63	Yes
MS07064	Altfillisch Contractors, Inc.	9/19/2008	7/18/2010	1/18/2011	$160,000.00	$155,667.14	Off-Road Diesel Equipment Retrofit Program	$4,332.86	Yes
MS07068	Sukut Equipment Inc.	1/23/2009	11/22/2010	5/22/2012	$26,900.00	$26,900.00	Off-Road Diesel Equipment Retrofit Program	$0.00	Yes
MS07070	Griffith Company	4/30/2008	2/28/2010	8/28/2012	$168,434.00	$125,504.00	Off-Road Diesel Equipment Retrofit Program	$42,930.00	Yes
MS07071	Tiger 4 Equipment Leasing	9/19/2008	7/18/2010	1/18/2013	$210,937.00	$108,808.97	Off-Road Diesel Equipment Retrofit Program	$102,128.03	Yes
MS07072	City of Culver City Transportation De	4/4/2008	2/3/2010	8/3/2011	$72,865.00	$72,865.00	Off-Road Diesel Equipment Retrofit Program	$0.00	Yes
MS07075	Dan Copp Crushing	9/17/2008	7/16/2010	1/16/2012	$73,600.00	$40,200.00	Off-Road Diesel Equipment Retrofit Program	$33,400.00	Yes
MS07076	Reed Thomas Company, Inc.	8/15/2008	6/14/2010	3/14/2012	$339,073.00	$100,540.00	Off-Road Diesel Equipment Retrofit Program	$238,533.00	Yes
MS07077	USA Waste of California, Inc.	5/1/2009	12/31/2014		$160,000.00	$160,000.00	Five Nat. Gas Refuse Trucks (Santa Ana)	$0.00	Yes
MS07078	USA Waste of California, Inc.	5/1/2009	12/31/2014	12/31/2015	$256,000.00	$256,000.00	Eight Nat. Gas Refuse Trucks (Dewey's)	$0.00	Yes
MS07079	Riverside County Transportation Co	1/30/2009	7/29/2013	12/31/2011	$20,000.00	$15,165.45	BikeMetro Website Migration	$4,834.55	Yes
MS07080	City of Los Angeles Bureau of Sanita	10/31/2008	8/30/2010	8/28/2016	$63,192.00	$62,692.00	Off-Road Diesel Equipment Retrofit Program	$500.00	No
MS07091	BusWest	10/16/2009	3/15/2010		$33,660.00	$33,660.00	Provide Lease for 2 CNG School Buses	$0.00	Yes
MS07092	Riverside County Transportation Co	9/1/2010	10/31/2011		$350,000.00	$350,000.00	"511" Commuter Services Campaign	$0.00	Yes
Total: 60									
Closed/Incomplete Contracts									
ML07045	City of Inglewood	2/6/2009	4/5/2015		$75,000.00	$25,000.00	3 H.D. Nat. Gas Vehicles	$50,000.00	No
MS07004	BusWest	7/2/2007	7/1/2009		$90,928.00	$68,196.00	Provide Lease for 2 CNG School Buses	$22,732.00	No
MS07066	Skanska USA Civil West California D	6/28/2008	4/27/2010	10/27/2010	$111,700.00	$36,128.19	Off-Road Diesel Equipment Retrofit Program	$75,571.81	No
MS07073	PEED Equipment Co.	10/31/2008	8/30/2010		$11,600.00	$0.00	Off-Road Diesel Equipment Retrofit Program	$11,600.00	No
Total: 4									
Open/Complete Contracts									
MS07022	CSULA Hydrogen Station and Resea	10/30/2009	12/29/2015	10/29/2019	$250,000.00	$250,000.00	New Hydrogen Fueling Station	$0.00	Yes
Total: 1									

FY 2007-2008 Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Open Contracts									
ML08028	City of Santa Monica	9/11/2009	9/10/2016	5/10/2019	$600,000.00	$0.00	24 CNG Heavy-Duty Vehicles	$600,000.00	No
MS08007	United Parcel Service West Region	12/10/2008	10/9/2014	4/9/2019	$300,000.00	$270,000.00	10 H.D. Nat. Gas Vehicles	$30,000.00	Yes
MS08013	United Parcel Service West Region	12/10/2008	10/9/2014	3/9/2019	$480,000.00	$432,000.00	12 H.D. Nat. Gas Yard Tractors	$48,000.00	No
Total: 3									
Declined/Cancelled Contracts									
ML08032	City of Irvine	5/1/2009	8/31/2010		$9,000.00	$0.00	36 Vehicles (Diagnostic)	$9,000.00	No
ML08041	City of Los Angeles, Dept of Transpo	8/6/2010	7/5/2011	12/5/2011	$8,800.00	$0.00	73 Vehicles (Diagnostic)	$8,800.00	No
ML08049	City of Cerritos	3/20/2009	1/19/2015	2/19/2017	$25,000.00	$0.00	1 CNG Heavy-Duty Vehicle	$25,000.00	No
ML08051	City of Colton				$75,000.00	$0.00	3 CNG Heavy-Duty Vehicles	$75,000.00	No
ML08080	City of Irvine	5/1/2009	5/31/2015		$50,000.00	$0.00	Two Heavy-Duty Nat. Gas Vehicles	$50,000.00	No
MS08002	Orange County Transportation Autho				$1,500,000.00	$0.00	Big Rig Freeway Service Patrol	$1,500,000.00	No
MS08008	Diversified Truck Rental & Leasing				$300,000.00	$0.00	10 H.D. Nat. Gas Vehicles	$300,000.00	No
MS08010	Orange County Transportation Autho				$10,000.00	$0.00	20 H.D. Nat. Gas Vehicles	$10,000.00	No
MS08011	Green Fleet Systems, LLC				$10,000.00	$0.00	30 H.D. Nat. Gas Vehicles	$10,000.00	No
MS08052	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014	11/23/2015	$100,000.00	$0.00	New CNG Station - Fontana	$100,000.00	No
MS08054	Clean Energy Fuels Corp.				$400,000.00	$0.00	New LNG Station - Fontana	$400,000.00	No
MS08055	Clean Energy Fuels Corp.	11/26/2009	3/25/2016	3/25/2017	$400,000.00	$0.00	New LNG Station - Long Beach-Pier S	$400,000.00	No
MS08059	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014		$100,000.00	$0.00	New CNG Station - San Bernardino	$100,000.00	No
MS08060	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014		$100,000.00	$0.00	New CNG Station - Azusa	$100,000.00	No
MS08062	Go Natural Gas	9/25/2009	1/24/2016	1/24/2017	$400,000.00	$0.00	New CNG Station - Rialto	$400,000.00	No
MS08074	Fontana Unified School District	11/14/2008	12/13/2014		$200,000.00	$0.00	Expansion of Existing CNG station	$200,000.00	No
MS08077	Hythane Company, LLC				$144,000.00	$0.00	Upgrade Station to Hythane	$144,000.00	No
Total: 17									
Closed Contracts									
ML08023	City of Villa Park	11/7/2008	10/6/2012		$6,500.00	$5,102.50	Upgrade of Existing Refueling Facility	$1,397.50	Yes
ML08024	City of Anaheim	7/9/2010	7/8/2017	1/8/2018	$425,000.00	$425,000.00	9 LPG Buses and 8 CNG Buses	$0.00	Yes
ML08026	Los Angeles County Department of P	7/20/2009	7/19/2016		$250,000.00	$250,000.00	10 LPG Heavy-Duty Vehicles	$0.00	Yes
ML08027	Los Angeles County Department of P	7/20/2009	1/19/2011	1/19/2012	$6,901.00	$5,124.00	34 Vehicles (Diagnostic)	$1,777.00	Yes
ML08029	City of Gardena	3/19/2009	1/18/2015		$25,000.00	$25,000.00	1 Propane Heavy-Duty Vehicle	$0.00	Yes
ML08030	City of Azusa	5/14/2010	3/13/2016		$25,000.00	$25,000.00	1 CNG Heavy-Duty Vehicle	$0.00	No
ML08031	City of Claremont	3/27/2009	3/26/2013	3/26/2015	$97,500.00	$97,500.00	Upgrade of Existing CNG Station, Purchase	$0.00	Yes
ML08033	County of San Bernardino Public Wo	4/3/2009	2/2/2010		$14,875.00	$14,875.00	70 Vehicles (Diagnostic)	$0.00	Yes
ML08034	County of San Bernardino Public Wo	3/27/2009	7/26/2015		$150,000.00	$150,000.00	8 CNG Heavy-Duty Vehicles	$0.00	Yes
ML08035	City of La Verne	3/6/2009	11/5/2009		$11,925.00	$11,925.00	53 Vehicles (Diagnostic)	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML08036	City of South Pasadena	5/12/2009	7/11/2013		$169,421.00	$169,421.00	New CNG Station	$0.00	Yes
ML08037	City of Glendale	5/20/2009	5/19/2015		$325,000.00	$325,000.00	13 CNG Heavy-Duty Vehicles	$0.00	Yes
ML08038	Los Angeles Department of Water an	7/16/2010	7/15/2017		$1,050,000.00	$1,050,000.00	42 CNG Heavy-Duty Vehicles	$0.00	Yes
ML08039	City of Rancho Palos Verdes	6/5/2009	8/4/2015		$50,000.00	$50,000.00	2 LPG Transit Buses	$0.00	Yes
ML08042	City of Ontario, Housing & Municipal	5/1/2009	1/31/2016		$175,000.00	$175,000.00	7 CNG Heavy-Duty Vehicles	$0.00	Yes
ML08044	City of Chino	3/19/2009	3/18/2015		$25,000.00	$25,000.00	1 CNG Heavy-Duty Vehicle	$0.00	Yes
ML08045	City of Santa Clarita	2/20/2009	6/19/2010		$3,213.00	$3,150.00	14 Vehicles (Diagnostic)	$63.00	Yes
ML08046	City of Paramount	2/20/2009	2/19/2015		$25,000.00	$25,000.00	1 CNG Heavy-Duty Vehicle	$0.00	Yes
ML08047	City of Culver City Transportation De	5/12/2009	8/11/2015		$150,000.00	$150,000.00	6 CNG Heavy-Duty Vehicles	$0.00	Yes
ML08048	City of Santa Clarita	2/20/2009	6/19/2015		$25,000.00	$25,000.00	1 CNG Heavy-Duty Vehicle	$0.00	Yes
ML08050	City of Laguna Beach Public Works	8/12/2009	4/11/2016	10/11/2016	$75,000.00	$75,000.00	3 LPG Trolleys	$0.00	Yes
MS08001	Los Angeles County MTA	12/10/2010	6/9/2014		$1,500,000.00	$1,499,999.66	Big Rig Freeway Service Patrol	$0.34	Yes
MS08003	A-Z Bus Sales, Inc.	5/2/2008	12/31/2008	2/28/2009	$1,480,000.00	$1,400,000.00	Alternative Fuel School Bus Incentive Progra	$80,000.00	Yes
MS08004	BusWest	5/2/2008	12/31/2008		$1,440,000.00	$1,440,000.00	Alternative Fuel School Bus Incentive Progra	$0.00	Yes
MS08005	Burrtec Waste Industries, Inc.	10/23/2008	11/22/2014	10/22/2015	$450,000.00	$450,000.00	15 H.D. Nat. Gas Vehicles - Azusa	$0.00	Yes
MS08006	Burrtec Waste Industries, Inc.	10/23/2008	11/22/2014	10/22/2015	$450,000.00	$450,000.00	15 H.D. Nat. Gas Vehicles - Saugus	$0.00	Yes
MS08009	Los Angeles World Airports	12/24/2008	12/23/2014		$870,000.00	$870,000.00	29 H.D. Nat. Gas Vehicles	$0.00	Yes
MS08012	California Cartage Company, LLC	12/21/2009	10/20/2015	4/20/2016	$480,000.00	$480,000.00	12 H.D. Nat. Gas Yard Tractors	$0.00	Yes
MS08014	City of San Bernardino	12/5/2008	6/4/2015		$390,000.00	$360,000.00	13 H.D. Nat. Gas Vehicles	$30,000.00	Yes
MS08015	Yosemite Waters	5/12/2009	5/11/2015		$180,000.00	$117,813.60	11 H.D. Propane Vehicles	$62,186.40	Yes
MS08016	TransVironmental Solutions, Inc.	1/23/2009	12/31/2010	9/30/2011	$227,198.00	$80,351.34	Rideshare 2 School Program	$146,846.66	Yes
MS08017	Omnitrans	12/13/2008	12/12/2015	12/12/2016	$900,000.00	$900,000.00	30 CNG Buses	$0.00	Yes
MS08018	Los Angeles County Department of P	8/7/2009	10/6/2016	4/6/2018	$60,000.00	$60,000.00	2 CNG Vehicles	$0.00	Yes
MS08019	Enterprise Rent-A-Car Company of L	2/12/2010	7/11/2016		$300,000.00	$300,000.00	10 CNG Vehicles	$0.00	Yes
MS08020	Ware Disposal Company, Inc.	11/25/2008	2/24/2016		$900,000.00	$900,000.00	30 CNG Vehicles	$0.00	Yes
MS08021	CalMet Services, Inc.	1/9/2009	1/8/2016	7/8/2016	$900,000.00	$900,000.00	30 CNG Vehicles	$0.00	Yes
MS08022	SunLine Transit Agency	12/18/2008	3/17/2015		$311,625.00	$311,625.00	15 CNG Buses	$0.00	Yes
MS08053	City of Los Angeles, Bureau of Sanit	2/18/2009	12/17/2015		$400,000.00	$400,000.00	New LNG/CNG Station	$0.00	Yes
MS08056	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		$400,000.00	$400,000.00	New LNG Station - POLB-Anah. & I	$0.00	Yes
MS08057	Orange County Transportation Autho	5/14/2009	7/13/2015		$400,000.00	$400,000.00	New CNG Station - Garden Grove	$0.00	Yes
MS08058	Clean Energy Fuels Corp.	11/26/2009	3/25/2016	3/25/2017	$400,000.00	$400,000.00	New CNG Station - Ontario Airport	$0.00	Yes
MS08061	Clean Energy Fuels Corp.	12/4/2009	3/3/2015		$400,000.00	$400,000.00	New CNG Station - L.A.-La Cienega	$0.00	Yes
MS08063	Go Natural Gas	9/25/2009	1/24/2016	1/24/2017	$400,000.00	$400,000.00	New CNG Station - Moreno Valley	$0.00	Yes
MS08064	Hemet Unified School District	1/9/2009	3/8/2015		$75,000.00	$75,000.00	Expansion of Existing Infrastructure	$0.00	Yes
MS08065	Pupil Transportation Cooperative	11/20/2008	7/19/2014		$10,500.00	$10,500.00	Existing CNG Station Modifications	$0.00	Yes
MS08066	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		$400,000.00	$400,000.00	New CNG Station - Palm Spring Airport	$0.00	Yes
MS08067	Trillium CNG	3/19/2009	6/18/2015	6/18/2016	$311,600.00	$254,330.00	New CNG Station	$57,270.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS08069	Perris Union High School District	6/5/2009	8/4/2015	8/4/2016	$225,000.00	$225,000.00	New CNG Station	$0.00	Yes
MS08070	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		$400,000.00	$400,000.00	New CNG Station - Paramount	$0.00	Yes
MS08071	ABC Unified School District	1/16/2009	1/15/2015		$63,000.00	$63,000.00	New CNG Station	$0.00	Yes
MS08072	Clean Energy Fuels Corp.	12/4/2009	3/3/2015		$400,000.00	$354,243.38	New CNG Station - Burbank	$45,756.62	Yes
MS08073	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		$400,000.00	$400,000.00	New CNG Station - Norwalk	$0.00	Yes
MS08075	Disneyland Resort	12/10/2008	2/1/2015		$200,000.00	$200,000.00	Expansion of Existing CNG Infrastructure	$0.00	Yes
MS08076	Azusa Unified School District	10/17/2008	11/16/2014	1/31/2017	$172,500.00	$172,500.00	New CNG station and maint. Fac. Modificati	$0.00	Yes
MS08078	SunLine Transit Agency	12/10/2008	6/9/2015	2/9/2016	$189,000.00	$189,000.00	CNG Station Upgrade	$0.00	Yes
MS09002	A-Z Bus Sales, Inc.	11/7/2008	12/31/2009	12/31/2010	$2,520,000.00	$2,460,000.00	Alternative Fuel School Bus Incentive Progra	$60,000.00	Yes
MS09004	A-Z Bus Sales, Inc.	1/30/2009	3/31/2009		$156,000.00	$156,000.00	Alternative Fuel School Bus Incentive Progra	$0.00	Yes
MS09047	BusWest	7/9/2010	12/31/2010	4/30/2011	$480,000.00	$480,000.00	Alternative Fuel School Bus Incentive Progra	$0.00	Yes
Total: 58									
Closed/Incomplete Contracts									
ML08025	Los Angeles County Department of P	10/30/2009	3/29/2011		$75,000.00	$0.00	150 Vehicles (Diagnostic)	$75,000.00	No
MS08068	Regents of the University of Californi	11/5/2010	11/4/2017	11/4/2019	$400,000.00	$0.00	Hydrogen Station	$400,000.00	No
MS08079	ABC Unified School District	1/16/2009	12/15/2009	12/15/2010	$50,000.00	$0.00	Maintenance Facility Modifications	$50,000.00	No
Total: 3									
Open/Complete Contracts									
ML08040	City of Riverside	9/11/2009	9/10/2016	3/10/2019	$455,500.00	$455,500.00	16 CNG Vehicles, Expand CNG Station & M	$0.00	Yes
ML08043	City of Desert Hot Springs	9/25/2009	3/24/2016	3/24/2021	$25,000.00	$25,000.00	1 CNG Heavy-Duty Vehicle	$0.00	Yes
Total: 2									

FY 2008-2009 Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Open Contracts									
ML09033	City of Beverly Hills	3/4/2011	5/3/2017	1/3/2019	$550,000.00	$100,000.00	10 Nat. Gas Heavy-Duty Vehicles & CNG St	$450,000.00	No
Total: 1									
Declined/Cancelled Contracts									
ML09017	County of San Bernardino Public Wo	1/28/2010	7/27/2016		$200,000.00	$0.00	8 Nat. Gas Heavy-Duty Vehicles	$200,000.00	No
ML09018	Los Angeles Department of Water an	7/16/2010	9/15/2012		$850,000.00	$0.00	Retrofit 85 Off-Road Vehicles w/DECS	$850,000.00	No
ML09019	City of San Juan Capistrano Public	12/4/2009	11/3/2010		$10,125.00	$0.00	Remote Vehicle Diagnostics/45 Vehicles	$10,125.00	No
ML09022	Los Angeles County Department of P				$8,250.00	$0.00	Remote Vehicle Diagnostics/15 Vehicles	$8,250.00	No
ML09025	Los Angeles County Department of P	10/15/2010	12/14/2012	6/14/2013	$50,000.00	$0.00	Remote Vehicle Diagnostics/85 Vehicles	$50,000.00	No
ML09028	Riverside County Waste Manageme				$140,000.00	$0.00	Retrofit 7 Off-Road Vehicles w/DECS	$140,000.00	No
ML09039	City of Inglewood				$310,000.00	$0.00	Purchase 12 H.D. CNG Vehicles and Remot	$310,000.00	No
ML09040	City of Cathedral City				$83,125.00	$0.00	Purchase 3 H.D. CNG Vehicles and Remote	$83,125.00	No
ML09044	City of San Dimas				$425,000.00	$0.00	Install CNG Station and Purchase 1 CNG S	$425,000.00	No
ML09045	City of Orange				$125,000.00	$0.00	Purchase 5 CNG Sweepers	$125,000.00	No
MS09003	FuelMaker Corporation				$296,000.00	$0.00	Home Refueling Apparatus Incentives	$296,000.00	No
Total: 11									
Closed Contracts									
ML09007	City of Rancho Cucamonga	2/26/2010	4/25/2012		$117,500.00	$62,452.57	Maintenance Facility Modification	$55,047.43	Yes
ML09008	City of Culver City Transportation De	1/19/2010	7/18/2016	7/18/2017	$175,000.00	$175,000.00	8 Nat. Gas Heavy-Duty Vehicles	$0.00	Yes
ML09010	City of Palm Springs	1/8/2010	2/7/2016		$25,000.00	$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	$0.00	Yes
ML09011	City of San Bernardino	2/19/2010	5/18/2016		$250,000.00	$250,000.00	10 Nat. Gas Heavy-Duty Vehicles	$0.00	Yes
ML09012	City of Gardena	3/12/2010	11/11/2015		$25,000.00	$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	$0.00	Yes
ML09013	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	$144,470.00	$128,116.75	Traffic Signal Synchr./Moreno Valley	$16,353.25	Yes
ML09014	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	$113,030.00	$108,495.94	Traffic Signal Synchr./Corona	$4,534.06	Yes
ML09015	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	$80,060.00	$79,778.52	Traffic Signal Synchr./Co. of Riverside	$281.48	Yes
ML09016	County of San Bernardino Public Wo	1/28/2010	3/27/2014		$50,000.00	$50,000.00	Install New CNG Station	$0.00	Yes
ML09020	County of San Bernardino	8/16/2010	2/15/2012		$49,770.00	$49,770.00	Remote Vehicle Diagnostics/252 Vehicles	$0.00	Yes
ML09021	City of Palm Desert	7/9/2010	3/8/2012		$39,450.00	$38,248.87	Traffic Signal Synchr./Rancho Mirage	$1,201.13	Yes
ML09023	Los Angeles County Department of P	12/10/2010	12/9/2017		$50,000.00	$50,000.00	2 Heavy-Duty Alternative Fuel Transit Vehicl	$0.00	Yes
ML09024	Los Angeles County Department of P	10/15/2010	12/14/2012	6/14/2013	$400,000.00	$0.00	Maintenance Facility Modifications	$400,000.00	No
ML09027	Los Angeles County Department of P	7/23/2010	3/22/2012	6/22/2012	$150,000.00	$150,000.00	Freeway Detector Map Interface	$0.00	Yes
ML09029	City of Whittier	11/6/2009	4/5/2016		$25,000.00	$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	$0.00	Yes
ML09030	City of Los Angeles GSD/Fleet Servi	6/18/2010	6/17/2011		$22,310.00	$22,310.00	Remote Vehicle Diagnostics/107 Vehicles	$0.00	Yes
ML09031	City of Los Angeles, Department of	10/29/2010	10/28/2017		$825,000.00	$825,000.00	33 Nat. Gas Heavy-Duty Vehicles	$0.00	Yes
ML09032	Los Angeles World Airports	4/8/2011	4/7/2018		$175,000.00	$175,000.00	7 Nat. Gas Heavy-Duty Vehicles	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML09034	City of La Palma	11/25/2009	6/24/2015		$25,000.00	$25,000.00	1 LPG Heavy-Duty Vehicle	$0.00	Yes
ML09035	City of Fullerton	6/17/2010	6/16/2017	6/16/2018	$450,000.00	$450,000.00	2 Heavy-Duty CNG Vehicles & Install CNG	$0.00	Yes
ML09037	City of Redondo Beach	6/18/2010	6/17/2016		$50,000.00	$50,000.00	Purchase Two CNG Sweepers	$0.00	Yes
ML09038	City of Chino	9/27/2010	5/26/2017		$250,000.00	$250,000.00	Upgrade Existing CNG Station	$0.00	Yes
ML09041	City of Los Angeles, Bureau of Sanit	10/1/2010	9/30/2017		$875,000.00	$875,000.00	Purchase 35 H.D. Nat. Gas Vehicles	$0.00	Yes
ML09042	Los Angeles Department of Water an	12/10/2010	12/9/2017		$1,400,000.00	$1,400,000.00	Purchase 56 Dump Trucks	$0.00	Yes
ML09046	City of Newport Beach	5/20/2010	5/19/2016		$162,500.00	$162,500.00	Upgrade Existing CNG Station, Maintenance	$0.00	Yes
ML09047	Los Angeles County Department of P	8/13/2014	8/12/2015	11/12/2015	$400,000.00	$272,924.53	Maintenance Facility Modifications	$127,075.47	No
MS09001	Administrative Services Co-Op/Long	3/5/2009	6/30/2012	12/31/2013	$225,000.00	$150,000.00	15 CNG Taxicabs	$75,000.00	Yes
MS09005	Gas Equipment Systems, Inc.	6/19/2009	10/18/2010		$71,000.00	$71,000.00	Provide Temp. Fueling for Mountain Area C	$0.00	Yes
Total: 28									
Open/Complete Contracts									
ML09009	City of South Pasadena	11/5/2010	12/4/2016	3/4/2019	$125,930.00	$125,930.00	CNG Station Expansion	$0.00	Yes
ML09026	Los Angeles County Department of P	10/15/2010	10/14/2017	4/14/2019	$150,000.00	$80,411.18	3 Off-Road Vehicles Repowers	$69,588.82	Yes
ML09036	City of Long Beach Fleet Services B	5/7/2010	5/6/2017	11/6/2022	$875,000.00	$875,000.00	Purchase 35 Natural Gas Refuse Trucks	$0.00	Yes
ML09043	City of Covina	10/8/2010	4/7/2017	10/7/2018	$179,591.00	$179,591.00	Upgrade Existing CNG Station	$0.00	Yes
Total: 4									

FY 2010-2011 Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Open Contracts									
ML11029	City of Santa Ana	9/7/2012	3/6/2020	3/6/2023	$262,500.00	$75,000.00	Expansion of Existing CNG Station, Install N	$187,500.00	No
ML11032	City of Gardena	3/2/2012	9/1/2018	10/1/2020	$102,500.00	$0.00	Purchase Heavy-Duty CNG Vehicle, Install	$102,500.00	No
ML11045	City of Newport Beach	2/3/2012	8/2/2018	3/2/2021	$30,000.00	$0.00	Purchase 1 Nat. Gas H.D. Vehicle	$30,000.00	No
MS11065	Temecula Valley Unified School Distr	8/11/2012	1/10/2019		$50,000.00	$46,112.64	Expansion of Existing CNG Station	$3,887.36	No
Total: 4									
Declined/Cancelled Contracts									
ML11038	City of Santa Monica	5/18/2012	7/17/2018		$400,000.00	$0.00	Maintenance Facility Modifications	$400,000.00	No
MS11013	Go Natural Gas, Inc.				$150,000.00	$0.00	New CNG Station - Huntington Beach	$150,000.00	No
MS11014	Go Natural Gas, Inc.				$150,000.00	$0.00	New CNG Station - Santa Ana	$150,000.00	No
MS11015	Go Natural Gas, Inc.				$150,000.00	$0.00	New CNG Station - Inglewood	$150,000.00	No
MS11046	Luis Castro				$40,000.00	$0.00	Repower One Heavy-Duty Vehicle	$40,000.00	No
MS11047	Ivan Borjas				$40,000.00	$0.00	Repower One Heavy-Duty Vehicle	$40,000.00	No
MS11048	Phase II Transportation				$1,080,000.00	$0.00	Repower 27 Heavy-Duty Vehicles	$1,080,000.00	No
MS11049	Ruben Caceras				$40,000.00	$0.00	Repower One Heavy-Duty Vehicle	$40,000.00	No
MS11050	Carlos Arrue				$40,000.00	$0.00	Repower One Heavy-Duty Vehicle	$40,000.00	No
MS11051	Francisco Vargas				$40,000.00	$0.00	Repower One Heavy-Duty Vehicle	$40,000.00	No
MS11053	Jose Ivan Soltero				$40,000.00	$0.00	Repower One Heavy-Duty Vehicle	$40,000.00	No
MS11054	Albino Meza				$40,000.00	$0.00	Repower One Heavy-Duty Vehicle	$40,000.00	No
MS11059	Go Natural Gas				$150,000.00	$0.00	New Public Access CNG Station - Paramou	$150,000.00	No
MS11063	Standard Concrete Products				$310,825.00	$0.00	Retrofit Two Off-Road Vehicles under Showc	$310,825.00	No
MS11070	American Honda Motor Company				$100,000.00	$0.00	Expansion of Existing CNG Station	$100,000.00	No
MS11072	Trillium USA Company DBA Californi				$150,000.00	$0.00	New Public Access CNG Station	$150,000.00	No
MS11077	DCL America Inc.				$263,107.00	$0.00	Retrofit of 13 Off-Road Diesel Vehicles with	$263,107.00	No
MS11083	Cattrac Construction, Inc.				$500,000.00	$0.00	Install DECS on Eight Off-Road Vehicles	$500,000.00	No
MS11084	Ivanhoe Energy Services and Develo				$66,750.00	$0.00	Retrofit One H.D. Off-Road Vehicle Under S	$66,750.00	No
MS11088	Diesel Emission Technologies				$32,750.00	$0.00	Retrofit Three H.D. Off-Road Vehicles Under	$32,750.00	No
MS11089	Diesel Emission Technologies				$9,750.00	$0.00	Retrofit One H.D. Off-Road Vehicle Under S	$9,750.00	No
MS11090	Diesel Emission Technologies				$14,750.00	$0.00	Retrofit One H.D. Off-Road Vehicle Under S	$14,750.00	No
Total: 22									
Closed Contracts									
ML11007	Coachella Valley Association of Gov	7/29/2011	7/28/2012		$250,000.00	$249,999.96	Regional PM10 Street Sweeping Program	$0.04	Yes
ML11022	City of Anaheim	3/16/2012	7/15/2018		$150,000.00	$150,000.00	Purchase of 5 H.D. Vehicles	$0.00	Yes
ML11027	City of Los Angeles, Dept. of Genera	5/4/2012	7/3/2015	1/3/2016	$300,000.00	$300,000.00	Maintenance Facility Modifications	$0.00	Yes
ML11028	City of Glendale	1/13/2012	5/12/2018		$300,000.00	$300,000.00	Purchase 10 H.D. CNG Vehicles	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML11030	City of Fullerton	2/3/2012	3/2/2018		$109,200.00	$109,200.00	Purchase 2 Nat. Gas H.D. Vehicles, Retrofit	$0.00	Yes
ML11035	City of La Quinta	11/18/2011	11/17/2012		$25,368.00	$25,368.00	Retrofit 3 On-Road Vehicles w/DECS	$0.00	Yes
ML11042	City of Chino	2/17/2012	4/16/2018		$30,000.00	$30,000.00	Purchase 1 Nat. Gas H.D. Vehicle, Repower	$0.00	Yes
MS11001	Mineral LLC	4/22/2011	4/30/2013	4/30/2015	$111,827.00	$103,136.83	Design, Develop, Host and Maintain MSRC	$8,690.17	Yes
MS11002	A-Z Bus Sales, Inc.	7/15/2011	12/31/2011	6/30/2013	$1,705,000.00	$1,705,000.00	Alternative Fuel School Bus Incentive Progra	$0.00	Yes
MS11003	BusWest	7/26/2011	12/31/2011	12/31/2012	$1,305,000.00	$1,305,000.00	Alternative Fuel School Bus Incentive Progra	$0.00	Yes
MS11004	Los Angeles County MTA	9/9/2011	2/29/2012		$450,000.00	$299,743.34	Clean Fuel Transit Service to Dodger Stadiu	$150,256.66	Yes
MS11006	Orange County Transportation Autho	10/7/2011	2/29/2012	8/31/2012	$268,207.00	$160,713.00	Metrolink Service to Angel Stadium	$107,494.00	Yes
MS11017	CR&R, Inc.	3/2/2012	2/1/2018		$100,000.00	$100,000.00	Expansion of existing station - Garden Grove	$0.00	Yes
MS11018	Orange County Transportation Autho	10/14/2011	1/31/2012		$211,360.00	$211,360.00	Express Bus Service to Orange County Fair	$0.00	Yes
MS11052	Krisda Inc	9/27/2012	6/26/2013		$120,000.00	$120,000.00	Repower Three Heavy-Duty Vehicles	$0.00	Yes
MS11056	The Better World Group	12/30/2011	12/29/2013	12/29/2015	$206,836.00	$186,953.46	Programmatic Outreach Services	$19,882.54	Yes
MS11057	Riverside County Transportation Co	7/28/2012	3/27/2013		$100,000.00	$89,159.40	Develop and Implement 511 "Smart Phone"	$10,840.60	Yes
MS11058	L A Service Authority for Freeway E	5/31/2013	4/30/2014		$123,395.00	$123,395.00	Implement 511 "Smart Phone" Application	$0.00	Yes
MS11061	Eastern Municipal Water District	3/29/2012	5/28/2015		$11,659.00	$1,450.00	Retrofit One Off-Road Vehicle under Showc	$10,209.00	Yes
MS11062	Load Center	9/7/2012	1/6/2016	12/6/2016	$175,384.00	$169,883.00	Retrofit Six Off-Road Vehicles under Showc	$5,501.00	Yes
MS11074	SunLine Transit Agency	5/11/2012	7/31/2012		$41,849.00	$22,391.00	Transit Service for Coachella Valley Festival	$19,458.00	Yes
MS11080	Southern California Regional Rail Au	4/6/2012	7/31/2012		$26,000.00	$26,000.00	Metrolink Service to Auto Club Speedway	$0.00	Yes
MS11086	DCL America Inc.	6/7/2013	10/6/2016		$500,000.00	$359,076.96	Retrofit Eight H.D. Off-Road Vehicles Under	$140,923.04	Yes
MS11087	Cemex Construction Material Pacific,	10/16/2012	2/15/2016		$448,766.00	$448,760.80	Retrofit 13 H.D. Off-Road Vehicles Under Sh	$5.20	Yes
MS11091	California Cartage Company, LLC	4/5/2013	8/4/2016	2/4/2018	$55,000.00	$0.00	Retrofit Two H.D. Off-Road Vehicles Under	$55,000.00	No
MS11092	Griffith Company	2/15/2013	6/14/2016	12/14/2017	$390,521.00	$78,750.00	Retrofit 17 H.D. Off-Road Vehicles Under Sh	$311,771.00	No
Total: 26									
Closed/Incomplete Contracts									
MS11064	City of Hawthorne	7/28/2012	8/27/2018	8/27/2019	$175,000.00	$0.00	New Limited Access CNG Station	$175,000.00	No
MS11076	SA Recycling, LLC	5/24/2012	9/23/2015		$424,801.00	$0.00	Retrofit of 13 Off-Road Diesel Vehicles with	$424,801.00	No
MS11081	Metropolitan Stevedore Company	9/7/2012	1/6/2016		$45,416.00	$0.00	Install DECS on Two Off-Road Vehicles	$45,416.00	No
MS11082	Baumot North America, LLC	8/2/2012	12/1/2015		$65,958.00	$4,350.00	Install DECS on Four Off-Road Vehicles	$61,608.00	Yes
MS11085	City of Long Beach Fleet Services B	8/23/2013	12/22/2016		$159,012.00	$0.00	Retrofit Seven H.D. Off-Road Vehicles Unde	$159,012.00	No
Total: 5									
Open/Complete Contracts									
ML11020	City of Indio	2/1/2013	3/31/2019	9/30/2020	$15,000.00	$9,749.50	Retrofit one H.D. Vehicles w/DECS, repower	$5,250.50	Yes
ML11021	City of Whittier	1/27/2012	9/26/2018	6/26/2019	$210,000.00	$210,000.00	Purchase 7 Nat. Gas H.D. Vehicles	$0.00	Yes
ML11023	City of Rancho Cucamonga	4/20/2012	12/19/2018	9/19/2020	$260,000.00	$260,000.00	Expand Existing CNG Station, 2 H.D. Vehicl	$0.00	Yes
ML11024	County of Los Angeles, Dept of Publi	12/5/2014	6/4/2022		$90,000.00	$90,000.00	Purchase 3 Nat. Gas H.D. Vehicles	$0.00	Yes
ML11025	County of Los Angeles Department o	3/14/2014	9/13/2021		$150,000.00	$150,000.00	Purchase 5 Nat. Gas H.D. Vehicles	$0.00	Yes
ML11026	City of Redlands	3/2/2012	10/1/2018		$90,000.00	$90,000.00	Purchase 3 Nat. Gas H.D. Vehicles	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML11031	City of Culver City Transportation De	12/2/2011	12/1/2018		$300,000.00	$300,000.00	Purchase 10 H.D. Nat. Gas Vehicles	$0.00	Yes
ML11033	City of Los Angeles, Bureau of Sanit	3/16/2012	1/15/2019		$1,080,000.00	$1,080,000.00	Purchase 36 LNG H.D. Vehicles	$0.00	Yes
ML11034	City of Los Angeles, Department of	5/4/2012	1/3/2019		$630,000.00	$630,000.00	Purchase 21 H.D. CNG Vehicles	$0.00	Yes
ML11036	City of Riverside	1/27/2012	1/26/2019	3/26/2021	$670,000.00	$670,000.00	Install New CNG Station, Purchase 9 H.D. N	$0.00	Yes
ML11037	City of Anaheim	12/22/2012	12/21/2019		$300,000.00	$300,000.00	Purchase 12 Nat. Gas H.D. Vehicles	$0.00	Yes
ML11039	City of Ontario, Housing & Municipal	1/27/2012	9/26/2018		$180,000.00	$180,000.00	Purchase 6 Nat. Gas H.D. Vehicles	$0.00	Yes
ML11040	City of South Pasadena	5/4/2012	1/3/2019	1/3/2022	$30,000.00	$30,000.00	Purchase 1 Nat. Gas H.D. Vehicle	$0.00	Yes
ML11041	City of Santa Ana	9/7/2012	11/6/2018	1/6/2021	$265,000.00	$244,651.86	Purchase 7 LPG H.D. Vehicles, Retrofit 6 H.	$20,348.14	Yes
ML11043	City of Hemet Public Works	2/3/2012	2/2/2019		$60,000.00	$60,000.00	Purchase 2 H.D. Nat. Gas Vehicles	$0.00	Yes
ML11044	City of Ontario, Housing & Municipal	1/27/2012	6/26/2019		$400,000.00	$400,000.00	Expand Existing CNG Station	$0.00	Yes
MS11008	USA Waste of California, Inc.	10/24/2013	4/23/2020		$125,000.00	$125,000.00	Expansion of Existing LCNG Station	$0.00	Yes
MS11009	USA Waste of California, Inc.	10/24/2013	4/23/2020		$125,000.00	$125,000.00	Expansion of Existing LCNG Station	$0.00	Yes
MS11010	Border Valley Trading	8/26/2011	10/25/2017	4/25/2020	$150,000.00	$150,000.00	New LNG Station	$0.00	Yes
MS11011	EDCO Disposal Corporation	12/30/2011	4/29/2019		$100,000.00	$100,000.00	New CNG Station - Signal Hill	$0.00	Yes
MS11012	EDCO Disposal Corporation	12/30/2011	4/29/2019		$100,000.00	$100,000.00	New CNG Station - Buena Park	$0.00	Yes
MS11016	CR&R Incorporated	4/12/2013	10/11/2019		$100,000.00	$100,000.00	New CNG Station - Perris	$0.00	Yes
MS11019	City of Corona	11/29/2012	4/28/2020		$225,000.00	$225,000.00	Expansion of Existing CNG Station	$0.00	Yes
MS11055	KEC Engineering	2/3/2012	8/2/2018	8/2/2019	$200,000.00	$200,000.00	Repower 5 H.D. Off-Road Vehicles	$0.00	Yes
MS11060	Rowland Unified School District	8/17/2012	1/16/2019	1/16/2020	$175,000.00	$175,000.00	New Limited Access CNG Station	$0.00	Yes
MS11066	Torrance Unified School District	11/19/2012	9/18/2018		$42,296.00	$42,296.00	Expansion of Existing CNG Station	$0.00	Yes
MS11067	City of Redlands	5/24/2012	11/23/2018	11/23/2019	$85,000.00	$85,000.00	Expansion of Existing CNG Station	$0.00	Yes
MS11068	Ryder System Inc.	7/28/2012	10/27/2018		$175,000.00	$175,000.00	New Public Access L/CNG Station (Fontana)	$0.00	Yes
MS11069	Ryder System Inc.	7/28/2012	8/27/2018		$175,000.00	$175,000.00	New Public Access L/CNG Station (Orange)	$0.00	Yes
MS11071	City of Torrance Transit Department	12/22/2012	1/21/2019	1/21/2020	$175,000.00	$166,250.00	New Limited Access CNG Station	$8,750.00	Yes
MS11073	Los Angeles Unified School District	9/11/2015	2/10/2022		$175,000.00	$175,000.00	Expansion of Existing CNG Station	$0.00	Yes
MS11079	Bear Valley Unified School District	2/5/2013	10/4/2019		$175,000.00	$175,000.00	New Limited Access CNG Station	$0.00	Yes

Total: 32

FY 2011-2012 Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Open Contracts									
ML12014	City of Santa Ana	11/8/2013	8/7/2020		$384,000.00	$4,709.00	9 H.D. Nat. Gas & LPG Trucks, EV Charging	$379,291.00	No
ML12018	City of West Covina	10/18/2013	10/17/2020	8/17/2023	$300,000.00	$0.00	Expansion of Existing CNG Station	$300,000.00	No
ML12043	City of Hemet	6/24/2013	9/23/2019		$60,000.00	$0.00	Two Heavy-Duty Nat. Gas Vehicles	$60,000.00	No
ML12045	City of Baldwin Park DPW	2/14/2014	12/13/2020	6/13/2022	$400,000.00	$0.00	Install New CNG Station	$400,000.00	No
ML12051	City of Bellflower	2/7/2014	2/6/2016	5/6/2018	$100,000.00	$0.00	EV Charging Infrastructure	$100,000.00	No
ML12057	City of Coachella	8/28/2013	8/27/2019	1/27/2022	$57,456.00	$40,375.80	Purchase One Nat. Gas H.D. Vehicle/Street	$17,080.20	No
ML12090	City of Palm Springs	10/9/2015	10/8/2021		$21,163.00	$0.00	EV Charging Infrastructure	$21,163.00	No
MS12060	City of Santa Monica	4/4/2014	8/3/2017	11/3/2018	$500,000.00	$434,202.57	Implement Westside Bikeshare Program	$65,797.43	No
MS12077	City of Coachella	6/14/2013	6/13/2020		$225,000.00	$0.00	Construct New CNG Station	$225,000.00	No
MS12084	Airport Mobil Inc.	12/6/2013	5/5/2020		$150,000.00	$0.00	Install New CNG Infrastructure	$150,000.00	No
Total: 10									
Declined/Cancelled Contracts									
ML12016	City of Cathedral City	1/4/2013	10/3/2019		$60,000.00	$0.00	CNG Vehicle & Electric Vehicle Infrastructur	$60,000.00	No
ML12038	City of Long Beach Public Works				$26,000.00	$0.00	Electric Vehicle Charging Infrastructure	$26,000.00	No
ML12040	City of Duarte				$30,000.00	$0.00	One Heavy-Duty Nat. Gas Vehicle	$30,000.00	No
ML12044	County of San Bernardino Public Wo				$250,000.00	$0.00	Install New CNG Station	$250,000.00	No
ML12048	City of La Palma	1/4/2013	11/3/2018		$20,000.00	$0.00	Two Medium-Duty LPG Vehicles	$20,000.00	No
ML12052	City of Whittier	3/14/2013	7/13/2019		$165,000.00	$0.00	Expansion of Existing CNG Station	$165,000.00	No
ML12053	City of Mission Viejo				$60,000.00	$0.00	EV Charging Infrastructure	$60,000.00	No
MS12007	WestAir Gases & Equipment				$100,000.00	$0.00	Construct New Limited-Acess CNG Station	$100,000.00	No
MS12027	C.V. Ice Company, Inc.	5/17/2013	11/16/2019		$75,000.00	$0.00	Purchase 3 Medium-Heavy Duty Vehicles	$75,000.00	No
MS12030	Complete Landscape Care, Inc.				$150,000.00	$0.00	Purchase 6 Medium-Heavy Duty Vehicles	$150,000.00	No
MS12067	Leatherwood Construction, Inc.	11/8/2013	3/7/2017		$122,719.00	$0.00	Retrofit Six Vehicles w/DECS - Showcase III	$122,719.00	No
MS12070	Valley Music Travel/CID Entertainme				$99,000.00	$0.00	Implement Shuttle Service to Coachella Mus	$99,000.00	No
Total: 12									
Closed Contracts									
ML12013	City of Pasadena	10/19/2012	3/18/2015	9/18/2015	$200,000.00	$65,065.00	Electric Vehicle Charging Infrastructure	$134,935.00	Yes
ML12019	City of Palm Springs	9/6/2013	7/5/2015		$38,000.00	$16,837.00	EV Charging Infrastructure	$21,163.00	Yes
ML12021	City of Rancho Cucamonga	9/14/2012	1/13/2020		$40,000.00	$40,000.00	Four Medium-Duty Nat. Gas Vehicles	$0.00	Yes
ML12023	County of Los Angeles Internal Servi	8/1/2013	2/28/2015		$250,000.00	$192,333.00	EV Charging Infrastructure	$57,667.00	Yes
ML12037	Coachella Valley Association of Gov	3/14/2013	3/13/2014		$250,000.00	$250,000.00	Street Sweeping Operations	$0.00	Yes
ML12041	City of Anaheim Public Utilities Depa	4/4/2014	11/3/2015	11/3/2017	$68,977.00	$38,742.16	EV Charging Infrastructure	$30,234.84	Yes
ML12042	City of Chino Hills	1/18/2013	3/17/2017		$87,500.00	$87,500.00	Expansion of Existing CNG Station	$0.00	Yes
ML12049	City of Rialto Public Works	7/14/2014	9/13/2015		$30,432.00	$3,265.29	EV Charging Infrastructure	$27,166.71	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML12050	City of Baldwin Park	4/25/2013	4/24/2014	10/24/2014	$402,400.00	$385,363.00	EV Charging Infrastructure	$17,037.00	Yes
ML12054	City of Palm Desert	9/30/2013	2/28/2015		$77,385.00	$77,385.00	EV Charging Infrastructure	$0.00	Yes
ML12056	City of Cathedral City	3/26/2013	5/25/2014		$25,000.00	$25,000.00	Regional Street Sweeping Program	$0.00	Yes
ML12066	City of Manhattan Beach	1/7/2014	4/6/2015		$5,900.00	$5,900.00	Electric Vehicle Charging Infrastructure	$0.00	Yes
MS12001	Los Angeles County MTA	7/1/2012	4/30/2013		$300,000.00	$211,170.00	Clean Fuel Transit Service to Dodger Stadiu	$88,830.00	Yes
MS12002	Orange County Transportation Autho	9/7/2012	4/30/2013		$342,340.00	$333,185.13	Express Bus Service to Orange County Fair	$9,154.87	Yes
MS12003	Orange County Transportation Autho	7/20/2012	2/28/2013		$234,669.00	$167,665.12	Implement Metrolink Service to Angel Stadiu	$67,003.88	Yes
MS12005	USA Waste of California, Inc.	10/19/2012	8/18/2013		$75,000.00	$75,000.00	Vehicle Maintenance Facility Modifications	$0.00	Yes
MS12006	Waste Management Collection & Re	10/19/2012	8/18/2013		$75,000.00	$75,000.00	Vehicle Maintenance Facility Modifications	$0.00	Yes
MS12012	Rim of the World Unified School Dist	12/20/2012	5/19/2014		$75,000.00	$75,000.00	Vehicle Maintenance Facility Modifications	$0.00	Yes
MS12025	Silverado Stages, Inc.	11/2/2012	7/1/2018		$150,000.00	$150,000.00	Purchase Six Medium-Heavy Duty Vehicles	$0.00	Yes
MS12059	Orange County Transportation Autho	2/28/2013	12/27/2014		$75,000.00	$75,000.00	Maintenance Facilities Modifications	$0.00	Yes
MS12061	Orange County Transportation Autho	3/14/2014	3/13/2017		$224,000.00	$114,240.00	Transit-Oriented Bicycle Sharing Program	$109,760.00	Yes
MS12062	Fraser Communications	12/7/2012	5/31/2014		$998,669.00	$989,218.49	Develop & Implement "Rideshare Thursday"	$9,450.51	Yes
MS12064	Anaheim Transportation Network	3/26/2013	12/31/2014		$127,296.00	$56,443.92	Implement Anaheim Circulator Service	$70,852.08	Yes
MS12065	Orange County Transportation Autho	7/27/2013	11/30/2013		$43,933.00	$14,832.93	Ducks Express Service to Honda Center	$29,100.07	Yes
MS12068	Southern California Regional Rail Au	3/1/2013	9/30/2013		$57,363.00	$47,587.10	Implement Metrolink Service to Autoclub Sp	$9,775.90	Yes
MS12069	City of Irvine	8/11/2013	2/28/2014		$45,000.00	$26,649.41	Implement Special Transit Service to Solar	$18,350.59	Yes
MS12076	City of Ontario, Housing & Municipal	3/8/2013	4/7/2015		$75,000.00	$75,000.00	Maintenance Facilities Modification	$0.00	Yes
MS12078	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		$75,000.00	$73,107.00	Maintenance Facility Modifications - Vernon	$1,893.00	Yes
MS12081	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		$75,000.00	$75,000.00	Maintenance Facility Modifications - Santa A	$0.00	Yes
MS12085	Bear Valley Unified School District	4/25/2013	6/24/2014		$75,000.00	$75,000.00	Maintenance Facility Modifications	$0.00	Yes
MS12087	Los Angeles County MTA	8/29/2013	11/28/2015		$125,000.00	$125,000.00	Implement Rideshare Incentives Program	$0.00	Yes
MS12088	Orange County Transportation Autho	12/6/2013	3/5/2016		$125,000.00	$18,496.50	Implement Rideshare Incentives Program	$106,503.50	Yes
MS12089	Riverside County Transportation Co	10/18/2013	9/17/2015		$249,136.00	$105,747.48	Implement Rideshare Incentives Program	$143,388.52	No
MS12Hom	Mansfield Gas Equipment Systems				$296,000.00	$0.00	Home Refueling Apparatus Incentive Progra	$296,000.00	No
Total: 34									
Closed/Incomplete Contracts									
MS12079	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		$75,000.00	$0.00	Maintenance Facility Modifications - Boyle H	$75,000.00	No
Total: 1									
Open/Complete Contracts									
ML12015	City of Fullerton	4/25/2013	11/24/2020	11/24/2021	$40,000.00	$40,000.00	HD CNG Vehicle, Expand CNG Station	$0.00	Yes
ML12017	City of Los Angeles, Bureau of Sanit	6/26/2013	5/25/2020	11/25/2021	$950,000.00	$950,000.00	32 H.D. Nat. Gas Vehicles	$0.00	Yes
ML12020	City of Los Angeles, Department of	9/27/2012	3/26/2019	3/26/2020	$450,000.00	$450,000.00	15 H.D. Nat. Gas Vehicles	$0.00	Yes
ML12022	City of La Puente	12/6/2013	6/5/2020		$110,000.00	$110,000.00	2 Medium-Duty and Three Heavy-Duty CNG	$0.00	Yes
ML12039	City of Redlands	2/8/2013	10/7/2019		$90,000.00	$90,000.00	Three Heavy-Duty Nat. Gas Vehicles	$0.00	Yes
ML12046	City of Irvine	8/11/2013	3/10/2021		$30,000.00	$30,000.00	One Heavy-Duty Nat. Gas Vehicle	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML12047	City of Orange	2/1/2013	1/31/2019		$30,000.00	$30,000.00	One Heavy-Duty Nat. Gas Vehicle	$0.00	Yes
ML12055	City of Manhattan Beach	3/1/2013	12/31/2018		$10,000.00	$10,000.00	One Medium-Duty Nat. Gas Vehicle	$0.00	Yes
MS12004	USA Waste of California, Inc.	10/24/2013	11/23/2019		$175,000.00	$175,000.00	Construct New Limited-Access CNG Station	$0.00	Yes
MS12008	Bonita Unified School District	7/12/2013	12/11/2019	4/11/2021	$175,000.00	$175,000.00	Construct New Limited-Access CNG Station	$0.00	Yes
MS12009	Sysco Food Services of Los Angeles	1/7/2014	4/6/2020		$150,000.00	$150,000.00	Construct New Public-Access LNG Station	$0.00	Yes
MS12010	Murrieta Valley Unified School Distric	4/5/2013	9/4/2019		$242,786.00	$242,786.00	Construct New Limited-Access CNG Station	$0.00	Yes
MS12011	Southern California Gas Company	6/14/2013	6/13/2019	5/28/2021	$150,000.00	$150,000.00	Construct New Public-Access CNG Station -	$0.00	Yes
MS12024	Southern California Gas Company	6/13/2013	12/12/2019	11/12/2020	$150,000.00	$150,000.00	Construct New Public-Access CNG Station -	$0.00	Yes
MS12026	U-Haul Company of California	3/14/2013	3/13/2019		$500,000.00	$353,048.26	Purchase 23 Medium-Heavy Duty Vehicles	$146,951.74	Yes
MS12028	Dy-Dee Service of Pasadena, Inc.	12/22/2012	1/21/2019		$45,000.00	$40,000.00	Purchase 2 Medium-Duty and 1 Medium-He	$5,000.00	Yes
MS12029	Community Action Partnership of Or	11/2/2012	11/1/2018		$25,000.00	$14,850.00	Purchase 1 Medium-Heavy Duty Vehicle	$10,150.00	Yes
MS12031	Final Assembly, Inc.	11/2/2012	11/1/2018		$50,000.00	$32,446.00	Purchase 2 Medium-Heavy Duty Vehicles	$17,554.00	Yes
MS12032	Fox Transportation	12/14/2012	12/13/2018		$500,000.00	$500,000.00	Purchase 20 Medium-Heavy Duty Vehicles	$0.00	Yes
MS12033	Mike Diamond/Phace Management	12/22/2012	12/21/2018	6/21/2021	$148,900.00	$148,900.00	Purchase 20 Medium-Heavy Duty Vehicles	$0.00	No
MS12034	Ware Disposal Company, Inc.	11/2/2012	11/1/2018	5/1/2022	$133,070.00	$133,070.00	Purchase 8 Medium-Heavy Duty Vehicles	$0.00	No
MS12035	Disneyland Resort	1/4/2013	7/3/2019		$25,000.00	$18,900.00	Purchase 1 Medium-Heavy Duty Vehicle	$6,100.00	Yes
MS12036	Jim & Doug Carter's Automotive/VS	1/4/2013	11/3/2018		$50,000.00	$50,000.00	Purchase 2 Medium-Heavy Duty Vehicles	$0.00	Yes
MS12058	Krisda Inc	4/24/2013	1/23/2019		$25,000.00	$25,000.00	Repower One Heavy-Duty Off-Road Vehicle	$0.00	Yes
MS12063	Custom Alloy Light Metals, Inc.	8/16/2013	2/15/2020		$100,000.00	$100,000.00	Install New Limited Access CNG Station	$0.00	Yes
MS12071	Transit Systems Unlimited, Inc.	5/17/2013	12/16/2018		$21,250.00	$21,250.00	Expansion of Existing CNG Station	$0.00	Yes
MS12072	99 Cents Only Stores	4/5/2013	9/4/2019		$100,000.00	$100,000.00	Construct New CNG Station	$0.00	Yes
MS12073	FirstCNG, LLC	7/27/2013	12/26/2019		$150,000.00	$150,000.00	Construct New CNG Station	$0.00	Yes
MS12074	Arcadia Unified School District	7/5/2013	9/4/2019		$175,000.00	$175,000.00	Expansion of Existing CNG Infrastructure	$0.00	Yes
MS12075	CR&R Incorporated	7/27/2013	1/26/2021	1/26/2022	$100,000.00	$100,000.00	Expansion of Existing CNG Infrastructure	$0.00	No
MS12080	City of Pasadena	11/8/2013	8/7/2020	2/7/2022	$225,000.00	$225,000.00	Expansion of Existing CNG Infrastructure	$0.00	Yes
MS12082	City of Los Angeles, Bureau of Sanit	11/20/2013	2/19/2021	2/19/2023	$175,000.00	$175,000.00	Install New CNG Infrastructure	$0.00	Yes
MS12083	Brea Olinda Unified School District	7/30/2015	2/29/2024		$59,454.00	$59,454.00	Install New CNG Infrastructure	$0.00	Yes
MS12086	SuperShuttle International, Inc.	3/26/2013	3/25/2019		$225,000.00	$225,000.00	Purchase 23 Medium-Heavy Duty Vehicles	$0.00	Yes

Total: 34

FY 2012-2014 Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Open Contracts									
ML14012	City of Santa Ana	2/13/2015	10/12/2021		$244,000.00	$0.00	EV Charging and 7 H.D. LPG Vehicles	$244,000.00	No
ML14018	City of Los Angeles, Department of	3/6/2015	9/5/2021	12/5/2022	$810,000.00	$720,000.00	Purchase 27 H.D. Nat. Gas Vehicles	$90,000.00	No
ML14019	City of Corona Public Works	12/5/2014	6/4/2020	3/6/2023	$178,263.00	$15,468.52	EV Charging, Bicycle Racks, Bicycle Locker	$162,794.48	No
ML14021	Riverside County Regional Park and	7/24/2014	12/23/2016	9/23/2018	$250,000.00	$0.00	Bicycle Trail Improvements	$250,000.00	No
ML14023	County of Los Angeles Department o	10/2/2015	9/1/2017	9/1/2019	$230,000.00	$0.00	Maintenance Fac. Modifications-Westcheste	$230,000.00	No
ML14024	County of Los Angeles Department o	10/2/2015	9/1/2017	9/1/2019	$230,000.00	$0.00	Maintenance Fac. Modifications-Baldwin Par	$230,000.00	No
ML14025	County of Los Angeles Dept of Publi	10/2/2015	7/1/2018	7/1/2024	$300,000.00	$0.00	Construct New CNG Station in Malibu	$300,000.00	No
ML14026	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	5/1/2024	$300,000.00	$0.00	Construct New CNG Station in Castaic	$300,000.00	No
ML14027	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	6/1/2024	$500,000.00	$0.00	Construct New CNG Station in Canyon Coun	$500,000.00	No
ML14030	County of Los Angeles Internal Servi	1/9/2015	3/8/2018	6/8/2019	$425,000.00	$25,000.00	Bicycle Racks, Outreach & Education	$400,000.00	No
ML14049	City of Moreno Valley	7/11/2014	3/10/2021		$105,000.00	$48,250.00	One HD Nat Gas Vehicle, EV Charging, Bicy	$56,750.00	No
ML14055	City of Highland	10/10/2014	3/9/2018	3/9/2019	$500,000.00	$0.00	Bicycle Lanes and Outreach	$500,000.00	No
ML14060	County of Los Angeles Internal Servi	10/6/2017	1/5/2019		$104,400.00	$0.00	Electric Vehicle Charging Infrastructure	$104,400.00	No
ML14062	City of San Fernando	3/27/2015	5/26/2021		$387,091.00	$0.00	Expand Existing CNG Fueling Station	$387,091.00	No
ML14066	City of South Pasadena	9/12/2014	7/11/2016	2/11/2018	$142,096.00	$0.00	Bicycle Trail Improvements	$142,096.00	No
ML14067	City of Duarte	12/4/2015	1/3/2023	6/3/2024	$60,000.00	$0.00	Purchase Two Electric Buses	$60,000.00	No
ML14068	City of South Pasadena	9/12/2014	10/11/2015	1/11/2020	$10,183.00	$0.00	Electric Vehicle Charging Infrastructure	$10,183.00	No
ML14069	City of Beaumont	3/3/2017	3/2/2025		$200,000.00	$0.00	Construct New CNG Infrastructure	$200,000.00	No
ML14070	City of Rancho Cucamonga	9/3/2016	12/2/2018		$365,245.00	$0.00	Bicycle Trail Improvements	$365,245.00	No
ML14072	City of Cathedral City	8/13/2014	1/12/2021		$136,000.00	$0.00	Medium & H.D. Vehicles, EV Charging, Bike	$136,000.00	No
ML14093	County of Los Angeles Dept of Publi	8/14/2015	1/13/2019		$150,000.00	$0.00	San Gabriel BikeTrail Underpass Improveme	$150,000.00	No
MS14037	Penske Truck Leasing Co., L.P.	4/7/2017	6/6/2020		$75,000.00	$0.00	Vehicle Maint. Fac. Modifications - Carson	$75,000.00	No
MS14057	Los Angeles County MTA	11/7/2014	10/6/2019		$1,250,000.00	$0.00	Implement Various Signal Synchronization P	$1,250,000.00	No
MS14059	Riverside County Transportation Co	9/5/2014	3/4/2018	4/4/2020	$1,250,000.00	$0.00	Implement Various Signal Synchronization P	$1,250,000.00	No
MS14072	San Bernardino County Transportatio	3/27/2015	3/26/2018	3/26/2020	$1,250,000.00	$268,800.00	Implement Various Signal Synchronization P	$981,200.00	No
MS14075	Fullerton Joint Union High School Di	7/22/2016	11/21/2023		$300,000.00	$300,000.00	Expansion of Existing CNG Infrastructure/Ma	$0.00	No
MS14076	Rialto Unified School District	6/17/2015	2/16/2022		$225,000.00	$225,000.00	New Public Access CNG Station	$0.00	No
MS14079	Waste Resources, Inc.	9/14/2016	8/13/2022	8/13/2023	$100,000.00	$0.00	New Limited Access CNG Station	$100,000.00	No
MS14082	Grand Central Recycling & Transfer	12/4/2015	3/3/2023	3/3/2024	$150,000.00	$0.00	Construct New Public Access CNG Station	$150,000.00	No
MS14083	Hacienda La Puente Unified School	7/10/2015	3/9/2022		$175,000.00	$0.00	New Limited Access CNG Station	$175,000.00	No
MS14092	West Covina Unified School District	9/3/2016	12/2/2022		$124,000.00	$0.00	Expansion of Existing CNG Infrastructure	$124,000.00	No
Total: 31									
Declined/Cancelled Contracts									
ML14063	City of Hawthorne				$32,000.00	$0.00	Expansion of Existng CNG Infrastructure	$32,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14035	Penske Truck Leasing Co., L.P.				$75,000.00	$0.00	Vehicle Maint. Fac. Modifications - Sun Valle	$75,000.00	No
MS14036	Penske Truck Leasing Co., L.P.				$75,000.00	$0.00	Vehicle Maint. Fac. Modifications - La Mirad	$75,000.00	No
MS14038	Penske Truck Leasing Co., L.P.				$75,000.00	$0.00	Vehicle Maint. Fac. Modifications - Fontana	$75,000.00	No
MS14043	City of Anaheim				$175,000.00	$0.00	Expansion of Existing CNG Station	$175,000.00	No
MS14078	American Honda Motor Co., Inc.	9/4/2015	8/3/2022		$150,000.00	$0.00	New Public Access CNG Station	$150,000.00	No
MS14085	Prologis, L.P.				$100,000.00	$0.00	New Limited Access CNG Station	$100,000.00	No
MS14086	San Gabriel Valley Towing I				$150,000.00	$0.00	New Public Access CNG Station	$150,000.00	No
MS14091	Serv-Wel Disposal				$100,000.00	$0.00	New Limited-Access CNG Infrastructure	$100,000.00	No
Total: 9									
Closed Contracts									
ML14010	City of Cathedral City	8/13/2014	10/12/2015		$25,000.00	$25,000.00	Street Sweeping Operations	$0.00	Yes
ML14011	City of Palm Springs	6/13/2014	1/12/2016		$79,000.00	$78,627.00	Bicycle Racks, Bicycle Outreach & Educatio	$373.00	Yes
ML14015	Coachella Valley Association of Gov	6/6/2014	9/5/2015		$250,000.00	$250,000.00	Street Sweeping Operations	$0.00	Yes
ML14020	County of Los Angeles Dept of Publi	8/13/2014	1/12/2018		$150,000.00	$0.00	San Gabriel BikeTrail Underpass Improveme	$150,000.00	No
ML14029	City of Irvine	7/11/2014	6/10/2017		$90,500.00	$71,056.78	Bicycle Trail Improvements	$19,443.22	Yes
ML14051	City of Brea	9/5/2014	1/4/2017	7/4/2018	$450,000.00	$450,000.00	Installation of Bicycle Trail	$0.00	Yes
ML14054	City of Torrance	11/14/2014	4/13/2017	7/13/2017	$350,000.00	$319,908.80	Upgrade Maintenance Facility	$30,091.20	Yes
ML14056	City of Redlands	9/5/2014	5/4/2016	5/4/2018	$125,000.00	$125,000.00	Bicycle Lanes	$0.00	Yes
ML14065	City of Orange	9/5/2014	8/4/2015		$10,000.00	$10,000.00	Electric Vehicle Charging Infrastructure	$0.00	Yes
ML14094	City of Yucaipa	6/9/2017	6/8/2018		$84,795.00	$84,795.00	Installation of Bicycle Lanes	$0.00	Yes
MS14001	Los Angeles County MTA	3/6/2015	4/30/2015		$1,216,637.00	$1,199,512.68	Clean Fuel Transit Service to Dodger Stadiu	$17,124.32	Yes
MS14002	Orange County Transportation Autho	9/6/2013	4/30/2014		$576,833.00	$576,833.00	Clean Fuel Transit Service to Orange Count	$0.00	Yes
MS14003	Orange County Transportation Autho	8/1/2013	4/30/2014	10/30/2014	$194,235.00	$184,523.00	Implement Metrolink Service to Angel Stadiu	$9,712.00	Yes
MS14004	Orange County Transportation Autho	9/24/2013	4/30/2014		$36,800.00	$35,485.23	Implement Express Bus Service to Solar De	$1,314.77	Yes
MS14005	Transit Systems Unlimited, Inc.	4/11/2014	2/28/2016		$515,200.00	$511,520.00	Provide Expanded Shuttle Service to Hollyw	$3,680.00	Yes
MS14007	Orange County Transportation Autho	6/6/2014	4/30/2015		$208,520.00	$189,622.94	Implement Special Metrolink Service to Ang	$18,897.06	Yes
MS14008	Orange County Transportation Autho	8/13/2014	5/31/2015		$601,187.00	$601,187.00	Implement Clean Fuel Bus Service to Orang	$0.00	Yes
MS14009	A-Z Bus Sales, Inc.	1/17/2014	12/31/2014	3/31/2015	$388,000.00	$388,000.00	Alternative Fuel School Bus Incentive Progra	$0.00	Yes
MS14039	Waste Management Collection and	7/10/2015	4/9/2016		$75,000.00	$75,000.00	Vehicle Maint. Fac. Modifications - Irvine	$0.00	Yes
MS14040	Waste Management Collection and	7/10/2015	4/9/2016		$75,000.00	$75,000.00	Vehicle Maint. Fac. Modifications - Santa An	$0.00	Yes
MS14047	Southern California Regional Rail Au	3/7/2014	9/30/2014		$49,203.00	$32,067.04	Special Metrolink Service to Autoclub Speed	$17,135.96	Yes
MS14048	BusWest	3/14/2014	12/31/2014	5/31/2015	$940,850.00	$847,850.00	Alternative Fuel School Bus Incentive Progra	$93,000.00	Yes
MS14058	Orange County Transportation Autho	11/7/2014	4/6/2016	4/6/2017	$1,250,000.00	$1,250,000.00	Implement Various Signal Synchronization P	$0.00	Yes
MS14073	Anaheim Transportation Network	1/9/2015	4/30/2017		$221,312.00	$221,312.00	Anaheim Resort Circulator Service	$0.00	Yes
MS14087	Orange County Transportation Autho	8/14/2015	4/30/2016		$239,645.00	$195,377.88	Implement Special Metrolink Service to Ang	$44,267.12	Yes
MS14088	Southern California Regional Rail Au	5/7/2015	9/30/2015		$79,660.00	$66,351.44	Special Metrolink Service to Autoclub Speed	$13,308.56	Yes
MS14089	Top Shelf Consulting, LLC	1/18/2017	8/4/2016	3/31/2017	$200,000.00	$200,000.00	Enhanced Fleet Modernization Program	$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Total: 27									
Closed/Incomplete Contracts									
ML14050	City of Yucaipa	7/11/2014	9/10/2015	7/1/2016	$84,795.00	$0.00	Installation of Bicycle Lanes	$84,795.00	No
Total: 1									
Open/Complete Contracts									
ML14013	City of Los Angeles, Bureau of Sanit	10/7/2016	2/6/2025		$400,000.00	$400,000.00	Purchase 14 H.D. Nat. Gas Vehicles	$0.00	Yes
ML14014	City of Torrance	9/5/2014	12/4/2019		$56,000.00	$56,000.00	EV Charging Infrastructure	$0.00	Yes
ML14016	City of Anaheim	4/3/2015	9/2/2021		$380,000.00	$380,000.00	Purchase 2 H.D. Vehicles, Expansion of Exi	$0.00	Yes
ML14022	County of Los Angeles Department o	10/2/2015	5/1/2022		$270,000.00	$270,000.00	Purchase 9 H.D. Nat. Gas Vehicles	$0.00	Yes
ML14028	City of Fullerton	9/5/2014	1/4/2022		$126,950.00	$126,950.00	Expansion of Exisiting CNG Infrastructure	$0.00	Yes
ML14031	Riverside County Waste Manageme	6/13/2014	12/12/2020		$90,000.00	$90,000.00	Purchase 3 H.D. CNG Vehicles	$0.00	Yes
ML14032	City of Rancho Cucamonga	1/9/2015	1/8/2022		$113,990.00	$104,350.63	Expansion of Existing CNG Infras., Bicycle L	$9,639.37	Yes
ML14033	City of Irvine	7/11/2014	2/10/2021	2/10/2022	$60,000.00	$60,000.00	Purchase 2 H.D. CNG Vehicles	$0.00	Yes
ML14034	City of Lake Elsinore	9/5/2014	5/4/2021		$56,700.00	$56,700.00	EV Charging Stations	$0.00	Yes
ML14061	City of La Habra	3/11/2016	3/10/2022		$41,600.00	$41,270.49	Purchase Two Heavy-Duty Nat. Gas Vehicle	$329.51	Yes
ML14064	City of Claremont	7/11/2014	7/10/2020	1/10/2021	$60,000.00	$60,000.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	$0.00	Yes
ML14071	City of Manhattan Beach	1/9/2015	11/8/2018		$22,485.00	$22,485.00	Electric Vehicle Charging Infrastructure	$0.00	Yes
MS14041	USA Waste of California, Inc.	9/4/2015	10/3/2021		$175,000.00	$175,000.00	Limited-Access CNG Station, Vehicle Maint.	$0.00	Yes
MS14042	Grand Central Recycling & Transfer	6/6/2014	9/5/2021		$150,000.00	$150,000.00	Expansion of Existing CNG Station	$0.00	Yes
MS14044	TIMCO CNG Fund I, LLC	5/2/2014	11/1/2020		$150,000.00	$150,000.00	New Public-Access CNG Station in Santa A	$0.00	Yes
MS14045	TIMCO CNG Fund I, LLC	6/6/2014	12/5/2020		$150,000.00	$150,000.00	New Public-Access CNG Station in Inglewoo	$0.00	Yes
MS14046	Ontario CNG Station Inc.	5/15/2014	5/14/2020	11/14/2021	$150,000.00	$150,000.00	Expansion of Existing CNG Infrastructure	$0.00	Yes
MS14052	Arcadia Unified School District	6/13/2014	10/12/2020		$78,000.00	$78,000.00	Expansion of an Existing CNG Fueling Statio	$0.00	Yes
MS14053	Upland Unified School District	1/9/2015	7/8/2021		$175,000.00	$175,000.00	Expansion of Existing CNG Infrastructure	$0.00	No
MS14074	Midway City Sanitary District	1/9/2015	3/8/2021		$250,000.00	$250,000.00	Limited-Access CNG Station & Facility Modif	$0.00	Yes
MS14077	County Sanitation Districts of L.A. Co	3/6/2015	5/5/2021		$175,000.00	$175,000.00	New Limited Access CNG Station	$0.00	Yes
MS14080	CR&R Incorporated	6/1/2015	8/31/2021	8/31/2022	$200,000.00	$200,000.00	Expansion of Existing CNG Infrastructure/Ma	$0.00	No
MS14081	CR&R Incorporated	6/1/2015	5/30/2021		$175,000.00	$100,000.00	Expansion of Existing CNG Infrastructure/Ma	$75,000.00	No
MS14084	US Air Conditioning Distributors	5/7/2015	9/6/2021		$100,000.00	$100,000.00	Expansion of Existing CNG Infrastructure	$0.00	Yes
MS14090	City of Monterey Park	5/7/2015	5/6/2021		$225,000.00	$225,000.00	Expansion of Existing CNG Infrastructure	$0.00	Yes
Total: 25									

FY 2014-2016 Contracts

Open Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16005	City of Palm Springs	3/4/2016	10/3/2017		$40,000.00	$0.00	Install Bicycle Racks, and Implement Bicycl	$40,000.00	No
ML16006	City of Cathedral City	4/27/2016	4/26/2022		$55,000.00	$0.00	Purchase 1 H.D. Nat. Gas Vehicle, Bicycle	$55,000.00	No
ML16007	City of Culver City Transportation De	10/6/2015	4/5/2023		$246,000.00	$210,000.00	Purchase 7 H.D. Nat. Gas Vehicles, EV Cha	$36,000.00	No
ML16008	City of Pomona	9/20/2016	11/19/2022	11/19/2023	$60,000.00	$0.00	Purchase 3 Medium-Duty and 1 Heavy-Duty	$60,000.00	No
ML16009	City of Fountain Valley	10/6/2015	2/5/2018	2/5/2019	$46,100.00	$0.00	Install EV Charging Infrastructure	$46,100.00	No
ML16010	City of Fullerton	10/7/2016	4/6/2023		$370,500.00	$0.00	Expand Existing CNG Station, EV Charging I	$370,500.00	No
ML16013	City of Monterey Park	12/4/2015	7/3/2022	7/3/2023	$90,000.00	$0.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	$90,000.00	No
ML16016	City of Los Angeles, Department of	2/5/2016	12/4/2022		$630,000.00	$540,000.00	Purchase 21 Heavy-Duty Nat. Gas Vehicles	$90,000.00	No
ML16017	City of Long Beach	2/5/2016	8/4/2023		$1,445,400.00	$951,400.00	Purchase 50 Medium-Duty, 19 H.D. Nat. Ga	$494,000.00	No
ML16018	City of Hermosa Beach	10/7/2016	1/6/2023		$29,520.00	$23,768.44	Purchase 2 M.D. Nat. Gas Vehicles, Bicycle	$5,751.56	No
ML16019	City of Los Angeles, Dept of General	1/25/2017	3/24/2020		$102,955.00	$0.00	Install EV Charging Infrastructure	$102,955.00	No
ML16020	City of Pomona	4/1/2016	2/1/2018	8/1/2018	$440,000.00	$0.00	Install Road Surface Bicycle Detection Syste	$440,000.00	No
ML16021	City of Santa Clarita	10/7/2016	6/6/2024		$49,400.00	$0.00	Install EV Charging Infrastructure	$49,400.00	No
ML16022	Los Angeles Department of Water an	5/5/2017	3/4/2024		$360,000.00	$0.00	Purchase 13 H.D. Nat. Gas Vehicles	$360,000.00	No
ML16025	City of South Pasadena	6/22/2016	4/21/2023	4/21/2024	$180,535.00	$0.00	Purchase H.D. Nat. Gas Vehicle, Expand Ex	$180,535.00	No
ML16032	City of Azusa	9/9/2016	4/8/2019	4/8/2020	$474,925.00	$0.00	Implement a "Complete Streets" Pedestrian	$474,925.00	No
ML16034	City of Riverside	3/11/2016	10/10/2018	10/10/2019	$500,000.00	$0.00	Implement a "Complete Streets" Pedestrian	$500,000.00	No
ML16036	City of Brea	3/4/2016	12/3/2018		$500,000.00	$0.00	Install a Class 1 Bikeway	$500,000.00	No
ML16038	City of Palm Springs	4/1/2016	7/31/2022		$230,000.00	$0.00	Install Bicycle Lanes & Purchase 4 Heavy-D	$230,000.00	No
ML16039	City of Torrance Transit Department	1/6/2017	9/5/2022		$32,000.00	$0.00	Install EV Charging Infrastructure	$32,000.00	No
ML16040	City of Eastvale	1/6/2017	7/5/2022		$110,000.00	$0.00	Install EV Charging Infrastructure	$110,000.00	No
ML16041	City of Moreno Valley	9/3/2016	1/2/2021	1/2/2022	$20,000.00	$0.00	Install EV Charging Infrastructure	$20,000.00	No
ML16042	City of San Dimas	4/1/2016	12/31/2019	12/31/2020	$55,000.00	$0.00	Install EV Charging Infrastructure	$55,000.00	No
ML16045	City of Anaheim	6/22/2016	8/21/2019		$275,000.00	$0.00	Maintenance Facility Modifications	$275,000.00	No
ML16046	City of El Monte	4/1/2016	5/31/2021	5/31/2023	$20,160.00	$0.00	Install EV Charging Infrastructure	$20,160.00	No
ML16047	City of Fontana	1/6/2017	8/5/2019		$500,000.00	$0.00	Enhance an Existing Class 1 Bikeway	$500,000.00	No
ML16048	City of Placentia	3/26/2016	5/25/2021	6/25/2022	$90,000.00	$18,655.00	Install a Bicycle Locker and EV Charging Infr	$71,345.00	No
ML16052	City of Rancho Cucamonga	9/3/2016	11/2/2019		$315,576.00	$0.00	Install Two Class 1 Bikeways	$315,576.00	No
ML16053	City of Claremont	3/11/2016	7/10/2018	5/10/2020	$498,750.00	$0.00	Implement a "Complete Streets" Pedestrian	$498,750.00	No
ML16054	City of Yucaipa	3/26/2016	7/26/2018	7/26/2019	$120,000.00	$0.00	Implement a "Complete Streets" Pedestrian	$120,000.00	No
ML16056	City of Ontario	3/23/2016	9/22/2020	9/22/2021	$150,000.00	$0.00	Expansion of an Existing CNG Station	$150,000.00	No
ML16057	City of Yucaipa	4/27/2016	1/26/2019		$380,000.00	$0.00	Implement a "Complete Streets" Pedestrian	$380,000.00	No
ML16058	Los Angeles County Department of P	10/7/2016	4/6/2024		$491,898.00	$0.00	Purchase 15 H.D. Nat. Gas Vehicles and Ins	$491,898.00	No
ML16060	City of Cudahy	2/5/2016	10/4/2017		$73,910.00	$0.00	Implement an "Open Streets" Event	$73,910.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16064	County of Orange, OC Parks	2/21/2017	10/20/2018		$204,073.00	$157,632.73	Implement "Open Streets" Events with Vario	$46,440.27	No
ML16066	City of Long Beach Public Works	1/13/2017	9/12/2018		$75,050.00	$0.00	Implement an "Open Streets" Event	$75,050.00	No
ML16069	City of West Covina	3/10/2017	6/9/2021		$54,199.00	$0.00	Installation of EV Charging Infrastructure	$54,199.00	No
ML16070	City of Beverly Hills	2/21/2017	6/20/2023		$90,000.00	$90,000.00	Purchase 3 H.D. Nat. Gas Vehicles	$0.00	No
ML16071	City of Highland	5/5/2017	1/4/2020		$264,500.00	$0.00	Implement a "Complete Streets" Pedestrian	$264,500.00	No
ML16075	City of San Fernando	10/27/2016	2/26/2019		$354,000.00	$0.00	Install a Class 1 Bikeway	$354,000.00	No
ML16076	City of San Fernando	2/21/2017	8/20/2021		$100,000.00	$0.00	Install EV Charging Infrastructure	$100,000.00	No
ML16077	City of Rialto	5/3/2018	10/2/2021		$463,216.00	$0.00	Pedestrian Access Improvements, Bicycle L	$463,216.00	No
ML16083	City of El Monte	4/1/2016	4/30/2021	4/30/2023	$57,210.00	$0.00	Install EV Charging Infrastructure	$57,210.00	No
ML16122	City of Wildomar	6/8/2018	6/7/2019		$500,000.00	$0.00	Install Bicycle Lanes	$500,000.00	No
MS16001	Los Angeles County MTA	4/1/2016	4/30/2017		$1,350,000.00	$1,332,039.84	Clean Fuel Transit Service to Dodger Stadiu	$17,960.16	No
MS16029	Orange County Transportation Autho	1/12/2018	6/11/2020		$851,883.00	$0.00	Transportation Control Measure Partnership	$851,883.00	No
MS16030	The Better World Group	12/19/2015	12/31/2017	12/31/2019	$256,619.00	$119,288.69	Programmic Outreach Services to the MSR	$137,330.31	No
MS16082	Riverside County Transportation Co	9/3/2016	8/2/2018		$590,759.00	$337,519.71	Extended Freeway Service Patrols	$253,239.29	No
MS16086	San Bernardino County Transportatio	9/3/2016	10/2/2021		$800,625.00	$186,030.87	Freeway Service Patrols	$614,594.13	No
MS16087	Burrtec Waste & Recycling Services,	7/8/2016	3/7/2023		$100,000.00	$0.00	Construct New Limited-Access CNG Station	$100,000.00	No
MS16090	Los Angeles County MTA	10/27/2016	4/26/2020		$2,500,000.00	$0.00	Expansion of the Willowbrook/Rosa Parks Tr	$2,500,000.00	No
MS16091	San Bernardino County Transportatio	10/7/2016	11/6/2018		$1,000,000.00	$0.00	Traffic Signal Synchronization Projects	$1,000,000.00	No
MS16092	San Bernardino County Transportatio	2/3/2017	1/2/2019		$250,000.00	$242,016.53	Implement a Series of "Open Streets" Event	$7,983.47	No
MS16093	Orange County Transportation Autho	9/3/2016	3/2/2018	9/2/2018	$1,553,657.00	$0.00	Implement a Mobile Ticketing System	$1,553,657.00	No
MS16094	Riverside County Transportation Co	1/25/2017	1/24/2022		$1,909,241.00	$0.00	MetroLink First Mile/Last Mile Mobility Strate	$1,909,241.00	No
MS16096	San Bernardino County Transportatio	10/27/2016	12/26/2019		$450,000.00	$0.00	EV Charging Infrastructure	$450,000.00	No
MS16097	Walnut Valley Unified School District	10/7/2016	11/6/2022		$250,000.00	$175,000.00	Expand CNG Station & Modify Maintenance	$75,000.00	No
MS16099	Foothill Transit	3/3/2017	3/31/2017		$50,000.00	$50,000.00	Provide Special Bus Service to the Los Ange	$0.00	Yes
MS16102	Nasa Services, Inc.	2/21/2017	4/20/2023		$100,000.00	$90,000.00	Construct a Limited-Access CNG Station	$10,000.00	No
MS16103	Arrow Services, Inc.	2/3/2017	4/2/2023		$100,000.00	$100,000.00	Construct a Limited-Access CNG Station	$0.00	Yes
MS16105	Huntington Beach Union High School	3/3/2017	7/2/2024		$175,000.00	$0.00	Expansion of Existing CNG Infrastructure	$175,000.00	No
MS16110	City of Riverside	10/6/2017	2/5/2025		$300,000.00	$0.00	Expansion of Exisiting CNG Station and Mai	$300,000.00	No
MS16112	Orange County Transportation Autho	4/14/2017	3/13/2024		$1,470,000.00	$0.00	Repower Up to 98 Transit Buses	$1,470,000.00	No
MS16113	Los Angeles County MTA	5/12/2017	4/11/2024		$1,875,000.00	$0.00	Repower Up to 125 Transit Buses	$1,875,000.00	No
MS16115	City of Santa Monica	4/14/2017	7/13/2025		$870,000.00	$0.00	Repower 58 Transit Buses	$870,000.00	No
MS16117	Omnitrans	4/21/2017	6/20/2023		$175,000.00	$166,250.00	Expansion of Existing CNG Infrastructure	$8,750.00	No
MS16118	Omnitrans	4/21/2017	6/20/2023		$175,000.00	$166,250.00	Expansion of Existing CNG Infrastructure	$8,750.00	No
MS16119	Omnitrans	4/21/2017	8/20/2022		$150,000.00	$0.00	New Public Access CNG Station	$150,000.00	No
MS16120	Omnitrans	4/7/2017	5/6/2025		$945,000.00	$0.00	Repower 63 Existing Buses	$945,000.00	No
MS16121	Long Beach Transit	11/3/2017	4/2/2024		$600,000.00	$0.00	Purchase 40 New Transit Buses with Near-Z	$600,000.00	No

Total: 70

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Pending Execution Contracts									
MS16106	City of Lawndale				$175,000.00	$0.00	Expansion of Existing CNG Infrastructure	$175,000.00	No
MS16111	VNG 925 Lakeview Avenue, LLC				$150,000.00	$0.00	Construct Public Access CNG Station in Pla	$150,000.00	No
Total: 2									
Declined/Cancelled Contracts									
ML16014	City of Dana Point				$153,818.00	$0.00	Extend an Existing Class 1 Bikeway	$153,818.00	No
ML16065	City of Temple City				$500,000.00	$0.00	Implement a "Complete Streets" Pedestrian	$500,000.00	No
ML16067	City of South El Monte				$73,329.00	$0.00	Implement an "Open Streets" Event	$73,329.00	No
ML16074	City of La Verne	7/22/2016	1/21/2023		$365,000.00	$0.00	Install CNG Fueling Station	$365,000.00	No
MS16043	LBA Realty Company LLC				$100,000.00	$0.00	Install Limited-Access CNG Station	$100,000.00	No
MS16080	Riverside County Transportation Co				$1,200,000.00	$0.00	Passenger Rail Service for Coachella and St	$1,200,000.00	No
MS16098	Long Beach Transit				$198,957.00	$0.00	Provide Special Bus Service to Stub Hub Ce	$198,957.00	No
MS16104	City of Perris				$175,000.00	$0.00	Expansion of Existing CNG Infrastructure	$175,000.00	No
MS16107	Athens Services				$100,000.00	$0.00	Construct a Limited-Access CNG Station	$100,000.00	No
MS16108	VNG 5703 Gage Avenue, LLC				$150,000.00	$0.00	Construct Public-Access CNG Station in Bell	$150,000.00	No
MS16109	Sanitation Districts of Los Angeles C				$275,000.00	$0.00	Expansion of an Existing L/CNG Station	$275,000.00	No
Total: 11									
Closed Contracts									
ML16015	City of Yorba Linda	3/4/2016	11/3/2017		$85,000.00	$85,000.00	Install Bicycle Lanes	$0.00	No
ML16026	City of Downey	5/6/2016	9/5/2017		$40,000.00	$40,000.00	Install EV Charging Infrastructure	$0.00	No
ML16028	City of Azusa	9/9/2016	4/8/2018		$25,000.00	$25,000.00	Enhance Existing Class 1 Bikeway	$0.00	Yes
ML16031	City of Cathedral City	12/19/2015	2/18/2017		$25,000.00	$25,000.00	Street Sweeping in Coachella Valley	$0.00	Yes
ML16033	Coachella Valley Association of Gov	4/27/2016	4/26/2018		$250,000.00	$250,000.00	Street Sweeping Operations in Coachella Va	$0.00	Yes
ML16035	City of Wildomar	4/1/2016	11/1/2017		$500,000.00	$0.00	Install Bicycle Lanes	$500,000.00	No
ML16049	City of Buena Park	4/1/2016	11/30/2018		$429,262.00	$429,262.00	Installation of a Class 1 Bikeway	$0.00	Yes
ML16051	City of South Pasadena	2/12/2016	1/11/2017	12/11/2017	$320,000.00	$258,691.25	Implement "Open Streets" Event with Variou	$61,308.75	Yes
ML16068	Riverside County Dept of Public Heal	12/2/2016	8/1/2018		$171,648.00	$171,648.00	Implement "Open Streets" Events with Vario	$0.00	Yes
ML16073	City of Long Beach Public Works	1/13/2017	7/12/2017		$50,000.00	$50,000.00	Implement an "Open Streets" Event	$0.00	Yes
ML16078	City of Moreno Valley	5/6/2016	11/5/2017	5/5/2018	$32,800.00	$31,604.72	Install Bicycle Infrastructure & Implement Bi	$1,195.28	Yes
MS16002	Orange County Transportation Autho	10/6/2015	5/31/2016		$722,266.00	$703,860.99	Clean Fuel Transit Service to Orange Count	$18,405.01	Yes
MS16003	Special Olympics World Games Los	10/9/2015	12/30/2015		$380,304.00	$380,304.00	Low-Emission Transportation Service for Sp	$0.00	Yes
MS16004	Mineral LLC	9/4/2015	7/3/2017	1/3/2018	$27,690.00	$9,300.00	Design, Develop, Host and Maintain MSRC	$18,390.00	Yes
MS16084	Transit Systems Unlimited, Inc.	5/6/2016	2/28/2018		$565,600.00	$396,930.00	Implement Special Shuttle Service from Uni	$168,670.00	No
MS16085	Southern California Regional Rail Au	3/11/2016	9/30/2016		$78,033.00	$64,285.44	Special MetroLink Service to Autoclub Spee	$13,747.56	No
MS16089	Orange County Transportation Autho	7/8/2016	4/30/2017		$128,500.00	$128,500.00	Implement Special Bus Service to Angel Sta	$0.00	Yes
MS16095	Orange County Transportation Autho	7/22/2016	5/31/2017		$694,645.00	$672,864.35	Implement Special Bus Service to Orange C	$21,780.65	Yes
MS16100	Southern California Regional Rail Au	5/5/2017	9/30/2017		$80,455.00	$66,169.43	Provide Metrolink Service to Autoclub Speed	$14,285.57	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Total: 19									
Open/Complete Contracts									
ML16011	City of Claremont	10/6/2015	6/5/2022		$90,000.00	$90,000.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	$0.00	Yes
ML16012	City of Carson	1/15/2016	10/14/2022		$60,000.00	$60,000.00	Purchase 2 Heavy-Duty Nat. Gas Vehicles	$0.00	Yes
ML16023	City of Banning	12/11/2015	12/10/2021		$30,000.00	$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	$0.00	Yes
ML16024	City of Azusa	4/27/2016	2/26/2022		$30,000.00	$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	$0.00	Yes
ML16027	City of Whittier	1/8/2016	11/7/2022		$30,000.00	$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	$0.00	Yes
ML16037	City of Rancho Cucamonga	2/5/2016	11/4/2022		$30,000.00	$30,000.00	Purchase One Heavy-Duty Natural Gas Vehi	$0.00	Yes
ML16050	City of Westminster	5/6/2016	7/5/2020	5/5/2022	$115,000.00	$93,925.19	Installation of EV Charging Infrastructure	$21,074.81	No
ML16055	City of Ontario	5/6/2016	5/5/2022		$270,000.00	$270,000.00	Purchase Nine Heavy-Duty Natural-Gas Veh	$0.00	Yes
ML16059	City of Burbank	4/1/2016	2/28/2022		$180,000.00	$180,000.00	Purchase 6 H.D. Nat. Gas Vehicles	$0.00	No
ML16061	City of Murrieta	4/27/2016	1/26/2020		$11,642.00	$9,398.36	Installation of EV Charging Infrastructure	$2,243.64	Yes
ML16062	City of Colton	6/3/2016	7/2/2020		$25,000.00	$21,003.82	Installation of EV Charging Infrastructure	$3,996.18	Yes
ML16063	City of Glendora	3/4/2016	4/3/2022		$30,000.00	$30,000.00	Purchase One H.D. Nat. Gas Vehicle	$0.00	Yes
ML16072	City of Palm Desert	3/4/2016	1/4/2020	1/3/2022	$56,000.00	$56,000.00	Installation of EV Charging Infrastructure	$0.00	Yes
ML16079	City of Yucaipa	4/1/2016	3/31/2020		$5,000.00	$5,000.00	Purchase Electric Lawnmower	$0.00	Yes
MS16081	EDCO Disposal Corporation	3/4/2016	10/3/2022		$150,000.00	$150,000.00	Expansion of Existing Public Access CNG St	$0.00	Yes
MS16088	Transit Systems Unlimited, Inc.	5/12/2017	1/11/2023		$17,000.00	$17,000.00	Expansion of Existing CNG Station	$0.00	Yes
MS16114	City of Norwalk	3/3/2017	6/2/2024		$45,000.00	$32,170.00	Repower 3 Transit Buses	$12,830.00	Yes
MS16116	Riverside Transit Agency	3/3/2017	1/2/2023		$10,000.00	$9,793.00	Repower One Transit Bus	$207.00	No
Total: 18									

FY 2016-2018 Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Open Contracts									
ML18019	City of Hidden Hills	5/3/2018	5/2/2022		$49,999.00	$10,000.00	Purchase Two Light-Duty ZEVs and EVSE	$39,999.00	No
ML18020	City of Colton	5/3/2018	4/2/2024		$67,881.00	$0.00	Purchase One Medium-Duty and One Heavy	$67,881.00	No
ML18021	City of Signal Hill	4/6/2018	1/5/2022		$49,661.00	$0.00	Install EVSE	$49,661.00	No
ML18022	City of Desert Hot Springs	5/3/2018	1/2/2020		$50,000.00	$0.00	Traffic Signal and Synchronization Project	$50,000.00	No
ML18028	City of Artesia	6/28/2018	3/27/2025		$50,000.00	$0.00	Install EVSE	$50,000.00	No
ML18030	City of Grand Terrace	6/28/2018	3/27/2022		$45,000.00	$0.00	Install EVSE	$45,000.00	No
ML18034	City of Calabasas	6/8/2018	3/7/2022		$50,000.00	$0.00	Install EVSE	$50,000.00	No
ML18037	City of Westminster	6/28/2018	6/27/2024		$120,900.00	$0.00	Install EVSE, Purchase up to 3-LD ZEV & 1-	$120,900.00	No
ML18039	City of Redlands	6/28/2018	7/27/2024		$87,000.00	$0.00	Purchase 1 Medium/Heavy-Duty ZEV and In	$87,000.00	No
ML18042	City of San Fernando	6/28/2018	2/27/2024		$10,000.00	$0.00	Purchase 1 Lighty-Duty ZEV	$10,000.00	No
ML18045	City of Culver City Transportation De	6/28/2018	6/27/2025		$51,000.00	$0.00	Purchase Light-Duty ZEV	$51,000.00	No
ML18048	City of Lynwood	6/28/2018	10/27/2024		$93,500.00	$0.00	Purchase Up to 3 Medium H.D. Zero-Emissi	$93,500.00	No
ML18049	City of Downey	7/6/2018	5/5/2023		$148,260.00	$0.00	Install EVSE	$148,260.00	No
MS18001	Los Angeles County MTA	6/29/2017	4/30/2018		$807,945.00	$468,050.00	Provide Clean Fuel Transit Service to Dodge	$339,895.00	No
MS18002	Southern California Association of G	6/9/2017	11/30/2018	6/30/2019	$2,500,000.00	$0.00	Regional Active Transportation Partnership	$2,500,000.00	No
MS18003	Geographics	2/21/2017	2/20/2021		$56,953.00	$48,479.86	Design, Host and Maintain MSRC Website	$8,473.14	No
MS18004	Orange County Transportation Autho	8/3/2017	4/30/2019		$503,272.00	$0.00	Provide Special Rail Service to Angel Stadiu	$503,272.00	No
MS18005	Orange County Transportation Autho	1/5/2018	4/30/2019		$834,222.00	$405,709.29	Clean Fuel Bus Service to OC Fair	$428,512.71	No
MS18006	Anaheim Transportation Network	10/6/2017	2/28/2020		$219,564.00	$9,488.22	Implement Anaheim Circulator Service	$210,075.78	No
MS18008	Foothill Transit	1/12/2018	3/31/2019		$100,000.00	$0.00	Special Transit Service to LA County Fair	$100,000.00	No
MS18010	Southern California Regional Rail Au	12/28/2017	7/31/2019		$351,186.00	$0.00	Implement Special Metrolink Service to Unio	$351,186.00	No
MS18011	Southern California Regional Rail Au	2/9/2018	6/30/2018		$239,565.00	$0.00	Special Train Service to Festival of Lights	$239,565.00	No
MS18012	City of Hermosa Beach	2/2/2018	2/1/2024		$36,000.00	$0.00	Construct New Limited-Access CNG Station	$36,000.00	No
MS18018	City of Norwalk	6/8/2018	9/7/2019		$75,000.00	$0.00	Vehicle Maintenance Facility Modifications	$75,000.00	No
MS18023	Riverside County Transportation Co	6/28/2018	6/27/2021		$500,000.00	$0.00	Weekend Freeway Service Patrols	$500,000.00	No
MS18024	Riverside County Transportation Co	6/28/2018	8/27/2021		$1,500,000.00	$0.00	Vanpool Incentive Program	$1,500,000.00	No
Total: 26									
Pending Execution Contracts									
ML18031	City of Diamond Bar				$73,930.00	$0.00	Install EVSE, Purchase up to 2-LD Vehicles	$73,930.00	No
ML18032	City of Arcadia				$74,650.00	$0.00	Purchase 1-HD ZEV & 1-HD Near-ZEV	$74,650.00	No
ML18033	City of Duarte				$50,000.00	$0.00	Purchase 1-HD ZEV	$50,000.00	No
ML18035	City of Westlake Village				$50,000.00	$0.00	Install EVSE	$50,000.00	No
ML18036	City of Indian Wells				$50,000.00	$0.00	Install EVSE	$50,000.00	No
ML18038	City of Anaheim				$221,500.00	$0.00	Purchase 5 Light-Duty ZEVs and Install EVS	$221,500.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML18040	City of Agoura Hills				$50,000.00	$0.00	Install EV Charging Infrastructure	$50,000.00	No
ML18041	City of West Hollywood				$50,000.00	$0.00	Install EV Charging Infrastructure	$50,000.00	No
ML18043	City of Yorba Linda				$87,990.00	$0.00	Install EV Charging Infrastructure	$87,990.00	No
ML18044	City of Malibu				$50,000.00	$0.00	Install EV Charging Infrastructure	$50,000.00	No
ML18046	City of Santa Ana				$385,000.00	$0.00	Purchase 6 Light-Duty ZEVs, 9 Heavy-Duty	$385,000.00	No
ML18047	City of Whittier				$113,910.00	$0.00	Purchase 5 Heavy-Duty Near ZEVs	$113,910.00	No
ML18050	City of Irvine				$330,490.00	$0.00	Purchase 1 Medium/Heavy-Duty ZEV and In	$330,490.00	No
ML18051	City of Rancho Cucamonga				$227,040.00	$0.00	Purchase 9 Light-Duty ZEVs, 2 Med-Duty Z	$227,040.00	No
ML18052	City of Garden Grove				$53,593.00	$0.00	Purchase 4 L.D. ZEVs and Infrastructure	$53,593.00	No
ML18053	City of Paramount				$72,580.00	$0.00	Install EV Charging Infrastructure	$72,580.00	No
ML18054	City of La Habra Heights				$9,200.00	$0.00	Purchase 1 L.D. ZEV	$9,200.00	No
ML18055	City of Long Beach Fleet Services B				$622,220.00	$0.00	Install EVSE	$622,220.00	No
ML18056	City of Chino				$103,868.00	$0.00	Install EV Charging Infrastructure	$103,868.00	No
ML18057	City of Carson				$106,250.00	$0.00	Purchase 5 Zero-Emission Vehicles and Infr	$106,250.00	No
ML18058	City of Perris				$94,624.00	$0.00	Purchase 1 Med. H.D. ZEV and EV Chargin	$94,624.00	No
ML18059	City of Glendale Water & Power				$260,500.00	$0.00	Install Electric Vehicle Charging Infrastructur	$260,500.00	No
ML18060	County of Los Angeles Internal Servi				$1,367,610.00	$0.00	Purchase 29 Light-Duty ZEVs, 1 Med/Heavy	$1,367,610.00	No
ML18061	City of Moreno Valley				$25,000.00	$0.00	Purchase 1 Heavy-Duty Near-ZEV	$25,000.00	No
ML18062	City of Beaumont				$25,000.00	$0.00	Purchase 1 Heavy-Duty Near-ZEV	$25,000.00	No
ML18063	City of Riverside				$383,610.00	$0.00	Expand Existing CNG Fueling Station	$383,610.00	No
ML18064	City of Eastvale				$80,400.00	$0.00	Purchase 2 Med. H.D. Zero Emission Vehicl	$80,400.00	No
ML18067	City of Pico Rivera				$83,500.00	$0.00	Instal EVSE	$83,500.00	No
ML18068	City of Mission Viejo				$125,690.00	$0.00	Purchase 2 Light-Duty ZEVs, Install EVSE &	$125,690.00	No
ML18069	City of Torrance				$187,400.00	$0.00	Purchase 4 Heavy-Duty Near ZEV and Instal	$187,400.00	No
ML18070	City of Lomita				$32,750.00	$0.00	Purchase 1 Light-Duty ZEV, Install Bike Rac	$32,750.00	No
ML18071	City of Chino Hills				$30,000.00	$0.00	Purchase 2 Light-Duty ZEVs and Install EVS	$30,000.00	No
ML18072	City of Anaheim				$239,560.00	$0.00	Purchase 9 Light-Duty ZEVs & 2 Med/Hvy-D	$239,560.00	No
ML18074	City of Buena Park				$107,960.00	$0.00	EV Charging Infrastructure	$107,960.00	No
ML18076	City of Culver City Transportation De				$1,130.00	$0.00	Purchase Light-Duty ZEV	$1,130.00	No
ML18077	City of Orange				$59,776.00	$0.00	Four Light-Duty ZEV and EV Charging Infras	$59,776.00	No
ML18078	County of Riverside				$425,000.00	$0.00	17 Heavy-Duty Vehicles	$425,000.00	No
ML18079	Pasadena Water & Power				$183,670.00	$0.00	EV Charging Infrastructure	$183,670.00	No
ML18080	City of Santa Monica				$121,500.00	$0.00	EV Charging Infrastructure	$121,500.00	No
ML18081	City of Beaumont				$31,870.00	$0.00	EV Charging Infrastructure	$31,870.00	No
ML18082	City of Los Angeles Bureau of Sanita				$900,000.00	$0.00	Purchase Medium-Duty Vehicles and EV Ch	$900,000.00	No
MS18009	Penske Truck Leasing Co., L.P.				$82,500.00	$0.00	Modify Maintenance Facility & Train Technici	$82,500.00	No
MS18014	Regents of the University of Californi				$254,795.00	$0.00	Planning for EV Charging Infrastructure Inve	$254,795.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS18015	Southern California Association of G				$2,000,000.00	$0.00	Southern California Future Communities Par	$2,000,000.00	No
MS18016	Southern California Regional Rail Au				$87,764.00	$0.00	Special Train Service to Auto Club Speedwa	$87,764.00	No
MS18017	City of Banning				$225,000.00	$0.00	Expansion of Existing CNG Infrastructure	$225,000.00	No
MS18025	Los Angeles County MTA				$1,324,560.00	$0.00	Special Bus and Train Service to Dodger Sta	$1,324,560.00	No
MS18026	Omnitrans				$83,000.00	$0.00	Modify Vehicles Maintenance Facility and Tr	$83,000.00	No
MS18027	City of Gardena				$365,000.00	$0.00	Install New Limited Access CNG, Modify Mai	$365,000.00	No
MS18029	Irvine Ranch Water District				$190,000.00	$0.00	Install New Limited Access CNG Station & T	$190,000.00	No
MS18065	San Bernardino County Transportatio				$2,000,000.00	$0.00	Implement Metrolink Line Fare Discount Pro	$2,000,000.00	No
MS18066	El Dorado National				$100,000.00	$0.00	Install New Limited-Access CNG Station	$100,000.00	No
MS18073	Los Angeles County MTA				$2,000,000.00	$0.00	Purchase 40 Zero-Emission Transit Buses	$2,000,000.00	No
Total: 53									
Declined/Cancelled Contracts									
ML18075	City of Orange				$25,000.00	$0.00	One Heavy-Duty Vehicle	$25,000.00	No
MS18013	California Energy Commission				$3,000,000.00	$0.00	Advise MSRC and Administer Hydrogen Infr	$3,000,000.00	No
Total: 2									

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 28

REPORT: California Air Resources Board Monthly Meeting

SYNOPSIS: The California Air Resources Board met on June 28 and July 26, 2018 in Sacramento, CA. The following are summaries of those meetings.

RECOMMENDED ACTION:
Receive and file.

Judith Mitchell, Member
SCAQMD Governing Board

dg

The California Air Resources Board (CARB or Board) held a meeting on June 28, 2018 in Sacramento at the California Environmental Protection Agency Headquarters Building. Key items presented are summarized below.

CONSENT ITEM

18-5-1: Public Hearing to Consider Submission of the 2013 Amendments to the Cargo Tank Vapor Recovery Regulation into the California State Implementation Plan

The Board adopted a resolution directing CARB staff to submit the 2013 Amendments to the Cargo Tank Vapor Recovery Regulation into the California State Implementation Plan (Cargo Tank SIP Submittal). The Cargo Tank SIP Submittal is required to satisfy Clean Air Act Reasonable Available Control Technology requirements and demonstrates the Cargo Tank Vapor Recovery Regulation meets the level of control need in the Control Techniques Guidelines for Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems. CARB staff will submit the Cargo Tank SIP Submittal to U.S. EPA as a revision to the California SIP.

DISCUSSION ITEMS

18-5-2: Public Hearing to Consider Proposed Amendments to California Emission Control System Warranty Regulations and Maintenance Provisions for 2022 and Subsequent Model Year On-Road Heavy-Duty Diesel Vehicles with Gross Vehicle Weight Ratings Greater Than 14,000 Pounds and Heavy-Duty Diesel Engines in Such Vehicles

The Board approved amendments to the California warranty and maintenance provisions for on-road heavy-duty (HD) diesel vehicles, and the engines used in such vehicles. The current warranty coverage of 100,000 miles is well below the expected service mileage of many modern HD vehicles and engines which can be 500,000 to over 1,000,000 miles. The amendments lengthen the existing warranty periods and shorten the period between maintenance check-ups. These amendments will reduce emissions by incentivizing vehicle owners to perform required maintenance, seek more timely repairs, and encourage manufacturers to design and produce more durable parts. The amendments also clarify that the warranty coverage extends to all parts in the vehicle that could cause the illumination of the HD on-board diagnostic system malfunction indicator light.

18-5-3: Public Meeting to Hear an Update on Implementation of Assembly Bill 617 (The Community Air Protection Program)

The Board heard an update on efforts to implement the mandates of Assembly Bill (AB) 617. CARB's Community Air Protection Program (Program) will implement a new community focused planning framework to identify impacted communities, establish criteria for air monitoring and local emissions reduction programs, and develop strategies for reducing emissions. CARB staff informed the Board of the ongoing work identifying impacted communities, fostering community engagement, and developing community-focused strategies to meet the goals of AB 617. This included the recent release of a draft Blueprint outlining program requirements, and the announcement of community organizations who will be receiving grants to support community capacity building and engagement in the Program. In September, the Board will consider approval of the Blueprint and recommendations for communities to be selected for the first year of the Program.

SCAQMD Staff Comments/Testimony: Wayne Nastri, Executive Officer, provided an update of SCAQMD efforts related to AB 617, including BARCT work, extensive public engagement, and community identification and prioritization. He stressed the importance of maintaining clear communications and managing expectations, and noted that CARB should not duplicate systems already in place. He also commented that statutory requirements should not be exceeded, and that the process to transfer funds to

the Districts should be streamlined. Mr. Nastri concluded with SCAQMD's commitment to the joint clean air mission and that staff looks forward to working together on AB 617.

18-5-4: Report from the Office of the Ombudsman 2017

The Board heard a report by the Ombudsman on the 2017 enhancements to the California Air Resources Board's Ombudsman and Small Business program, including a plan for a more comprehensive engagement process for regulated small businesses. The primary focus of the Ombudsman's office is working with California's small businesses to engage them in the development of regulations early in the process so they are active participants, to assist small businesses with rule compliance including support procuring available incentive funding, and to promote CARB goals in the small business community such as the adoption of zero-emission vehicles.

18-5-5: Public Meeting to Hear the Enforcement Division 2017 Annual Report

The Board heard the Enforcement Division 2017 Annual Report, highlighting 2017 Enforcement Division activities in key programs including enforcement at freight facilities, statewide diesel enforcement, field enforcement and citation processing, clean fuels regulations, aftermarket parts and vehicle enforcement, and refrigerant management. In 2017, the Enforcement Division provided extensive outreach and enforcement in regions heavily impacted by pollution such as disadvantaged communities, ports, and railyards. Enforcement Division staff levied $17.5 million in penalties against noncompliant businesses, of which $2.5 million went to funding new Supplemental Environmental Projects in disadvantaged communities. Staff also presented Enforcement Division 2018 goals, which include the implementation of a new truck and bus enforcement process, the expansion of aftermarket parts enforcement, support for the Cal/EPA Environmental Justice Task Force through participation in multimedia coordinated inspections, enforcement in disadvantaged communities identified through the Community Air Protection Program, and continued diesel certification investigations.

18-5-6: Public Meeting to Hear an Informational Update on the Benefits of High Efficiency Filtration to Indoor Air Quality

The Board heard an informational update on research studies funded by CARB that examined the use of high efficiency filtration in homes. These studies investigated the effectiveness of filtration on reducing indoor pollutant levels. Since people spend approximately 90 percent of their time indoors, a significant fraction of air pollutant exposure occurs indoors. This indoor exposure to pollution affects human health, particularly for vulnerable populations such as children, the elderly, and people with pre-existing respiratory or cardiovascular disease. These studies demonstrated that the use of high-efficiency filtration significantly reduces indoor exposure to particulate matter and can lower negative health impacts related to indoor air pollution.

The California Air Resources Board (CARB or Board) held a meeting on July 26, 2018 in Sacramento at the California Environmental Protection Agency Headquarters Building. Key items presented are summarized below.

DISCUSSION ITEMS

18-6-5: Public Hearing to Consider Environmental Comments from John R. Lawson Rock & Oil, Inc. Regarding Board Item

The Board considered CARB staff's responses to environmental comments submitted by John R. Lawson Rock & Oil, Inc. for the May 25, 2018 Board hearing Item 18-4-3, regarding Proposed Amendments to the Heavy-Duty Vehicle Inspection Program (HDVIP) and Periodic Smoke Inspection Program Regulation (PSIP). Staff received the comment letter from John R. Lawson Rock & Oil, Inc. during the May 25, 2018 Board Hearing, but program staff for this item was unaware of the letter until after the hearing. Program staff was unable to respond to the comments regarding environmental issues until after the Board took action on the item at the May 25 hearing. The Board today set aside the Board's May 25 approval of the HDVIP and PSIP amendments, considered and approved staff's written responses to comments, and re-approved the HDVIP and PSIP amendments.

18-6-2: Public Meeting to Consider Senate Bill 350 Integrated Resource Planning Electricity Sector Greenhouse Gas Planning Targets

The Board approved the methodology for establishing the greenhouse gas (GHG) planning target ranges and specific GHG planning target ranges for the electricity sector, load serving entities, and publicly owned utilities for use in Integrated Resource Plans (IRP) pursuant to Senate Bill 350 (SB 350). SB 350 requires load-serving entities

under the jurisdiction of the CPUC and qualifying public owned utilities to develop IRPs that meet GHG emission reductions planning targets established by CARB in coordination with California Public Utilities Commission and California Energy Commission. The Board also certified the Final Environmental Analysis.

18-6-1: Public Meeting to Consider Proposed Guidelines for the Clean Cars 4 All and Enhanced Fleet Modernization (Car Scrap and Replace) Programs

The Board adopted guidelines for the Clean Cars 4 All Program and changes to the existing guidelines for the Enhanced Fleet Modernization Program (EFMP). The amendments are in response to Assembly Bill 630 (AB 630) (Cooper, Chapter 636, Statutes of 2017), which establishes the Clean Cars 4 All Program for lower-income consumers, codifying the EFMP Plus-Up pilot project as a formal program. AB 630 requires that the Clean Cars 4 All Program and EFMP include specific, measureable goals, and that CARB evaluates the progress towards those goals at the end of each year for any needed changes. AB 630 directs CARB to finalize guidelines for the Clean Cars 4 All Program and update the EFMP guidelines by January 1, 2019.

18-6-3: Public Meeting to Consider Cap-and-Trade Auction Proceeds: Funding Guidelines for Agencies that Administer California Climate Investments

The Board approved updates to the "Funding Guidelines for Agencies Administering California Climate Investments." These Guidelines apply to all projects funded by the Greenhouse Gas Reduction Fund (i.e., Cap-and-Trade auction proceeds). The updates reflect statutory changes and include new or revised guidance for: Program administration; quantification of greenhouse gas reductions and co-benefits; project tracking and reporting; maximizing benefits for disadvantaged communities; and guidance for targeting investments to disadvantaged communities, low-income communities, and low-income households.

18-6-6: Public Meeting to Consider Board Members' Initial Staggered Terms

Assembly Bill 197 (AB 197) established six-year terms for the 14 voting members of the Board with the exception of "initial staggered terms," which the statute directed the Board to establish. AB 197 specifically allows all Board Members to be reappointed so these terms are not term limits, but rather specify the end of a particular term. To achieve the staggering required by AB 197, some of the initial staggered terms will necessarily need to be shorter than six years. Board Member Florez offered a motion to delay consideration that did not pass. The Board then passed a motion to adopt a plan with initial terms that expire in three staggered tiers: On December 31, 2018, two legislative appointees and one Governor appointee; on December 31, 2020, five Governor appointees; and on December 31, 2022, six Governor appointees.

18-6-4: Public Meeting to Hear an Informational Update on the Use of Satellite Remote Sensing Data to Support Air Quality Decision-Making

The Board heard an informational update on how satellite remote sensing data can estimate air quality levels and support air quality decision-making. Staff also presented results from in-house and collaborative satellite studies that can be used to support air quality decision-making.

Attachments
CARB June 28, 2018 and July 26, 2018 Meeting Agendas

CALIFORNIA AIR RESOURCES BOARD

PUBLIC MEETING AGENDA

June 28, 2018

LOCATION:
California Environmental Protection Agency
California Air Resources Board
Coastal Hearing Room, 2nd Floor
1001 I Street
Sacramento, California 95814

This facility is accessible by public transit. For transit information, call (916) 321-BUSS, website: http://www.sacrt.com
(This facility is accessible to persons with disabilities.)

TO SUBMIT WRITTEN COMMENTS ON AN AGENDA ITEM IN ADVANCE OF THE MEETING GO TO:
http://www.arb.ca.gov/lispub/comm/bclist.php

Thursday
June 28, 2018
9:00 a.m.

CONSENT CALENDAR:

The following items on the consent calendar will be presented to the Board immediately after the start of the public meeting, unless removed from the consent calendar either upon a Board member's request or if someone in the audience wishes to speak on them.

Consent Item #

18-5-1: Public Meeting to Consider Submission of the 2013 Amendments to the Cargo Tank Vapor Recovery Regulation into the California State Implementation Plan

The Board will consider adopting a resolution directing staff to submit the 2013 Amendments to the Cargo Tank Vapor Recovery Regulations into the California State Implementation Plan (Cargo Tank SIP Submittal). If adopted, CARB will submit the Cargo Tank SIP Submittal to the United States Environmental Protection Agency as a revision to the California State Implementation Plan.

More Information *Proposed Resolution*

DISCUSSION ITEMS:

Note: The following agenda items may be heard in a different order at the Board meeting.

Agenda Item #

18-5-2: Public Hearing to Consider Proposed Amendments to California Emission Control System Warranty Regulations and Maintenance Provisions for 2022 and Subsequent Model Year On-Road Heavy-Duty Diesel Vehicles with Gross Vehicle Weight Ratings Greater Than 14,000 Pounds and Heavy-Duty Diesel Engines in Such Vehicles

The Board will consider proposed amendments to the California warranty and maintenance provisions for on-road heavy-duty (HD) diesel vehicles, and the engines used in such vehicles. Currently, because the warranty mileage period is disproportionate to the actual service lives of many modern HD vehicles and engines, vehicle owners have no incentive to pay for repairs of emissions-related problems that do not adversely affect fuel economy or performance, which

results in additional emissions. Accordingly, staff is proposing to lengthen both the existing warranty periods and minimum maintenance intervals so as to reduce emissions by incentivizing vehicle owners to perform required maintenance and to seek more timely repairs, and to encourage manufacturers to design and produce more durable parts. Staff is also proposing to clarify that the warranty coverage extends to any part that causes the illumination of the HD on-board diagnostic system malfunction indicator light.

More Information *Staff Presentation*

18-5-3: Public Meeting to Hear an Update on Implementation of Assembly Bill 617 (The Community Air Protection Program)

Spanish translation will be provided at the Board Meeting for this item, Item 18-5-3.

The Board will hear an update on efforts underway to implement the mandates of Assembly Bill 617. The California Air Resources Board's Community Air Protection Program will implement a new community focused planning framework to identify impacted communities, establish criteria for air monitoring and local emissions reduction programs, and develop strategies for reducing emissions. Staff will present for Board discussion and input key questions for program development.

More Information *Staff Presentation*

18-5-4: Report from the Office of the Ombudsman 2017

The Board will hear a report on the 2017 enhancements to the California Air Resources Board's Ombudsman and Small Business program, including a plan for a more comprehensive engagement process for regulated small businesses.

More Information *Staff Presentation*

18-5-5: Public Meeting to Hear the Enforcement Division 2017 Annual Report

The Board will hear the Enforcement Division 2017 Annual Report, which will include highlights of 2017 enforcement activities in key programs including enforcement at freight facilities, statewide diesel enforcement, field enforcement and citation processing, clean fuels regulations, aftermarket parts and vehicle enforcement, and refrigerant management. Staff will also describe the Division's implementation of Supplemental Environmental Projects and other enforcement initiatives in disadvantaged communities.

More Information *Staff Presentation*

18-5-6: Public Meeting to Hear an Informational Update on the Benefits of High Efficiency Filtration to Indoor Air Quality

The Board will hear an informational update on the California Air Resources Board's funded studies that examined the use of high efficiency filtration in homes to determine the effectiveness of filtration on reducing indoor pollutant levels.

More Information *Staff Presentation*

CLOSED SESSION

The Board may hold a closed session, as authorized by Government Code section 11126(e), to confer with, and receive advice from, its legal counsel regarding the following pending or potential litigation, and as authorized by Government Code section 11126(a):

American Fuels and Petrochemical Manufacturers, et al. v. Jane O'Keeffe, et al., U.S. District Court (D. Ore. Portland), Case No. 3:15-CV-00467; Plaintiffs' appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 15-35834.

California Air Resources Board v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1085.

Electric Power Supply Association, et al. v. Star, et al., U.S. Court of Appeals, Seventh Circuit, Case No. 17-2445.

In re La Paloma Generating Company, LLC, U.S. Bankruptcy Court, District of Delaware, Case No. 16-bk-12700.

Mexichem Fluor Inc. v. United States Environmental Protection Agency et al., U.S. Court of Appeals, District of Columbia Circuit, Case Nos. 15-1328 and 15-1329.

POET, LLC, et al. v. California Air Resources Board, et al., Superior Court of California (Fresno County), Case No. 09CECG04659; plaintiffs' appeal, California Court of Appeal, Fifth District, Case No. F064045; California Supreme Court, Case No. S213394 [remanded to trial court]; plaintiff's appeal of trial court order discharging peremptory writ of mandate, Court of Appeal, Fifth District, Case No. F073340.

POET, LLC, et al. v. California Air Resources Board, et al., Superior Court of California (Fresno County), Case No. 15CECG03380.

Rocky Mountain Farmers Union, et al. v. Corey, U.S. District Court (E.D. Cal. Fresno), Case No. 1:09−CV−02234−LJO−DLB; ARB interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 12-15131 [remanded to trial court].

American Fuels and Petrochemical Manufacturers, et al. v. Corey, et al., U.S. District Court (E.D. Cal. Fresno), Case No. 1:10-CV-00163-AWI-GSA; ARB's interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 10-CV-00163 [remanded to trial court].

Sowinski v. California Air Resources Board, et al., U.S. District Court, Central District of California, Case No. 8:15-CV-02123*;* Orange County Superior Court, Case No. 30-2018-00970852-CU-IP-CXC.

State of California, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1114.

State of California, et al. v. United States Bureau of Land Management, et al., U.S. District Court, Northern District of California Circuit, Case No. 3:17-cv-07186-WHO.

State of New York, et al. v. United States Environmental Protection Agency, U.S. District Court, District of Columbia, Case No. 1:18-cv-00773.

State of North Dakota, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1242.

State of North Dakota v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1381.

State of West Virginia et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1363.

State of Wyoming, et al. v. United States Department of the Interior, et al., U.S. District Court, District of Wyoming, Case No. 16-CV-285-SWS.

The Two Hundred, et al. v. California Air Resources Board, et al., Superior Court of California (Fresno County), Case No. 18CECG01494.

Truck Trailer Manufacturers Association, Inc. v. United States Environmental Protection Agency, et al., U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1430.

Valero Refining Co. California v. Hearing Board of the Bay Area Air Quality Management District et al., Court of Appeal, First Appellate District, Case No. A151004.

Adam Brothers Farming, Inc. v. California Air Resources Board, et al., Santa Barbara County Superior Court, Case No. 15 CV04432.

Alliance for California Business v. California Air Resources Board, et al., Glenn County Superior Court, Case No. 13CV01232; plaintiffs' appeal, Court of Appeal, Third District, Case No. C082828.

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Dalton Trucking, Inc. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 13-1283 (dismissed), U.S. Court of Appeals, Ninth Circuit, Case No. 13-74019.

John R. Lawson Rock & Oil, Inc. et al. v. California Air Resources Board et al., Fresno County Superior Court, Case No. 14-CECG01494; ARB's appeal, Court of Appeal, Fifth District, Case No. F074003.

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States of New York, California, Vermont, and Maryland, and the Commonwealth of Pennsylvania v. National Highway Traffic Safety Administration, U.S. Court of Appeals, Second Circuit, Case Nos. 17-2780(L) and 17-2806.

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People v. Southern California Gas Company, Los Angeles Superior Court, Case No. BC 602973.

In re: Volkswagen "Clean Diesel" MDL, United States District Court, Northern District of California, Case No. 15-MD-2672-CRB (JSC).

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CALIFORNIA AIR RESOURCES BOARD

REVISED 07/18/18

PUBLIC MEETING AGENDA

July 26, 2018

LOCATION:
California Environmental Protection Agency
California Air Resources Board
Coastal Hearing Room, 2nd Floor
1001 I Street
Sacramento, California 95814

This facility is accessible by public transit. For transit information, call (916) 321-BUSS, website: http://www.sacrt.com
(This facility is accessible to persons with disabilities.)

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Thursday
July 26, 2018
9:00 a.m.

DISCUSSION ITEMS:

Note: The following agenda items may be heard in a different order at the Board meeting.

Agenda Item #

(The agenda order noted below was revised on 07/18/18.)

18-6-5: Public Hearing to Consider Environmental Comments from John R. Lawson Rock & Oil, Inc. Regarding Board Item 18-4-3.

The Board will consider staff's responses to comments submitted by John R. Lawson Rock & Oil, Inc. at the May 25, 2018, Board hearing regarding Board Item 18-4-3, Proposed Amendments to the Heavy-Duty Vehicle Inspection Program and Periodic Smoke Inspection Program Regulation. The Board will also consider the amendments in light of those comments and whether additional Board action is necessary.

18-6-2: Public Meeting to Consider Senate Bill 350 Integrated Resource Planning Electricity Sector Greenhouse Gas Planning Targets

The Board will consider a proposed methodology for establishing the greenhouse gas (GHG) planning target ranges and specific proposed GHG planning target ranges for the electricity sector, load serving entities, and publicly owned utilities for use in Integrated Resource Plans pursuant to Senate Bill 350. The Board will also consider certifying the Final Environmental Analysis.

More Information *Staff Presentation*

18-6-1: Public Meeting to Consider Proposed Guidelines for the Clean Cars 4 All and Enhanced Fleet Modernization (Car Scrap and Replace) Programs

The Board will consider proposed guidelines for the Clean Cars 4 All Program and proposed changes to the existing guidelines for the Enhanced Fleet Modernization Program (EFMP). Assembly Bill 630 (Cooper, Chapter 636, Statutes of 2017) directs CARB to finalize guidelines for Clean Cars 4 All and update the EFMP guidelines by January 1, 2019.

More Information *Staff Presentation*

18-6-3: Public Meeting to Consider Cap-and-Trade Auction Proceeds: Funding Guidelines for Agencies that Administer California Climate Investments

Spanish translation will be provided at the Board Meeting for this item, Item 18-6-3.

The Board will consider updates to the "Funding Guidelines for Agencies Administering California Climate Investments." These Guidelines apply to all projects funded by the Greenhouse Gas Reduction Fund (i.e., Cap-and-Trade auction proceeds). The proposed updates reflect statutory changes and include new or revised guidance for: program administration; quantification of greenhouse gas reductions and co-benefits; project tracking and reporting; maximizing benefits for disadvantaged communities; and guidance for targeting investments to disadvantaged communities, low-income communities, and low-income households.

More Information *Staff Presentation*

18-6-4: Public Meeting to Hear an Informational Update On the Use of Satellite Remote Sensing Data to Support Air Quality Decision-Making

The Board will hear how satellite remote sensing data can estimate air quality levels. Staff will also present results from in-house and collaborative satellite studies that can be used to support air quality decision-making.

Staff Presentation

18-6-6: Public Meeting to Consider Board Members' Initial Staggered Terms

Assembly Bill 197 established six-year terms for the 14 voting members of the Board with the exception of "initial staggered terms," which the statute directed the Board to establish. The Board will consider the adoption of initial staggered terms with specified term expiration dates.

CLOSED SESSION

The Board may hold a closed session, as authorized by Government Code section 11126(e), to confer with, and receive advice from, its legal counsel regarding the following pending or potential litigation, and as authorized by Government Code section 11126(a):

American Fuels and Petrochemical Manufacturers, et al. v. Jane O'Keeffe, et al., U.S. District Court (D. Ore. Portland), Case No. 3:15-CV-00467; Plaintiffs' appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 15-35834.

California Air Resources Board v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1085.

Electric Power Supply Association, et al. v. Star, et al., U.S. Court of Appeals, Seventh Circuit, Case No. 17-2445.

In re La Paloma Generating Company, LLC, U.S. Bankruptcy Court, District of Delaware, Case No. 16-bk-12700.

Mexichem Fluor Inc. v. United States Environmental Protection Agency et al., U.S. Court of Appeals, District of Columbia Circuit, Case Nos. 15-1328 and 15-1329.

POET, LLC, et al. v. California Air Resources Board, et al., Superior Court of California (Fresno County), Case No. 09CECG04659; plaintiffs' appeal, California Court of Appeal, Fifth District, Case No. F064045; California Supreme Court, Case No. S213394 [remanded to trial court]; plaintiff's appeal of trial court order discharging peremptory writ of mandate, Court of Appeal, Fifth District, Case No. F073340.

POET, LLC, et al. v. California Air Resources Board, et al., Superior Court of California (Fresno County), Case No. 15CECG03380.

Rocky Mountain Farmers Union, et al. v. Corey, U.S. District Court (E.D. Cal. Fresno), Case No. 1:09−CV−02234−LJO−DLB; ARB interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 12-15131 [remanded to trial court].

American Fuels and Petrochemical Manufacturers, et al. v. Corey, et al., U.S. District Court (E.D. Cal. Fresno), Case No. 1:10-CV-00163-AWI-GSA; ARB's interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 10-CV-00163 [remanded to trial court].

Sowinski v. California Air Resources Board, et al., U.S. District Court, Central District of California, Case No. 8:15-CV-02123*;* Orange County Superior Court, Case No. 30-2018-00970852-CU-IP-CXC.

State of California, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1114.

State of California, et al. v. United States Bureau of Land Management, et al., U.S. District Court, Northern District of California Circuit, Case No. 3:17-cv-07186-WHO.

State of New York, et al. v. United States Environmental Protection Agency, U.S. District Court, District of Columbia, Case No. 1:18-cv-00773.

State of North Dakota, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1242.

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Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 29

REPORT: Status Report on Regulation XIII – New Source Review

SYNOPSIS: This report presents the federal Final Determination of Equivalency for January 2016 through December 2016. As such, it provides information regarding the status of Regulation XIII – New Source Review, in meeting federal NSR requirements and shows that SCAQMD's NSR program is in final compliance with applicable federal requirements from January 2016 through December 2016.

COMMITTEE: Stationary Source, August 17, 2018, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

LT:WCT:SKT

SUMMARY

SCAQMD's New Source Review (NSR) rules and regulations are designed to comply with federal and state Clean Air Act requirements and ensure that emission increases from new and modified sources do not interfere with efforts to attain and maintain the federal and state air quality standards, while economic growth in the South Coast region is not unnecessarily impeded. Regulation XIII - New Source Review, regulates and accounts for all emission changes (both increases and decreases) from the permitting of new, modified, and relocated stationary sources within the SCAQMD, excluding NOx and SOx sources that are subject to Regulation XX – Regional Clean Air Incentives Market (RECLAIM)[1].

Rule 1315 – Federal New Source Review Tracking System, was adopted by the Board on February 4, 2011 to maintain SCAQMD's ability to issue permits to major sources

[1] While the RECLAIM program is different than command and control rules for NOx and SOx and provides greater regulatory flexibility to businesses, its NSR requirements, as specified in Rule 2005, are designed to comply with the governing principles of NSR contained in the federal Clean Air Act (CAA) and the California State Health and Safety Code.

that require offsets, but obtain offset credits from the SCAQMD's Priority Reserve under Rule 1309.1, and/or that are exempt from offsets under SCAQMD Rule 1304. Since these sources are not exempt from offsets under the federal Clean Air Act, SCAQMD provides offsets from SCAQMD's internal bank consisting primarily of orphan shutdowns, i.e. emissions from sources that shut down but did not apply for emission reduction credits. The purpose of this Determination of Equivalency is to show that there are sufficient offsets in the internal bank to cover sources using these offsets for the year in question and projected to be used for the following two years.

Rule 1315 requires that, commencing with calendar year 2010, and for each calendar year thereafter, the Executive Officer prepare a Preliminary Determination of Equivalency (PDE) and Final Determination of Equivalency (FDE), which cover NSR activities for twelve-month periods. The calendar year 2016 FDE is required to be reported to the Board at the September 2018 Board meeting. In addition, Rule 1315 requires the Executive Officer to aggregate and track offsets debited from and deposited to SCAQMD's offset accounts for specified periods between October 1, 1990 and December 31, 2005 and each calendar year from 2006 through 2030 for purposes of making periodic determinations of compliance. The last annual report submitted to the Board on February 2, 2018 presented the PDE for calendar year 2016 and demonstrated that SCAQMD's NSR program continued to meet the federal offset requirements for calendar year 2016. Rule 1315 also requires that, commencing with calendar year 2011, and for each calendar year thereafter, the Executive Officer include in each FDE: the cumulative net emission increase of each nonattainment air contaminant that occurred at major and minor facilities from February 4, 2011, the date of adoption of Rule 1315, through the end of the calendar year 2011 reporting period and through the end of each subsequent reporting period; and the projected cumulative net emission increases at the end of each of the two subsequent reporting periods. The calendar year 2016 FDE contains the cumulative net emission increases through the end of calendar year 2016 and the projected cumulative net emission increases at the end of calendar years 2017 and 2018.

This report demonstrates compliance with federal NSR requirements by establishing aggregate equivalence with federal offset requirements for sources that were not exempt from federal offset requirements, but were either exempt from offsets or obtained their offsets from SCAQMD pursuant to Regulation XIII.

The FDE for calendar year 2016 is summarized in Table 1. Projections of SCAQMD's federal offset account balances for January 2017 through December 2017 and January 2018 through December 2018, as specified and required pursuant to Rule 1315(e), are presented in Table 2. These results demonstrate that there were, and project that there will be, adequate offsets available to mitigate all applicable emission increases during these reporting periods. This report demonstrates that, for calendar years 2016 through 2018, SCAQMD's NSR program continues to meet and is projected to meet federal

offset requirements and is equivalent to those requirements on an aggregate basis[2]. Although the U.S. EPA designated the South Coast Air Basin as being in attainment with the federal CO standard effective June 11, 2007, and as being in attainment with the federal PM10 standard effective July 26, 2013, the Coachella Valley has not attained the PM10 NAAQS. Therefore, SCAQMD will continue to track and report CO and PM10 (in the South Coast Air Basin) accumulated credits and account balances for informational purposes only.

Table 1
Federal Offset Accounts FDE for January 2016 through December 2016

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2015 Actual Ending Balance[a] (tons/day)	**101.20**	**24.82**	**4.10**	**15.75**	**14.96**
2016 Discount of Credits for Surplus Adjustment[b] (tons/day)	0.00	-2.73	0.00	0.00	0.00
2016 Actual Total Credits[c] (lbs/day)	9,437	1,394	434	30,374	2,438
2016 Actual Total Debits[c] (lbs/day)	-312	-169	0	-41	-52
2016 Sum of Actual Credits/Debits[c] (lbs/day)	**9,125**	**1,225**	**434**	**30,333**	**2,386**
2016 Sum of Actual Credits/Debits[c] (tons/day)	**4.56**	**0.61**	**0.22**	**15.17**	**1.19**
2016 Actual Ending Balance[d] (tons/day)	**105.76**	**22.70**	**4.32**	**30.92**	**16.15**

a Updated "2015 Actual Ending Balance". Balances previously reported in Table 1 of the 2016 PDE Report dated February 2, 2018 contained incorrect information.

b This adjustment is surplus at the time of use discount, which is also discussed in Rule 1315(c)(4).

c For an explanation of the sources of credits and debits please refer to page 9 of this report, as well as Rule 1315(c) and the February 4, 2011 Rule 1315 staff report. Credits are shown as positive and debits as negative, while the sums of credits/debits are shown as positive or negative, as appropriate.

d "2016 Actual Ending Balance" equals the "2015 Actual Ending Balance," plus the "2016 Discount of Credits for Surplus Adjustment" and the "2016 Sum of Actual Credits/Debits."

[2] SCAQMD's NSR program is deemed to be equivalent to federal offset requirements. SCAQMD's ending offset account balances remained positive, indicating there were adequate offsets during this reporting period.

Table 2
Projections of SCAQMD's Federal Offset Account Balances for
January 2017 through December 2017, and
January 2018 through December 2018

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2016 Actual Ending Balance[a] (tons/day)	**105.76**	**22.70**	**4.32**	**30.92**	**16.15**
2017 Projected Discount of Credits for Surplus Adjustment[b] (tons/day)	-0.12	-1.58	0.00	-0.22	0.00
2017 Projected Starting Balance (tons/day)	**105.64**	**21.12**	**4.32**	**30.70**	**16.15**
2017 Total Projected Credits[c] (lbs/day)	10,373	1,759	373	14,057	1,645
2017 Total Projected Debits[c] (lbs/day)	-695	-395	0	-4,169	-39
2017 Sum of Projected Credits/Debits[c] (lbs/day)	**9,678**	**1,364**	**373**	**9,888**	**1,606**
2017 Sum of Projected Credits/Debits[c] (tons/day)	**4.84**	**0.68**	**0.19**	**4.94**	**0.80**
2017 Projected Ending Balance[d] (tons/day)	**110.48**	**21.80**	**4.51**	**35.64**	**16.95**
2018 Projected Discount of Credits for Surplus Adjustment[b] (tons/day)	-0.03	-1.68	0.00	-0.05	0.00
2018 Projected Starting Balance (tons/day)	**110.45**	**20.12**	**4.51**	**35.59**	**16.95**
2018 Total Projected Credits[c] (lbs/day)	10,322	1,670	313	16,151	1,709
2018 Total Projected Debits[c] (lbs/day)	-790	-289	0	-5,003	-47
2018 Sum of Projected Credits/Debits[c] (lbs/day)	**9,532**	**1,381**	**313**	**11,148**	**1,662**
2018 Sum of Projected Credits/Debits[c] (tons/day)	**4.77**	**0.69**	**0.16**	**5.57**	**0.83**
2018 Projected Ending Balance[e] (tons/day)	**115.22**	**20.81**	**4.67**	**41.16**	**17.78**

[a] "2016 Actual Ending Balance" as shown in Table 1.

[b] This adjustment is surplus at the time of use discount, which is also discussed in Rule 1315(c)(4).

[c] For an explanation of the sources of credits and debits please refer to page 9 of this report, as well as Rule 1315(c) and the Rule 1315 staff report. Credits are shown as positive and debits as negative, while the sums of credits/debits are shown as positive or negative, as appropriate.

[d] "2017 Projected Ending Balance" equals the "2016 Actual Ending Balance," plus the "2017 Projected Discount of Credits for Surplus Adjustment" and the "2017 Sum of Projected Credits/Debits."

[e] "2018 Projected Ending Balance" equals the "2017 Projected Ending Balance" plus the "2018 Projected Discount of Credits for Surplus Adjustment" and the "2018 Sum of Projected Credits/Debits."

Table 3
Cumulative Net Emission Increase
(February 4, 2011 – December 31, 2016)

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2015 Net Emission Increase[a] (tons/day)	**-13.97**	**-2.30**	**-0.61**	**N/A**	**-0.15**
2016 Increases in Potential to Emit[b] (tons/day)	1.85	0.59	0.01	N/A	0.37
2016 Decreases in Potential to Emit[c] (tons/day)	-5.90	-0.87	-0.27	N/A	-1.52
Cumulative Net Emission Increase[d] (tons/day)	**-18.02**	**-2.58**	**-0.87**	**N/A**	**-1.30**
Rule 1315(g) Table B Threshold (through December of 2016 - tons/day)	**7.58**	**0.61**	**0.18**	**N/A**	**1.09**

[a] Updated "2015 Net Emission Increase". Net emission increases previously reported in Table 3 of the FDE report dated September 2, 2017 contained incorrect information.

[b] Increases in potential to emit that occur at major and minor facilities pursuant to Rule 1304 or Rule 1309.1.

[c] Decreases in potential to emit that occur at major and minor facilities pursuant to Rule 1304 or Rule 1309.1.

[d] "Cumulative Net Emission Increase" is the sum of the increases and decreases in the potential to emit that occur at major and minor facilities pursuant to Rule 1304 or Rule 1309.1 over the period of February 4, 2011 through December 31, 2016

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Table 4
Projections of Cumulative Net Emission Increase
January 2017 through December 2017, and
January 2018 through December 2018

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2016 Net Emission Increase[a] (tons/day)	**-4.05**	**-0.28**	**-0.26**	**N/A**	**-1.15**
2017 Projected Emission Increase[b] (tons/day)	2.61	0.93	0.18	N/A	0.52
2017 Projected Emission Decrease[b] (tons/day)	-5.84	-1.38	-0.33	N/A	-0.78
2017 Projected Cumulative Net Emission Increase[c] (tons/day)	**-7.28**	**-0.73**	**-0.41**	**N/A**	**-1.41**
Rule 1315(g) Table B 2017 Threshold (tons/day)	**8.85**	**0.68**	**0.21**	**N/A**	**1.29**
2018 Projected Emission Increase[d] (tons/day)	2.45	0.89	0.14	N/A	0.47
2018 Projected Emission Decrease[d] (tons/day)	-5.81	-1.46	-0.34	N/A	-0.82
2018 Projected Cumulative Net Emission Increase[e] (tons/day)	**-10.64**	**-1.30**	**-0.61**	**N/A**	**-1.76**
Rule 1315(g) Table B 2018 Threshold (tons/day)	**10.12**	**0.76**	**0.24**	**N/A**	**1.48**

[a] "2016 Net Emission Increase" is the sum of the "2016 Increase in Potential to Emit" and "2016 Decrease in Potential to Emit" shown in Table 3.

[b] "2017 Projected Emission Increase" and "2017 Projected Emission Decrease" are the averages of the 2012, 2013, 2014, 2015 and 2016 increases and decreases, respectively, in potential to emit.

[c] "2017 Projected Cumulative Net Emission Increase" is the sum of the "2017 Projected Emission Increase" and "2017 Projected Emission Decrease" added to the "2016 Net Emission Increase."

[d] "2018 Projected Emission Increase" and "2018 Projected Emission Decrease" are the averages of the 2013, 2014, 2015, 2016 and projected 2017 increases and decreases, respectively, in potential to emit.

[e] "2018 Projected Cumulative Net Emission Increase" is the sum of the "2018 Projected Emission Increase" and "2018 Projected Emission Decrease" added to the "2017 Projected Cumulative Net Emission Increase."

BACKGROUND

SCAQMD originally adopted its NSR program in 1976. U.S. EPA approved SCAQMD's NSR program into California's State Implementation Plan (SIP) initially on January 21, 1981 (46FR5965) and again on December 4, 1996 (61FR64291). Most recently, U.S. EPA approved SCAQMD's May 3, 2002 Rule 1309.1 amendments into the SIP on June 19, 2006. The original program has evolved into the current version of

the Regulation XIII rules in response to federal and state legal requirements and the changing needs of the local environment and economy. Specific amendments to the NSR rules were adopted by the Board on December 6, 2002 to facilitate and provide additional options for credit generation and use. Rule 1315 was adopted and re-adopted on September 8, 2006 and August 3, 2007, respectively. Rule 1309.1 was amended and replaced on September 8, 2006 and August 3, 2007, respectively. On November 3, 2008, in response to a law suit filed by a group of environmental organizations, a California State Superior Court Judge in the County of Los Angeles invalidated the August 3, 2007 adopted Rule 1315 and amendments to Rule 1309.1, and prohibited SCAQMD from taking any action to implement Rule 1315 or the amendments to Rule 1309.1 until it had prepared a new environmental assessment under the California Environmental Quality Act (CEQA). On February 4, 2011 SCAQMD adopted a revised and enhanced version of Rule 1315, which included a new CEQA assessment. U.S. EPA approved Rule 1315 into the SIP, and this approval was upheld by the U.S. Court of Appeals for the Ninth Circuit Court in 2015.

One element of SCAQMD's NSR program design is to offset emission increases in a manner at least equivalent to federal and state statutory NSR requirements. To this end, SCAQMD's NSR program implements the federal and state statutory requirements for NSR and ensures that construction and operation of new, relocated and modified stationary sources does not interfere with progress towards attainment of the National and State Ambient Air Quality Standards. SCAQMD's computerized emission tracking system is utilized to demonstrate equivalence with federal and state offset requirements on an aggregate basis. Specific NSR requirements of federal law are presented below.

Federal Law

The NSR requirements of federal law vary with respect to the area's attainment status and classification. Based on their classification in 2007, the South Coast Air Basin (SOCAB) and Salton Sea Air Basin (SSAB) must comply with the requirements for severe 17 and severe non-attainment areas, respectively, for ozone precursors (*i.e.,* VOC and NOx). However, in May of 2010, the SOCAB was re-designated as an extreme non-attainment area for ozone. During the equivalency period, both the SOCAB and the SSAB complied with their respective requirements for ozone non-attainment and serious non-attainment for PM10 and its precursors (*i.e.,* VOC, NOx, and SOx)[3]. SSAB is considered in attainment for CO. Although effective June 11, 2007, U.S. EPA designated the SOCAB as in attainment with federal CO standards, SCAQMD will continue to track and report CO accumulated credits and account balances for informational purposes only. Both SOCAB and SSAB are considered in attainment for SO_2 and NO_2; however, SOx and NOx are precursors to pollutants for which both

[3] As of July 26, 2013, SOCAB was redesignated as in attainment for the federal 24-hour PM10 standard and U. S. EPA approved a PM10 maintenance plan. SCAQMD will continue to track and report PM10 accumulated credits and account balances for informational purposes only in the SOCAB and for equivalency in the SSAB (Coachella Valley).

SOCAB and SSAB are designated as in nonattainment[4]. The Mojave Desert Air Basin (MDAB) is currently classified as in moderate nonattainment for ozone precursors (*i.e.*, VOC and NOx) and as in attainment for NO_2, SO_2, and CO. Federal law requires the use of Lowest Achievable Emission Rate (LAER) and offsets for emissions of nonattainment pollutants (or their precursors) for new, modified, and relocated stationary sources, when the source is considered a major stationary source[5] for the nonattainment pollutants (or their precursors). This report demonstrates compliance with the federal NSR offsets requirements.

OVERVIEW OF ANALYSIS METHODOLOGY

The two most important elements of federal nonattainment NSR requirements are LAER and emission offsetting for major sources. As set forth in SCAQMD's *Best Available Control Technology (BACT) Guidelines*, SCAQMD's BACT requirements are at least as stringent as federal LAER for major sources. Furthermore, the NSR emission offset requirements that SCAQMD implements through its permitting process ensure that sources provide emission reduction credits (ERCs) to offset their emission increases in compliance with federal requirements. As a result, these sources each comply with federal offset requirements by providing their own ERCs. However, certain sources are exempt from SCAQMD's offset requirements pursuant to Rule 1304 or qualify for offsets from SCAQMD's Community Bank (applications received between October 1, 1990 and February 1, 1996 only) or Priority Reserve, both pursuant to Rule 1309.1. Providing offset exemptions and the Priority Reserve (as well as the previously-administered Community Bank) is important to the NSR program and the local economy while encouraging installation of BACT. Therefore, SCAQMD has assumed the responsibility of providing the necessary offsets for exempt sources, the Priority Reserve, and the Community Bank. This report examines deposits to and withdrawals from SCAQMD's emission offset accounts during calendar year 2016 and demonstrates programmatic equivalence on an aggregate basis with federal emission offset requirements for the sources exempt from providing offsets and the sources that receive offsets from the Priority Reserve or the Community Bank.

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[4] SOx is a precursor to PM10 and NOx is a precursor to both PM10 and ozone.

[5] The major source thresholds for SOCAB, SSAB and MDAB, based on their attainment status during the calendar year 2016 reporting period are summarized below:

Pollutant	SOCAB	SSAB	MDAB
VOC	10 tons/year	25 tons/year	100 tons/year
NOx	10 tons/year	25 tons/year	100 tons/year
SOx	100 tons/year	100 tons/year	100 tons/year
PM10	100 tons/year	70 tons/year	100 tons/year
CO	100 tons/year	100 tons/year	100 tons/year

SCAQMD's Offset Accounts

For this report, federal debit and credit accounting for SCAQMD's offset accounts was conducted pursuant to the same procedures previously agreed to by U.S. EPA and as delineated in Rule 1315 and described in the staff report. Each of the pollutants subject to offset requirements has its own federal offset account. SCAQMD's NSR program is considered to provide equivalent or greater offsets of emissions as required by federal requirements for each subject pollutant provided the balance of offsets in SCAQMD's federal offset account for each pollutant remains positive.

Debit Accounting

SCAQMD tracks all emission increases that are offset through the Priority Reserve or the Community Bank, as well as all increases that are exempt from offset requirements pursuant to Rule 1304 – Exemptions. These increases are all debited from SCAQMD's federal offset accounts when they occur at federal major sources. For federal equivalency demonstrations, an offset ratio of 1.2-to-1.0 is used for extreme non-attainment pollutants (ozone and ozone precursors, *i.e.*, VOC and NOx) and a 1.0-to-1.0 ratio is used for all other non-attainment pollutants (non-ozone precursors, *i.e.*, SOx, CO, and PM10) to offset any such increases. That is, 1.2 pounds are deducted from SCAQMD's offset accounts for each pound of maximum allowable permitted potential to emit VOC or NOx increase at a federal source and 1.0 pound is deducted for each pound of maximum allowable permitted potential to emit SOx, CO, or PM10 at a federal source. A more detailed description of federal debit accounting is provided in the Rule 1315 staff report and Rule 1315(c)(2).

Furthermore, to comply with U.S. EPA's NSR Reform requirements applicable to extreme non-attainment areas for ozone, the SCAQMD tracks changes to facility-wide limits under Rule 1304 – Exemptions and debits any increases from the federal offset accounts accordingly.

Credit Accounting

When emissions from a permitted source are permanently reduced (*e.g.*, installation of control equipment, removal of the source) and the emission reduction is not required by rule or law and is not called for by an AQMP control measure that has been assigned a target implementation date[6], the permit holder may apply for ERCs for the pollutants reduced. If the permit holder for the source generating the emission reduction had previously received offsets from SCAQMD or has a positive NSR balance (*i.e.*, pre-1990 net emission increase), the quantity of SCAQMD offsets used or the amount of the positive NSR balance is subtracted from the reduction and paid back to SCAQMD's accounts prior to issuance of an ERC pursuant to Rule 1306. In certain other cases, permit holders do not always submit applications to claim ERCs or do not qualify to obtain ERCs for their equipment shutdowns or other eligible emission reductions.

[6] Refer to Rule 1309(b) for a complete explanation of eligibility requirements.

These unclaimed reductions are referred to as orphan shutdowns and are deposited in SCAQMD's offset accounts. ERCs provided as offsets by major sources in excess of the applicable federally-required offset ratio and all ERCs provided as offsets by minor sources not subject to federal offset requirements are also deposited in SCAQMD's federal offset accounts. A more detailed description of federal credit accounting is provided in Rule 1315(c)(3)(A) and its staff report.

DETERMINATION OF EQUIVALENCY WITH FEDERAL OFFSET REQUIREMENTS

The federal offset requirements FDE for calendar year 2016 and the projections for calendar years 2017 and 2018 are summarized in Tables 1 and 2, respectively. The detailed listing of actual final withdrawals, deposits and sum of withdrawals and deposits are shown in Tables A and B of Attachment 1 to this letter.

These account balances, shown in Tables A and B reflect the tracking sequence described under Rule 1315(c)(5).

CALIFORNIA ENVIRONMENTAL QUALITY ACT NET EMISSION INCREASES

Pursuant to Rule 1315(g)(1), net emission increases of nonattainment air contaminants at major and minor facilities are based on the sum of increases and decreases in potential to emit at major and minor facilities pursuant to Rule 1304 – Exemptions or Rule 1309.1 – Priority Reserve.

Increases in potential to emit for major and minor sources include potential to emit increases from the Priority Reserve or Community Bank pursuant to Rule 1309.1 and exemptions from the offset requirements of Rule 1303 – Requirements pursuant to Rule 1304 – Exemptions.

Decreases to potential to emit for major and minor sources include, but are not limited to, potential to emit reductions as a result of orphan shutdowns and/or orphan reductions.

In addition, pursuant to Rule 1315(g)(2), projections of cumulative net emission increases at the end of the two subsequent reporting periods are based upon the average of the aggregate increase in potential to emit of each nonattainment air contaminant and the average of the aggregate emissions reductions of the same nonattainment air contaminant for the five reporting periods most recently included in a PDE or an FDE for each of the reporting periods commencing with the 2011 reporting period, whichever is fewer reporting periods. For calendar year 2016 FDE, the averages are based on the 2012, 2013, 2014, 2015 and 2016 increases in potential to emit and emissions reductions. The purpose of Rule 1315(g) is to ensure that implementation of

Rule 1315 does not cause emission increases beyond those analyzed in the CEQA document for Rule 1315.

Cumulative net emission increases and projected cumulative net emission increases must remain below the thresholds shown in Table B of Rule 1315 in order for the Executive Officer to be able to continue to issue permits to exempt sources pursuant to Rule 1304 or subject to Rule 1309.1 Priority Reserve.

CONCLUSIONS

The analysis presented in this report demonstrates the following:

- For calendar year 2016, SCAQMD's NSR program provides equivalent offsets to those required by federal NSR requirements and is equivalent to the federal requirements on an aggregate basis. This conclusion is based on the fact that the final ending offset account balances for this calendar year reporting period, as shown in Table 1, remained positive for all pollutants.
- SCAQMD's projected offset account balances for 2017 and 2018 are projected to remain positive. This means that the sum of the estimated deposits to and withdrawals from SCAQMD's offset accounts during 2017 and 2018 are projected to remain positive and, therefore, demonstrates that SCAQMD's NSR program is equivalent to federal NSR requirements.
- From the date of adoption of Rule 1315 (February 4, 2011) to the end of calendar year 2016, both the cumulative net emission increase of each nonattainment air contaminant at major and minor facilities and the projected cumulative net emission increase for 2017 and 2018 remained below the thresholds identified in Table B of Rule 1315, and therefore the Executive Officer can continue to issue permits to construct and permits to operate that rely on further use of Rule 1304 exemptions or Rule 1309.1 Priority Reserve offsets to major and minor sources.

ATTACHMENTS

1. Detailed listing of actual debits, preliminary credits and sum of debits and credits.
2. Board Meeting Presentation

ATTACHMENT 1

Detailed listing of actual debits, preliminary credits and sum of debits and credits.

Table A
Total Actual Debits from SCAQMD's Federal Offset Accounts
(January 2016 through December 2016)*

SCAQMD OFFSETS USED	VOC	NOx	SOx	CO	PM10
Priority Reserve (lbs/day)	-82	-33	0	-9	0
Community Bank (lbs/day)	-3	0	0	0	0
Rule 1304 Exemptions (lbs/day)	-175	-108	0	-32	-52
Sum Total of SCAQMD Offsets (lbs/day)	-260	-141	0	-41	-52
1.2-to-1.0 Offset Ratio (lbs/day)	-52	-28	N/A	N/A	N/A
Total Actual Debits to SCAQMD Account (lbs/day)	**-312**	**-169**	**0**	**-41**	**-52**
Total Actual Debits to SCAQMD Account (tons/day)	**-0.16**	**-0.08**	**0**	**-0.02**	**-0.03**

* Updated "Total Actual Debits from SCAQMD's Federal Offset Accounts". Offsets previously reported in Table A of the 2016 PDE Report dated February 2, 2018 contained incorrect information.

Table B
Total Actual Credits to SCAQMD's Federal Offset Accounts
(January 2016 through December 2016)

CREDITS RECEIVED	VOC	NOx	SOx	CO	PM10
Major Source Orphan Credits (lbs/day)	6,041	339	0	34,749	1,703
Minor Source Orphan Credits (lbs/day)	5,755	1,404	543	3,219	1,345
Total Orphan Credits (lbs/day)	11,796	1,743	543	37,968	3,048
Adjustment to Actual Emissions[a] (lbs/day)	-2,359	-349	-109	-7,594	-610
Discount of ERCs[b] (lbs/day)	0	0	0	0	0
Creditable Minor Source ERC Use[c] (lbs/day)	0	0	0	0	0
Creditable Major Source ERC Use (lbs/day)	0	0	0	0	0
Total Actual Credits to SCAQMD Account (lbs/day)	**9,437**	**1,394**	**434**	**30,374**	**2,438**
Total Actual Credits to SCAQMD Account (tons/day)	**4.72**	**0.7**	**0.22**	**15.19**	**1.22**

[a] Adjustment of orphan shutdown and orphan reduction offset credits deposited in SCAQMD offset accounts to correct from potential emissions to actual emissions as discussed in Rule 1315(c)(3)(B)(i).

[b] Prior to issuance of ERCs, they are discounted for NSR "Payback," which includes payback of NSR balance, Community Bank and Priority Reserve allocations, and offset exemptions, as discussed in Rule 1315(c)(3)(A)(v) and Rule 1306(c).

[c] There is no creditable minor source ERC use for calendar year 2016.

Table C
Sum of Final Credits/Debits Activities in SCAQMD's Federal Offset Accounts
(January 2016 through December 2016)

Description	VOC	NOx	SOx	CO	PM10
Total Actual Debits[a] (lb/day)	-312	-141	0	-41	-52
Total Actual Credits[a] (lb/day)	9,437	1,394	434	30,374	2,438
Sum of Actual Debits(-)/Credits(+)[a] (lb/day)	**9,125**	**1,253**	**434**	**30,333**	**2,386**
Sum of Actual Debits(-)/Credits(+)[a] (ton/day)	**4.56**	**0.63**	**0.22**	**15.17**	**1.19**

[a] Debits are shown as negative and Credits as positive, while their sum is shown as negative or positive, as appropriate.

ATTACHMENT 2

Status Report on Regulation XIII – New Source Review

Governing Board Meeting
September 7, 2018

NSR Status Report Overview

Purpose:

Demonstrate SCAQMD's NSR program meets federal NSR offset requirements for Major Sources, for sources that are exempt from offsets under SCAQMD's NSR rule

NSR Status Report History

- SCAQMD has produced annual NSR Status Reports going back to 1990
- Around 2002-2004 EPA requested SCAQMD to adopt a rule to memorialize equivalency demonstrations
- SCAQMD adopted Rule 1315 - Federal NSR Tracking System in 2006/2007 and adopted a revised Rule 1315 in February 2011
- EPA approved Rule 1315 into the SIP and it became effective on June 25, 2012

Rule 1315
Federal NSR Tracking System

- Rule 1315 established procedures to demonstrate equivalency with federal NSR offset requirements
  - Tracks debits from and credits to SCAQMD's federal internal offset account for each pollutant
  - Annual Preliminary Determination of Equivalency (PDE), Final Determination of Equivalency (FDE) and Projections
  - Balances in SCAQMD's federal offset account must remain positive
  - Cumulative Net Emission Increases must remain below Rule 1315(g) thresholds

SCAQMD's Federal NSR Offset Accounts
Final Determination of Equivalency (FDE)
(CY 2016)

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2015 Final Ending Balance (tons/day)	**101.20**	**24.82**	**4.10**	**15.75**	**14.96**
2016 Total Credits (tons/day)	4.72	0.7	0.22	15.19	1.22
2016 Total Debits (tons/day)	-0.16	-0.09	0	-0.02	-0.03
2016 Total Discount of Credits for Surplus Adjustment (tons/day)	0.00	-2.73	0.00	0.00	0.00
2016 Final Ending Balance (tons/day)	**105.76**	**22.70**	**4.32**	**30.92**	**16.15**

Cumulative Net Emission Increase
February 4, 2011 – December 31, 2016

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2015 Net Emission Increase (tons/day)	-13.97	-2.30	-0.61	N/A	-0.15
2016 Increases in Potential to Emit (tons/day)	1.85	0.59	0.01	N/A	0.37
2016 Decreases in Potential to Emit (tons/day)	-5.90	-0.87	-0.27	N/A	-1.52
Cumulative Net Emission Increase (tons/day)	**-18.02**	**-2.58**	**-0.87**	**N/A**	**-1.30**
Rule 1315(g) Table B Threshold (tons/day)	**7.58**	**0.61**	**0.18**	**N/A**	**1.09**

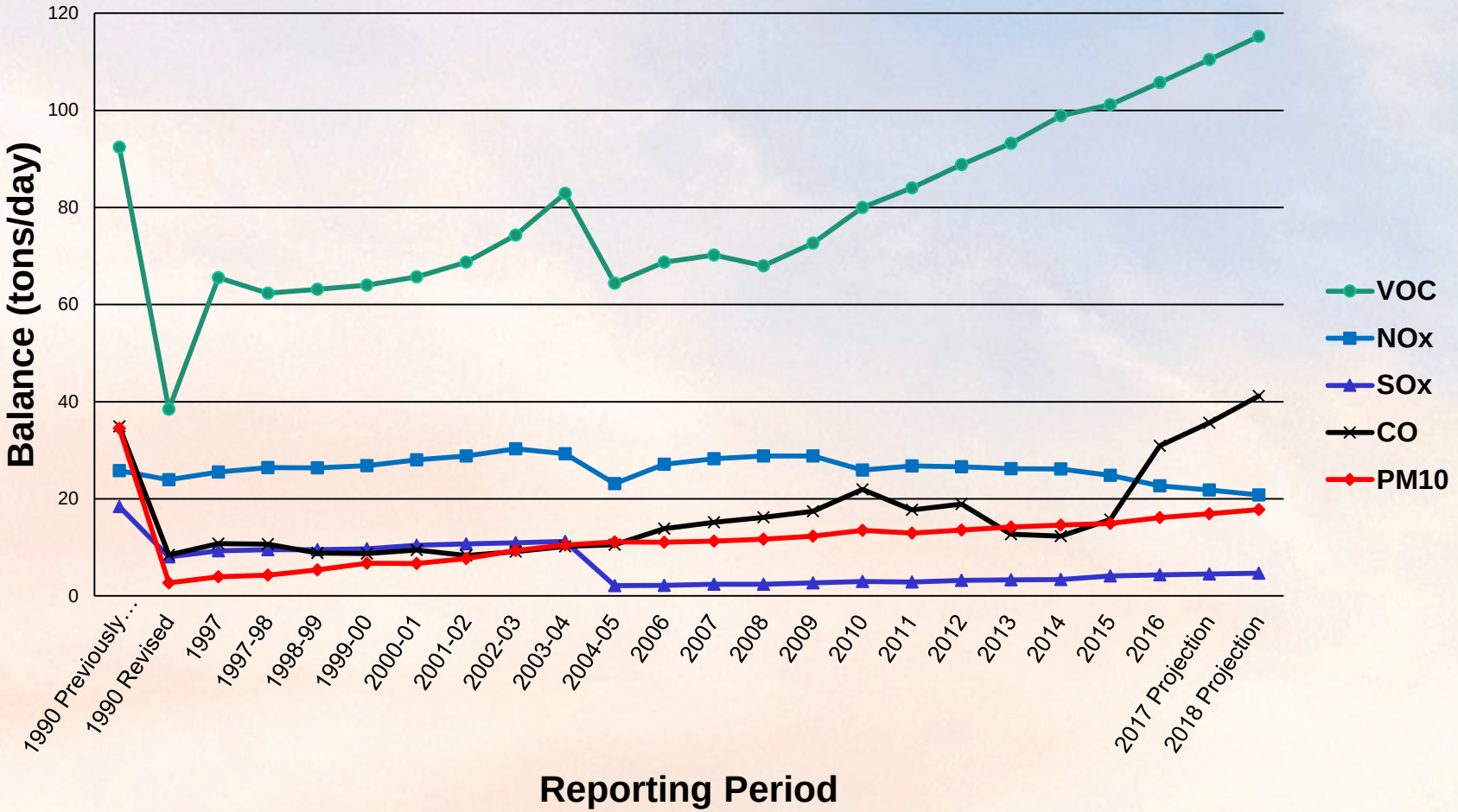
SCAQMD's Projected Federal NSR Offset Accounts CY 2017

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2016 Final Ending Balance (tons/day)	**105.76**	**22.70**	**4.32**	**30.92**	**16.15**
CY 2017 Total Projected Credits (tons/day)	5.19	0.88	0.19	7.03	0.82
CY 2017 Total Projected Debits (tons/day)	-0.35	-0.20	0.00	-2.09	-0.02
CY 2017 Total Projected Discount of Credits for Surplus Adjustment (tons/day)	-0.12	-1.58	0.00	-0.22	0.00
CY 2017 Projected Ending Balance (tons/day)	**110.48**	**21.80**	**4.51**	**35.64**	**16.95**

SCAQMD's Projected Federal NSR Offset Accounts CY 2018

DESCRIPTION	VOC	NOx	SOx	CO	PM10
CY 2017 Projected Ending Balance (tons/day)	**110.48**	**21.80**	**4.51**	**35.64**	**16.95**
CY 2018 Total Projected Credits (tons/day)	5.16	0.83	0.16	8.07	0.85
CY 2018 Total Projected Debits (tons/day)	-0.39	-0.14	0.00	-2.50	-0.02
CY 2018 Total Projected Discount of Credits for Surplus Adjustment (tons/day)	-0.03	-1.68	0.00	-0.05	0.00
CY 2018 Projected Ending Balance (tons/day)	**115.22**	**20.81**	**4.67**	**41.16**	**17.78**

SCAQMD's Federal Offset Account Balances (1990 – 2016, and 2017-2018 Projections)



Conclusions

- The Final Determination of Equivalency for CY 2016 shows SCAQMD's NSR program continued to be at least equivalent to the federal NSR offset requirements
- For CYs 2017 and 2018 it is also projected that SCAQMD's NSR program will continue to be at least equivalent to the federal NSR offset requirements
- The Cumulative Net Emission Increases for CY 2016 remained below the thresholds identified in Table B of Rule 1315(g)(4)
- Next Preliminary Determination of Equivalency for CY 2017 will be presented to the Board in February 2019

AGENDA NO. 30

Back to Agenda

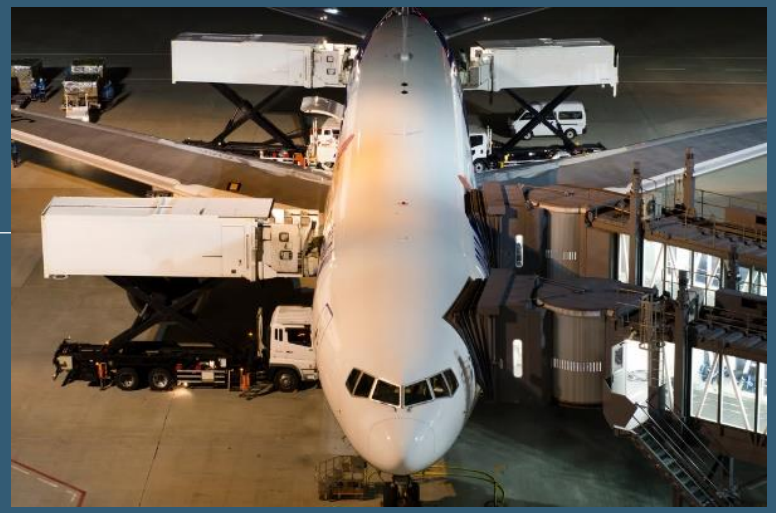
Update on Facility-Based Mobile Source Measures

SEPTEMBER 7, 2018

Summary of May 2018 Board Direction

Sector	Direction
Airports	Pursue MOUs to implement airport clean air action plans
Ports	Pursue MOUs to implement specific CAAP measures; pursue introduction of cleaner vessels
New/Redevelopment	Continue to work with stakeholders to develop rule concepts and preliminary costs/benefits
Warehouses	Develop rule concept; conduct economic impacts study to inform rule concept
Rail yards	Pursue rulemaking; explore potential for new agreements/MOUs beyond the 1998 and 2005 agreements

AIRPORTS – Board Direction



MOU approach in lieu of ISR

- Develop separate MOU with each commercial airport
  - Late 2019 timeframe
- MOUs to be based on clean air plans developed by each airport
- Regular progress updates to the Governing Board
  - Airports commitment to develop clean air plans
- If MOU process not successful, staff to recommend regulatory approach subject to Governing Board approval

AIRPORTS – Status Update

- Initiated discussions with the airports
  - All airports have so far expressed their commitment to developing own clean air plans and MOU approach
  - Draft MOU framework prepared by AQMD staff submitted to the airports
  - Received initial verbal comments/concerns on the draft MOU framework
- Staff has offered assistance to airports in developing their clean air plans
  - Inventory Baseline/Forecast
  - Evaluation of control strategies
- Follow-up meetings with airports being planned for October on the airports plan development and MOU framework

PORTS – Board Direction

MOU approach in lieu of an ISR

- MOU between AQMD and ports on specific CAAP measures in 2019 timeframe (e.g., Clean Truck Program)
- Regular progress updates to the Governing Board
- Exploring new incentive strategies to address emissions from ocean-going vessels
- If MOU process not successful, staff to seek direction from the Governing Board on potential regulatory/voluntary approaches

PORTS – Status Update

- Initiated discussions with the Ports and provided potential draft MOU framework
  - Prospective SIP creditable CAAP measures meeting EPA's Integrity Elements
  - Ports to commit to performance targets for CAAP measures that are:
    - Reasonable and achievable
    - Technically feasible and cost-effective
  - Maintain ability to use incentive funding
  - Public process for MOU development
  - AQMD to commit to backstop any potential emission reduction shortfall
  - Recordkeeping/Reporting for tracking progress

PORTS – Status Update (cont'd)

- Ports staff have expressed concern about the MOU approach and submitted letter raising concerns about the MOU framework
  - Recommending an interagency process (U.S. EPA, CARB, AQMD, Ports)
  - Proposing other options for SIP credits (retrospective credits)
    - Not providing future SIP creditable reductions
  - Expressing concern about quantifying potential emission benefits for CAAP measures
  - Not willing to commit to quantifiable outcomes for CAAP measures (e.g., emission reductions or number of truck replacements)
- Staff to meet with ports to try to reach resolution
  - Update will be provided to Mobile Source Committee

NEW DEVELOPMENT & REDEVELOPMENT – Board Direction

- On May 4, 2018, the Board stated concerns about the following:
  - Scope of proposed emission reduction strategies
  - Type of projects affected (e.g. affordable housing projects)
  - Effects on real-estate prices
  - Job and economic impacts
- The Board directed staff to continue to work with the Working Group on developing emission reduction strategies

NEW DEVELOPMENT & REDEVELOPMENT – Status Update

- WG members requested a study to address the Board's concerns
  - Topics of interest:
    - Scope of the program
    - Opportunities for incentives
    - Affordable housing impacts
    - Green infrastructure
    - Local economic impacts
- Next steps:
  - Pursue a study to address the Board's concern through an RFP process
  - Provide the Mobile Source Committee with quarterly progress reports
  - Return to the Board in one year for an update on the Working Group's progress

WAREHOUSE DISTRIBUTION CENTERS – Board Direction

- Begin Indirect Source rulemaking activities
  - Interim Analyses
    - Anticipated Emission Reductions
    - Cost of Compliance
    - Economic Impact Study + 3rd party review
    - Industrial Real Estate Market Impact
    - Technological Availability
- Continue exploring non-regulatory options
  - New CEQA Air Quality Mitigation Fund
  - Warehouse Guidance Document (with CARB)
  - Green Delivery (e.g., opt-in fee to fund cleaner fleet)

WAREHOUSE DISTRIBUTION CENTERS – Status Update

Working Group Meetings

- *August 1st, 2018* Discussed initial concepts of a potential ISR, coupled with voluntary fleet certification
- *August 23rd, 2018* Subgroup meeting on initial concept of a CEQA Air Quality Impact Mitigation Fund for new warehousing projects

Outreach and Research

- Ongoing discussion with industry, community, and other stakeholders
  - Facility and community site visits
  - Gather feedback on initial concepts
- ***Research different business models for warehouses and truck fleets***

Warehouse Econ. Study RFP

- Board-directed Economic Impact Study
  - Cost of ISR compliance for warehouses/fleets
  - Impact on regional freight operations (e.g., cargo diversion)
  - Impact on industrial real estate market
  - Informed by ongoing ICF Study of ZE/NZE truck deployment costs and benefits
- RFP on September Board agenda

RAIL YARDS – Board Direction

- Begin Indirect Source Rulemaking
  - Any ISR approved by the Board would require harmonization with federal regulatory requirements before the rule is enforceable
- Continue to explore possible additional agreements beyond the existing 1998 and 2005 MOUs

RAIL YARDS – Status Update

Working Group Meetings

- Upcoming working group meeting - tentatively planning for early Fall

Outreach and Research

- Engaging industry, community, and other stakeholders
  - Facility and community site visits
  - Keep abreast of CARB's rulemaking activities
- Continue to assess facility-specific emissions inventories

Voluntary Measures

- Some initial concepts for warehouse may be applicable for rail yards
  - Voluntary fleet certification to facilitate reducing emissions from trucks visiting rail yards
- Exploring other potential measures

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 31

PROPOSAL: Certify Final Environmental Assessment and Amend Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

SYNOPSIS: Rule 1469 currently establishes requirements to control hexavalent chromium from electroplating and chromic acid anodizing operations. PAR 1469 proposes new requirements to control hexavalent chromium-containing tanks that are currently not regulated. In addition, PAR 1469 establishes requirements for building enclosures, housekeeping and best management practices, periodic source testing, and parameter monitoring of pollution control equipment. PAR 1469 includes provisions for a revised chemical fume suppressant certification process that further considers toxicity and exposure, and provisions to encourage the elimination of hexavalent chromium in Rule 1469 processes. Additional proposed amendments are incorporated to align Rule 1469 with the U.S. EPA National Emission Standards for Hazardous Air Pollutants for Chromium Electroplating. This action is to adopt the Resolution: 1) Certifying the Final Environmental Assessment for Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations; and 2) Amending Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations.

COMMITTEE: Stationary Source, November 17, 2017, February 16, 2018, March 16, 2018, April 20, 2018, and July 20, 2018

RECOMMENDED ACTIONS:
Adopt the attached Resolution:

1. Certifying the Final Environmental Assessment for Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations; and

2. Amending Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations.

Wayne Nastri
Executive Officer

SN:JW:DG:NF

Background

Rule 1169 – Hexavalent Chromium – Chrome Plating and Chromic Acid Anodizing was adopted on June 3, 1988 and applies to chromium electroplating (hard and decorative) and chromic acid anodizing processes. On October 9, 1998, Rule 1169 was repealed and provisions were incorporated into Rule 1469. Rule 1469 establishes emission standards and housekeeping provisions for hexavalent chromium electroplating and chromic acid anodizing operations and implements the U.S. EPA's National Emission Standards for Hazardous Air Pollutants for Chromium Emissions (NESHAP) from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (Chrome Plating) and CARB's Airborne Toxic Control Measure (ATCM) for Chromium Plating and Chromic Acid Anodizing Facilities.

Staff initiated rulemaking activities for Proposed Amended Rule 1469 following the discovery of uncontrolled heated sodium dichromate seal tanks that were part of the chromic acid anodizing process that contributed to high hexavalent chromium levels at ambient monitors near three chromic acid anodizing facilities in Newport Beach, Paramount, and Long Beach. In addition, all three facilities had cross-draft issues that allowed emissions to flow out of the buildings housing these tanks resulting in levels of hexavalent chromium as high as 26 ng/m^3 at the monitor. Based on the Multiple Air Toxics Exposure Study IV, the average background level of hexavalent chromium (a potent known human carcinogen) is 0.06 ng/m^3 in the South Coast Air Basin.

Proposed Amended Rule 1469 has been developed to address heated sodium dichromate seal tanks and other tanks with similar operating properties that were not previously known to be sources of hexavalent chromium emissions. In addition, Proposed Amended Rule 1469 will establish additional requirements such as building enclosures, enhanced housekeeping provisions, and best management practices to minimize the release of fugitive hexavalent chromium emissions that can impact communities around facilities that are conducting chromium plating and anodizing operations. Proposed Amended Rule 1469 also incorporates the changes made to the U.S. EPA's Chrome Plating NESHAP amended in September 2012.

Proposal

Proposed Amended Rule 1469 establishes requirements for Tier I, II, and III Hexavalent Chromium Tanks. Tier III Hexavalent Chromium Tanks have the highest potential for hexavalent chromium emissions based on their temperature, hexavalent chromium concentration, and other operating parameters. Owners and operators are required to meet a specified emission standard which will require installation of add-on pollution controls for about 100 Tier III Hexavalent Chromium Tanks. Facilities will be required to operate Tier II and Tier III Hexavalent Chromium Tanks within a building enclosure that meets specific requirements, monitor specific parameters of air pollution controls, and to conduct periodic source tests of add-on air pollution control technologies every 60 months for facilities permitted for more than 1,000,000 ampere-hours, and every 84 months for facilities permitted for less than or equal to 1,000,000 ampere-hours. Proposed Amended Rule 1469 also requires enhanced housekeeping measures and best management practices to minimize fugitive dust emissions of hexavalent chromium.

During the rulemaking process, concerns were raised that the recently certified non-perfluorooctane sulfonate (PFOS) chemical fume suppressants contain polyfluoroalkyl substances (PFAS) which have similar toxicity issues such as being bio-accumulative. Currently under the existing Rule 1469, only the smallest facilities are allowed to use chemical fume suppressants as the only control method as they are a low-cost option to reduce hexavalent chromium emissions by approximately 99 percent. Staff will be working with CARB to re-evaluate chemical fume suppressants taking into account the amount of the chemical fume suppressants that are emitted during plating and anodizing operations as well as the potential health effects. If it is determined that chemical fume suppressants cannot be certified, affected facilities will be required to install an alternative air pollution control technique such as add-on pollution controls by July 1, 2021. Proposed Amended Rule 1469 includes a provision that allows the SCAQMD to identify and approve an alternative technology that would be equally effective as the emission limit required for chemical fume suppressants. This provision was added to Proposed Amended Rule 1469 to allow for the development of a lower cost option for smaller plating facilities in the event chemical fume suppressants are not certified.

Proposed Amended Rule 1469 also includes a conditional provision for installation of a permanent total enclosure, provisions to encourage phasing out hexavalent chromium, and additional requirements for facilities near schools and sensitive receptors. Other provisions were incorporated to reflect changes in the U.S. EPA's Chrome Plating NESHAP as well as provisions to improve the clarity and implementation of the rule. Obsolete provisions that were no longer applicable were deleted.

Public Process

Proposed Amended Rule 1469 was developed through an extensive public process. A working group was formed to provide the public and stakeholders an opportunity to discuss important details about the proposed amendments to the rule and provide staff with input during the rule development process. The working group was composed of a variety of stakeholders including representatives from industry, consultants, environmental groups, community groups, and public agency representatives. During the rulemaking process, 13 working group meetings were held: March 23, 2017, May 18, 2017, June 29, 2017, August 2, 2017, August 31, 2017, September 20, 2017, in Compton on the evening of October 26, 2017, in Compton on the evening of November 29, 2017, January 4, 2018, February 6, 2018, February 27, 2018, April 4, 2018, and July 17, 2018. Working group meetings for this rulemaking were well attended with approximately 100 people in attendance per meeting and about 40 people participating via teleconference. In addition, three Public Workshops were held: November 1, 2017, December 7, 2017, and February 8, 2018. Two additional evening public informational meetings were also held on August 28, 2018 and August 29, 2018.

Key Issues

Through the rulemaking process staff has worked with stakeholders to resolve a number of issues while ensuring that Proposed Amended Rule 1469 addresses the installation of pollution controls for unregulated high-emitting hexavalent chromium tanks, the need for basic requirements for building enclosures, and the periodic monitoring of pollution controls. Throughout the rulemaking process, issues regarding non-hexavalent chromium alternatives were discussed. Two remaining key issues are (1) the use of non-PFOS chemical fume suppressants and (2) the economic impact of the rule.

Non-PFOS Chemical Fume Suppressants

Some environmental and community representatives have commented that non-PFOS chemical fume suppressants should be banned due to the potential health impacts. In addition, some industry stakeholders have commented that if non-PFOS chemical fume suppressants cannot be certified, installation of pollution controls may be too costly for smaller facilities and result in facility closures.

In response to environmental and community concerns, Proposed Amended Rule 1469 incorporates a schedule to re-evaluate the certification of chemical fume suppressants and if they are not certified, facilities would be required to install pollution controls by July 1, 2021. Through the rule development process, this schedule has been compressed. A compliance date of July 1, 2021 is the earliest timeframe to allow sufficient time for staff to conduct emissions testing and certification, and allow facilities to design, permit, and install pollution controls, if necessary.

The Metal Finishing Association of Southern California has commented that if chemical fume suppressants are not certified, the cost to install air pollution controls would significantly impact the smallest plating facilities and potentially result in facility closures. In response to these concerns, a provision has been added that if chemical fume suppressants are not certified, the Executive Officer in consultation with CARB may approve an alternative to a chemical fume suppressant that is as equally effective as a certified chemical fume suppressant. The objective of this provision is to provide a lower cost solution where the SCAQMD would conduct the emissions testing. Also, similar to the use of certified chemical fume suppressants, no further emissions testing would be required if the operator complies with the conditions approved for the alternative. Additionally, staff has committed to seeking funding sources to help facilities with the installation of add-on air pollution control devices or transition to non-toxic alternatives, where feasible. Staff will also continue to participate in CARB's rulemaking to amend the ATCM for chromium plating and anodizing and to support a statewide effort to phase-out the use of hexavalent chromium in chromium plating and chromic acid anodizing.

Economic Impacts of Proposed Amended Rule 1469

Throughout the rule development process, industry stakeholders commented that the costs to comply with the proposed rule amendments are significant. Staff worked with industry stakeholders and made modifications throughout the rule development process to minimize facility costs while maintaining the key provisions to control hexavalent chromium emissions from high emitting tanks. Provisions such as reducing the frequency of periodic source tests, increasing the percentage of allowable openings for the building enclosure, and adding an intermediate Tier II tank that can use lower cost control techniques to reduce hexavalent chromium emissions helped to lower the compliance costs. As discussed in the Socioeconomic Impact Assessment, the majority of costs are associated with the installation and operation of add-on air pollution control devices for uncontrolled sources of hexavalent chromium. One of the areas of greatest concern is the potential cost to small decorative plating and anodizing facilities that are currently using chemical fume suppressants. As discussed above, if the chemical fume suppressants are not certified, staff is committed to finding low-cost alternatives and funding for these smaller facilities.

AQMP and Legal Mandates

The SCAQMD is required to adopt an Air Quality Management Plan (AQMP) demonstrating compliance with all federal regulations and standards. The SCAQMD is required to adopt rules and regulations that carry out the objectives of the AQMP. Proposed Amended Rule 1469 is not a control measure of the 2016 AQMP but is needed to reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing facilities. Proposed Amended Rule 1469 will continue to implement requirements of the CARB ATCM Health and Safety Code Section 39666(d) and U.S. EPA's NESHAP Clean Air Act Section 112 (42 U.S.C. § 7412).

California Environmental Quality Act

Proposed Amended Rule 1469 is considered to be a "project" as defined by the California Environmental Quality Act (CEQA). CEQA requires the evaluation of potentially adverse environmental impacts of proposed projects and the application of feasible methods to reduce or avoid significant adverse environmental impacts of these projects. Proposed Amended Rule 1469 is expected to create an environmental benefit by reducing emissions of toxic air contaminants. The activities that site operators may undertake to comply with Proposed Amended Rule 1469 may also create secondary adverse environmental impacts, but not at a significant level. Thus, pursuant to CEQA Guidelines Section 15252 and SCAQMD Rule 110, the SCAQMD has prepared an Environmental Assessment (EA) with less than significant impacts for Proposed Amended Rule 1469. Since the environmental analysis in the Draft EA concluded that Proposed Amended Rule 1469 would not generate any significant adverse environmental impacts, no alternatives or mitigation measures are required.

The Draft EA was released for a 32-day public review and comment period from February 16, 2018 to March 20, 2018. Two comment letters were received from the public regarding the analysis in the Draft EA, and responses to the comments have been prepared. The comment letters and responses have been included in the Final EA (see Attachment I). Since the release of the Draft EA, modifications were made to the proposed project in response to verbal and written comments. SCAQMD staff has reviewed the modifications to the proposed project and concluded that none of the modifications constitute significant new information, or a substantial increase in the severity of an environmental impact, or provide new information of substantial importance regarding the Draft EA. In addition, revisions to Proposed Amended Rule 1469 in response to verbal and written comments would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft EA pursuant to CEQA Guidelines Section 15073.5 or 15088.5. Therefore, the Draft EA has been revised to reflect the aforementioned modifications and to include the comment letters and responses to comments such that it is now a Final EA (see Attachment I). Prior to making a decision on Proposed Amended Rule 1469, the Board must review and certify the Final EA as providing adequate information on the potential adverse environmental impacts of the proposed project.

Socioeconomic Assessment

Proposed Amended Rule 1469 would affect 115 facilities that either conduct decorative or hard chromium electroplating or chromic acid anodizing within SCAQMD's jurisdiction. Two cost scenarios were analyzed; a high cost scenario, which represents the highest expected cost of compliance, and a low cost scenario, which represents the costs associated with a more likely scenario. The affected facilities would incur an average annual aggregate cost totaling $2.65 to $4.26 million to comply with proposed requirements within the low and high cost scenarios, respectively. The majority of the compliance costs are capital, installation, and operating and maintenance costs of air

pollution control systems. The average annual cost per facility is estimated at $22,000 to $36,000 (for the low and high cost scenarios, respectively).

Examination of facility-specific annual cost/revenue impacts indicates an average annual compliance cost impact of 1.8 percent to 3.3 percent of annual revenue for all affected facilities. Staff worked with a contractor hired by the Metal Finishing Association of Southern California to develop the cost assumptions. The facility category which bears the greatest impact is small decorative plating facilities, which has a range of average cost impacts of 3.4 percent to 7.4 percent of revenue. Many of these facilities could be significantly impacted by Proposed Amended Rule 1469 if chemical fume suppressants are not certified and they are required to install air pollution control systems. SCAQMD may approve an alternative technology that would be equally effective as the emission limit required for chemical fume suppressants, and the provision would mitigate costs for the small facilities. Such an alternative may include a combination of mechanical fume suppressants and other measures.

Proposed Amended Rule 1469 is expected to result in an average of 37 to 63 to jobs forgone annually, between 2019 and 2035 using the low and high cost scenarios, respectively. The projected jobs forgone represent about 0.001 percent of the total employment in the four-county region.

Implementation and Resource Impact
Existing SCAQMD resources will be used to implement Proposed Amended Rule 1469.

Attachments
A. Summary of Proposal
B. Key Issues and Responses
C. Rule Development Process
D. Key Contacts List
E. Resolution
F. Proposed Amended Rule 1469 Rule Language
G. Proposed Amended Rule 1469 Staff Report
H. Final Socioeconomic Assessment
I. Final Environmental Assessment
J. Board Meeting Presentation

ATTACHMENT A

SUMMARY OF PROPOSAL

Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations
Emission Standards for Tier III Hexavalent Chromium Tanks ▪ Maintain existing hexavalent chromium emission standards for plating and anodizing tanks ▪ New emission limits for Tier III Hexavalent Chromium Tanks (highest emitting tanks): o Same emission limits for electrolytic process tanks; o 0.20 mg/hr if maximum exhaust rate is 5,000 cfm or less; or o 0.004 mg/hr-ft^2 if maximum exhaust rate is greater than 5,000 cfm Periodic Source Testing Requirements ▪ Requires source testing every 60 months (5 years) if total facility permitted throughput is greater than 1,000,000 ampere-hours annually ▪ Requires source testing every 84 months (7 years) if total facility permitted throughput is less than or equal to 1,000,000 ampere-hours annually ▪ Allows use of an emissions screening test consisting of a one-run source test Building Enclosure Requirements ▪ Requires that Tier II and III Hexavalent Chromium Tanks be operated in a building enclosure ▪ Limits combined area for all enclosure openings to 3.5% of the building envelope ▪ Requirements to minimize cross-drafts, openings near sensitive receptors, and roof openings Conditional Requirements for Permanent Total Enclosure ▪ Trigger to install a permanent total enclosure based on more than one non-passing source test or failure to shut down a tank after a failed smoke test or failed slot velocity test ▪ Trigger is more stringent for facilities within 1,000 feet of a sensitive receptor Housekeeping Requirements ▪ Added housekeeping requirements for buffing, grinding, or polishing areas and provisions when cutting into roof surfaces ▪ Provision to remove fabric or fibrous flooring material that cannot be cleaned Best Management Practices ▪ Incorporates new best management practices for spray rinsing parts or equipment, tank labeling, provisions for buffing, grinding and polishing, and additional clarifications Certification of Wetting Agent Chemical Fume Suppressants ▪ Incorporates provisions from U.S. EPA's NESHAP which bans PFOS from chemical fume suppressants ▪ Incorporates a schedule to re-evaluate certification of chemical fume suppressants ▪ If chemical fume suppressants are not certified, operators must install pollution controls by July 1, 2021 and are allowed to use chemical fume suppressant to July 1, 2022 if phasing out use of hexavalent chromium o Incorporates provision for staff to work with CARB to approve a technology that is equally effective as chemical fume suppressants, if chemical fume suppressants are not certified Parameter Monitoring ▪ Monitor the operation of an add-on air pollution control device including the collection slot velocities and push air manifold pressure conditions ▪ Additional parameter monitoring required for air pollution control device equipped with HEPA Other Provisions ▪ Provisions to encourage phase-out of hexavalent chromium ▪ Additional provisions for inspection and maintenance

- Clarifies and adds recordkeeping requirements for add-on air pollution control devices
- Remove exemption for process tanks associated with plating or anodizing processes
- Includes process for one year extension to install pollution controls of phase-out of hexavalent chromium if reasons outside of the control of the facility

ATTACHMENT B
KEY ISSUES AND RESPONSES

Proposed Amended Rule (PAR) 1469 ─ Hexavalent Chromium Emissions From Chromium Electroplating And Chromic Acid Anodizing Operations

Use of non-PFOS chemical fume suppressants: Some environmental and community representatives have commented that the non-PFOS chemical fume suppressants should be banned due to the potential health impacts. Additionally, some industry stakeholders have commented that if non-PFOS chemical fume suppressants cannot be certified, installation of pollution controls may be too costly for the smaller facilities and will result in facility closures.

- A schedule has been incorporated into the rule for staff to re-evaluate the certification of chemical fume suppressants and if not certified, facilities would be required to install air pollution controls by July 1, 2021. This date provides the time necessary to conduct emissions testing, certify wetting agent chemical fume suppressants, and allow facilities to design, permit, and install air pollution controls, if needed.
- If a chemical fume suppressant is not certified, the Executive Officer in consultation with CARB may approve an alternative to a chemical fume suppressant that is as equally effective as a certified chemical fume suppressant.
- The alternative to a chemical fume suppressant would provide a lower cost solution since the SCAQMD would identify the control options and conduct the emissions testing. Also, no further emissions testing would be required if the operator complies with the conditions for the alternative.

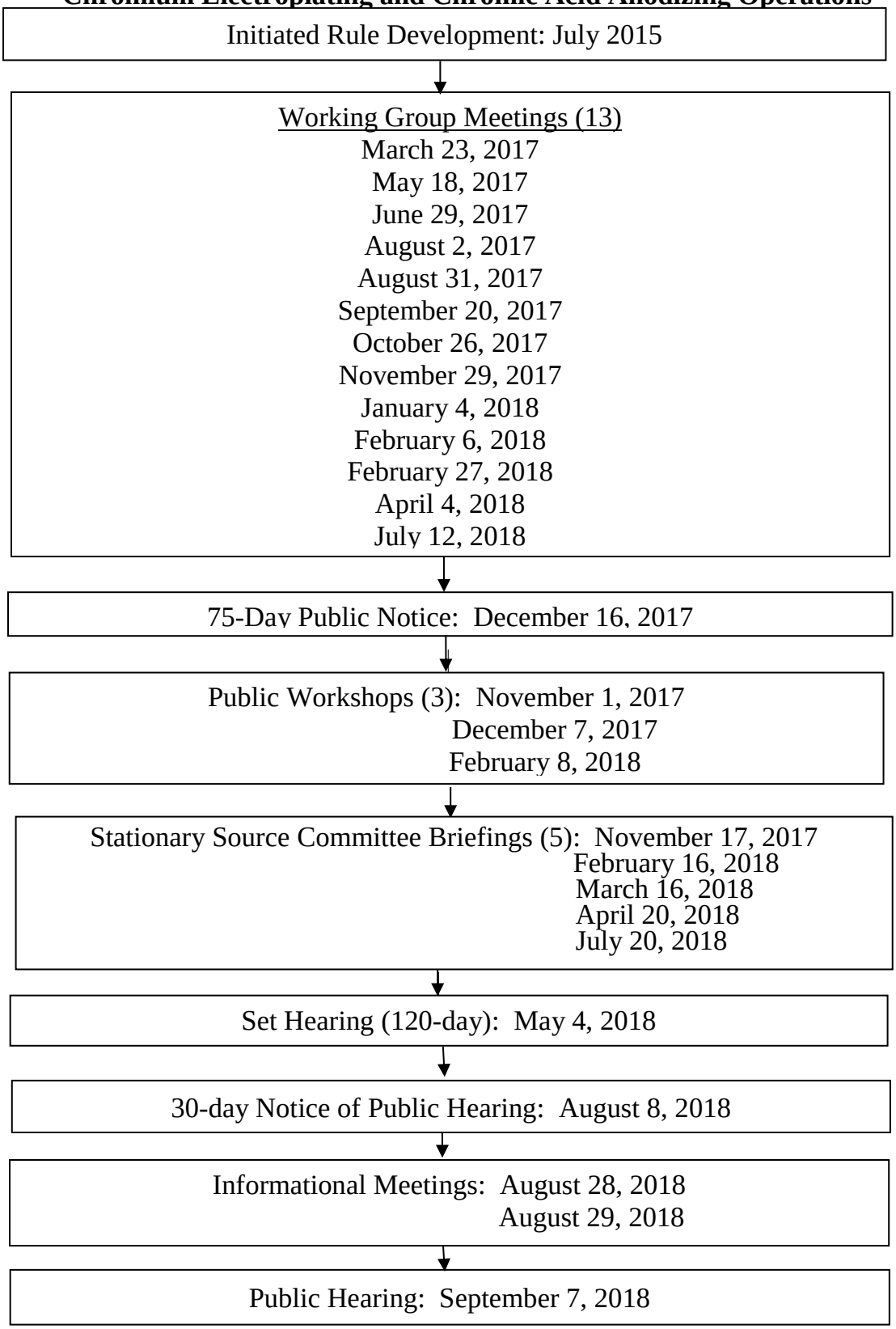
Economic impact of implementation of Proposed Amended Rule 1469: Some industry stakeholders have commented that the cost to comply with the rule is substantial and would result in facility closures with businesses leaving the South Coast Air Basin.

- As identified in the Socioeconomic Impact Assessment, the majority of costs are associated with the installation and operation of add-on air pollution control devices for previously uncontrolled tanks that were identified as sources of hexavalent chromium emissions. The Metal Finishing Association of Southern California has commented that pollution controls are needed for Tier III tanks.
- Throughout the rulemaking process, staff worked with stakeholders to reduce the cost of Proposed Amended Rule 1469 by extending the schedule for source testing, including Tier II Tanks which do not require pollution controls but can use lower cost techniques to reduce hexavalent chromium emissions, and modifications to building enclosure requirements, to name a few.
- Owners or operators of facilities are not limited to installing add-on air pollution control devices as they can either reduce or eliminate hexavalent chromium use from the subject tank. By reducing the concentration of hexavalent chromium, the tank may be classified as Tier II Hexavalent Chromium Tank instead of Tier III Hexavalent Chromium Tank. Tier II Hexavalent Chromium Tanks have fewer requirements and do not need an add-on air pollution control device.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amendment to Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations



Thirty-eight (38) months spent in rule development.
Three (3) Public Workshops.
Thirteen (13) Working Group Meetings including two (2) evening Working Group Meetings in Compton.

ATTACHMENT D
KEY CONTACTS LIST

AAA Plating & Inspection

Accurate Plating

Ace Clearwater

Aircraft X-Ray Labs Inc.

Alco Plating

All Metals Processing

Almega Environmental

Alta Environmental

Anaplex Corporation

Atotech USA Inc.

Aviation Repair Solution

Barry Avenue Plating

Best Air Controls

The Boeing Company

Bowman Plating Co

California Air Resources Board

California Communities Against Toxics

California Electroplating Inc.

California OSHA

California Safe Schools

California Small Business Alliance

City of Paramount

Chromal Plating Company

CNC Environmental

Coast Plating

Department of Public Works Bureau of Sanitation

Desmond & Desmond

Dixon Hard Chrome

Ducommun

Dynamic Plating

Ecotek

Electrolizing

ECM

E.M.E.

Environomics Embee Processing

Gardena Specialized Plating

General/Brite Plating Company

Hawker Pacific Aerospace

Hixson Metal Finishing

Hightower Plating

Hunter Chemical LLC

K&L Anodizing

MacDermid Enthone

Metal Finishing Association of Southern California

Metal Finishing Marketers

Metal Surfaces Inc.

Michelle Lewis

Montrose

Moore Compliance & Training Inc.

Morrell’s Electroplating

Omni Metal

OC Plating

Office of Environmental Health Hazard Assessment

Pentrate Metal Processing

Policy Group

Precision Anodizing and Plating

Products Engineering Corporation

Quaker City Plating

Radcliff & Saiki LLP

Radtech

Size Control Plating

Southern California Air Quality Alliance

Southland Environmental

Sunvair

Teachers Association of Paramount

Tool & Jig

Tox Strategies

Triumph Processing

Trinity Consultant

Universal Metal Plating

Valley Plating

Verne’s Chrome

ATTACHMENT E

RESOLUTION NO. 18-_____

A Resolution of the Governing Board of the South Coast Air Quality Management District (SCAQMD) certifying the Final Environmental Assessment (EA) for Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations.

A Resolution of the SCAQMD Governing Board Adopting Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations.

WHEREAS, the SCAQMD Governing Board finds and determines with certainty that Proposed Amended Rule 1469 is considered a "project" as defined by the California Environmental Quality Act (CEQA); and

WHEREAS, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and has conducted a CEQA review and analysis of Proposed Amended Rule 1469 pursuant to such program (SCAQMD Rule 110); and

WHEREAS, the SCAQMD staff has prepared a Draft EA pursuant to its certified regulatory program and CEQA Guidelines Sections 15251, 15252, and 15070, setting forth the potential environmental consequences of Proposed Amended Rule 1469 and determined that the proposed project would not have the potential to generate significant adverse environmental impacts; and

WHEREAS, the Draft EA was circulated for a 32-day public review and comment period, from February 16, 2018 to March 20, 2018, and two comment letters were received; and

WHEREAS, the Draft EA has been revised to include comments received on the Draft EA and the responses, so that it is now a Final EA; and

WHEREAS, it is necessary that the SCAQMD Governing Board review the Final EA prior to its certification, to determine that it provides adequate information on the potential adverse environmental impacts that may occur as a result of adopting Proposed Amended Rule 1469, including responses to comments received relative to the Draft EA; and

WHEREAS, pursuant to CEQA Guidelines Section 15252 (a)(2)(B), since no significant adverse impacts were identified, no alternatives or mitigation measures are required and thus, a Mitigation Monitoring and Reporting Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097, has not been prepared; and

WHEREAS, findings pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15091, and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, were not prepared because the analysis shows that Proposed Amended Rule 1469 would not have a significant adverse effect on the environment, and thus, are not required; and

WHEREAS, the SCAQMD Governing Board voting to adopt Proposed Amended Rule 1469 has reviewed and considered the information contained in the Final EA and other supporting documentation, prior to its certification, and has determined that the Final EA, including responses to comments, has been completed in compliance with CEQA; and

WHEREAS, Proposed Amended Rule 1469 and supporting documentation, including but not limited to, the Final EA, the Final Staff Report, and the September 7, 2018 Board Letter, were presented to the SCAQMD Governing Board and the SCAQMD Governing Board has reviewed and considered the entirety of this information, and has taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, the Final EA reflects the independent judgment of the SCAQMD; and

WHEREAS, the SCAQMD Governing Board finds and determines that all changes made in the Final EA after the public notice of availability of the Draft EA, were not substantial revisions and do not constitute significant new information within the meaning of CEQA Guidelines Section 15073.5 or 15088.5, because no new significant effects were identified, and no new project conditions or mitigation measures were added, and all changes merely clarify, amplify, or make insignificant modifications to the Draft EA, and recirculation is therefore not required; and

WHEREAS, the SCAQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (codified as Section 30.5(4)(D)(i) of the Administrative Code), that the modifications which have been made to Proposed Amended Rule 1469 since the notice of public hearing was published add clarity, restore an inadvertently deleted final deadline, specificity regarding the deadline for installation of controls, provide

compliance flexibility by allowing a one-time extension to meet the requirements of subparagraph (h)(4)(C) and paragraph (l)(5) provided specific conditions are met, while meeting the same air quality objective and are not so substantial as to significantly affect the meaning of the proposed amended rule within the meaning of Health and Safety Code 40726 because: (a) the changes do not impact emission reductions as the rule does not take credit for or quantify emission reductions, (b) the changes do not affect the number or type of sources regulated by the rule, (c) the changes are consistent with the information contained in the notice of public hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because the effects of Proposed Amended Rule 1469 do not cause significant impacts and therefore, alternatives are not required; and

WHEREAS, Proposed Amended Rule 1469 is not a control measure in the 2012 Air Quality Management Plan (AQMP) and was not ranked by cost-effectiveness relative to other AQMP control measures in the 2016 AQMP, and furthermore, pursuant to Health and Safety Code Section 40910, cost-effectiveness in terms of dollars per ton of pollutant reduced is only applicable to rules regulating ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide and does not apply to toxic air contaminants; and

WHEREAS, Proposed Rule 1469 reduces hexavalent chromium emissions which is a toxic air contaminant and will not be submitted for inclusion into the State Implementation Plan; and

WHEREAS, the SCAQMD staff conducted public workshops regarding Proposed Amended Rule 1469 on November 1, 2017, December 7, 2017, and February 8, 2018; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the Final Staff Report; and

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40440, 40441, 40702, 41508, and 41700; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1469 is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1469, as proposed to be adopted, is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1469, as proposed to be adopted, implements the state Air Toxics Control Measure 17 CCR 93102 and federal National Emission Standards for Hazardous Air Pollutants 40 CFR 63.340 for chromium plating and anodizing facilities and imposes the same or more stringent requirements as the existing state or federal regulations, and the proposed project is necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD; and

WHEREAS, the SCAQMD Governing Board has determined that a need exists to amend Rule 1469 to alleviate a problem by establishing emission limits to address tanks containing hexavalent chromium that operate under conditions that previously were not known to be significant sources of hexavalent chromium emissions and to establish additional provisions that minimize the release of hexavalent chromium emissions from electroplating and chromic acid anodizing operations and associated processes; and

WHEREAS, the SCAQMD Governing Board, in adopting this regulation, references the following statutes which the SCAQMD hereby implements, interprets or makes specific: the provisions of the Health and Safety Code Section 41700 (nuisance) and Federal Clean Air Act Section 112 (Hazardous Air Pollutants) and Section 116 (Retention of State Authority); and

WHEREAS, Health and Safety Code Section 40727.2 requires the SCAQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and that the SCAQMD's comparative analysis of Proposed Amended Rule 1469 is included in the Final Staff Report; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment of Proposed Amended Rule 1469 is consistent with the March 17, 1989 Governing Board Socioeconomic Resolutions for rule adoption; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1469 will result in increased costs to chromium electroplating and chromic acid anodizing facilities yet are considered to be reasonable, with a total annualized cost as specified in the Socioeconomic Impact Assessment; and

WHEREAS, the SCAQMD Governing Board has considered the Socioeconomic Impact Assessment and has made a good faith effort to minimize such impacts; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment is consistent with the provisions of the Health and Safety Code Sections 40440.8, 40728.5, 40920.6; and

WHEREAS, the SCAQMD Governing Board specifies the Manager overseeing the rule development for Proposed Amended Rule 1469 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed project is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

WHEREAS, a public hearing has been properly noticed in accordance with all provisions of Health and Safety Code Section 40725; and

WHEREAS, the SCAQMD Governing Board has held a public hearing in accordance with all provisions of law.

NOW, THEREFORE BE IT RESOLVED, the SCAQMD Governing Board directs staff to continue to investigate non-toxic alternatives to hexavalent chromium that can be used in electroplating and chromic acid anodizing operations and associated processes; and

BE IT FURTHER RESOLVED, the SCAQMD Governing Board directs staff to initiate a pilot study to identify non-toxic alternatives to hexavalent chromium plating and anodizing operations and to provide a report to the Stationary Source Committee within two years on possible non-toxic alternatives and rule changes, if any; and

BE IT FURTHER RESOLVED, the SCAQMD Governing Board directs staff to continue participating in CARB's rulemaking to amend the ATCM for chromium plating and anodizing and to support a statewide effort to phase-out the use of hexavalent chromium in chromium plating and chromic acid anodizing operations; and

BE IT FURTHER RESOLVED, if non-PFOS chemical fume suppressants are not re-certified, the SCAQMD Governing Board directs staff to work with CARB to identify a low-cost compliance option that is as equally effective as chemical fume suppressants and to seek funding to assist facilities in installation of pollution controls or use of non-toxic alternatives, where feasible; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby certify the Final EA for Proposed Amended Rule 1469 was completed in compliance with CEQA and SCAQMD Rule 110 provisions; and finds that the Final EA, including responses to comments, was presented to the SCAQMD Governing Board, whose members reviewed, considered and approved the information therein prior to acting on Proposed Rule 1469; and

BE IT FURTHER RESOLVED, that because no significant adverse environmental impacts were identified as a result of implementing Proposed Amended Rule 1469, Findings pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15091, a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, and a Mitigation Monitoring and Reporting Plan pursuant to Public Resource Code Section 21081.6 and CEQA Guidelines Section 15097 are not required; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1469 as set forth in Attachment F and incorporated herein by this reference.

DATE: _____ _____

CLERK OF THE BOARDS

ATTACHMENT F

(Adopted October 9, 1998)(Amended May 2, 2003)
(Amended December 5, 2008)(Proposed Amended September 7, 2018)

PROPOSED AMENDED RULE 1469. HEXAVALENT CHROMIUM EMISSIONS FROM CHROMIUM ELECTROPLATING AND CHROMIC ACID ANODIZING OPERATIONS

(a) Purpose

The purpose of this rule is to reduce hexavalent chromium emissions from facilities that perform chromium electroplating or chromic acid anodizing operations and other activities that are generally associated with chromium electroplating and chromic acid anodizing operations.

(~~a~~b) Applicability

(~~1~~) This rule shall apply to the owner or operator of any facility performing chromium electroplating or chromic acid anodizing. ~~Compliance with this rule shall be in addition to other applicable rules, such as Rule 1401 – New Source Review of Toxic Air Contaminants and Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools.~~

(~~2~~) ~~Any person who sells, supplies, offers for sale, uses, or manufactures for sale in the District a chromium electroplating or chromic acid anodizing kit.~~

(~~b~~c) Definitions

For the purposes of this rule, the following definitions shall apply:

(c) (1) ADD-ON AIR POLLUTION CONTROL DEVICE means equipment installed in the ventilation system of ~~chromium electroplating and anodizing tanks~~ any Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) for the purposes of collecting and containing chromium emissions from the tank(s).

(c) (2) ADD-ON NON-VENTILATED AIR POLLUTION CONTROL DEVICE means equipment installed on any Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) for the purposes of collecting, containing, or eliminating chromium emissions that is hermetically sealed and does not utilize a ventilation system.

(c) (~~2~~3) AIR POLLUTION CONTROL TECHNIQUE means any method, such as an add-on air pollution control device, add-on non-ventilated air pollution control device, mechanical fume suppressant or a chemical fume suppressant, that is used to reduce chromium emissions from one or more

Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s)~~chromium electroplating and chromic acid anodizing tanks~~.

(c) (~~3~~4) AMPERE-HOURS means the integral of electrical current applied to an electroplating tank (amperes) over a period of time (hours).

(c) (~~4~~5) ANNUAL PERMITTED AMPERE-HOURS means the maximum allowable chromium electroplating or anodizing rectifier production in ampere-hours, on an annual basis as specified in the SCAQMD Permit to Operate, or SCAQMD Permit to Construct~~, or Compliance Plan for the facility~~.

(c) (6) APPROVED CLEANING METHOD means cleaning using a wet mop, damp cloth, wet wash, low pressure spray nozzle, HEPA vacuum, or other method as approved by the Executive Officer.

(c) (7) ASSOCIATED PROCESS TANK means any tank in the process line of a Tier I, Tier II, or Tier III Hexavalent Chromium Tank.

(c) ~~(5) AREA SOURCE means any stationary source of hazardous air pollutants that is not a major source as defined in this rule.~~

(c) (~~6~~8) BASE MATERIAL means the metal, metal alloy, or plastic that comprises the workpiece.

(c) (9) BARRIER means a physical divider that can be fixed or portable such as a wall, welding screen, plastic strip curtains, etc.

(c) (~~7~~10) BATH COMPONENT means the trade or brand name of each component in trivalent chromium electroplating baths, including the chemical name of the wetting agent contained in that component.

~~(8) BREAKDOWN means an unforeseeable impairment of an air pollution control device or related operating equipment which causes a violation of any emission limitation or restriction prescribed by this rule or by State law and which: is not the result of neglect or disregard of any air pollution control law, rule, or regulation; is not intentional or the result of negligence, or improper maintenance; is not a recurrent breakdown of the same equipment; and, does not constitute a nuisance as defined in the State of California Health and Safety Code, Section 41700, with the burden of proving the criteria of this section placed upon the person seeking to come under the provisions of this law.~~

(c) (11) BUILDING ENCLOSURE means a permanent building or physical structure, or portion of a building, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off), with

limited openings to allow access for people, vehicles, equipment, or parts. A room within a building enclosure that is completely enclosed with a floor, walls, and a roof would also meet this definition.

(c) (~~9~~12) CHEMICAL FUME SUPPRESSANT means any chemical agent that reduces or suppresses fumes or mists at the surface of an electroplating or anodizing bath; another term for fume suppressant is mist suppressant.

(c) (~~10~~13) CHROMIC ACID means the common name for chromium anhydride (CrO_3).

(c) (~~11~~14) CHROMIC ACID ANODIZING means the electrolytic process by which an oxide layer is produced on the surface of a base material for functional purposes (e.g., corrosion resistance or electrical insulation) using a chromic acid solution. In chromic acid anodizing, the part to be anodized acts as the anode in the electrical circuit, and the chromic acid solution, with a concentration typically ranging from 50 to 100 grams per liter (g/L), serves as the electrolyte.

(c) (~~12~~15) CHROMIUM ELECTROPLATING OR CHROMIC ACID ANODIZING TANK means the receptacle or container in which hard or decorative chromium electroplating or chromic acid anodizing occurs.

(c) (~~13~~16) COMPOSITE MESH-PAD SYSTEM (CMP) means an add-on air pollution control device typically consisting of several mesh-pad stages. The purpose of the first stage is to remove large particles. Smaller particles are removed in the second stage, which consists of the composite mesh pad. A final stage may remove any re-entrained particles not collected by the composite mesh pad.

(c) (~~14~~17) DECORATIVE CHROMIUM ELECTROPLATING means the process by which a thin layer of chromium (typically 0.003 to 2.5 microns) is electrodeposited on a base metal, plastic, or undercoating to provide a bright surface with wear and tarnish resistance. In this process, the part(s) serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Typical current density applied during this process ranges from 540 to 2,400 Amperes per square meter (A/m^2) for total electroplating times ranging between 0.5 to 5 minutes.

(c) (~~15~~18) DRAGOUT means fluid containing hexavalent chromium that drips ~~off~~ from ~~parts being~~ electroplated or anodized parts, or from equipment used to remove electroplated or anodized parts from a tank.

(c) (~~16~~19) ELECTROPLATING OR ANODIZING BATH means the electrolytic solution used as the conducting medium in which the flow of current is accompanied by movement of metal ions for the purpose of electroplating metal out of the solution onto a workpiece or for oxidizing the base material.

(c) (~~17~~20) EMISSION LIMITATION means~~, for the purposes of this rule,~~ the concentration of total chromium allowed to be emitted expressed in milligrams per dry standard cubic meter (mg/dscm), or the allowable surface tension expressed in dynes per centimeter (dynes/cm) for decorative chromium electroplating and chromic acid anodizing tanks; and the milligrams of hexavalent chromium per ampere-hour (mg/amp-hr) of electrical current applied to the electroplating tank for hard or decorative chromium electroplating tanks or chromic acid anodizing tanks, or mass emission rate for a Tier II or Tier III hexavalent chromium tank.

(c) (~~18~~21) ENCLOSED STORAGE AREA is any space or structure used to contain material that prevents its contents from being emitted into the atmosphere.

(c) (22) ENCLOSURE OPENING is any permanent opening that is designed to be part of a building enclosure or permanent total enclosure, such as passages, doorways, bay doors, vents, roof openings, and windows. The term excludes openings that are designed to accommodate and generally conform to a stack or duct for a building enclosure or permanent total enclosure.

(c) (~~19~~23) EXISTING FACILITY means a facility that is in operation before October 24, 2007.

(c) (~~20~~24) FACILITY means a~~the major or area~~ source ~~at which chromium electroplating or chromic acid anodizing is performed and/or any source or group of sources or other air contaminant-emitting activities which are~~ located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

(c) (~~21~~2 5) FIBER-BED MIST ELIMINATOR means an add-on air pollution control device that removes contaminants from a gas stream through the mechanisms of inertial impaction and Brownian diffusion. This device consists of one or more fiber beds and is typically installed downstream of another control device, which serves to prevent plugging~~, and consists of one or more fiber beds~~. Each bed consists of a hollow cylinder formed from two concentric screens; the fiber between the screens may be fabricated from glass, ceramic, plastic, or metal.

(c) (~~22~~2 6) FOAM BLANKET means the type of chemical fume suppressant that generates a layer of foam across the surface of a solution when current is applied to that solution.

(c) (~~23~~2 7) FRESH WATER means water, such as tap water, that has not been previously used in a process operation or, if the water has been recycled from a process operation, it has been treated and meets the effluent guidelines for chromium wastewater.

(c) (~~24~~2 8) FUGITIVE EMISSIONS~~DUST, for the purpose of this rule~~ means ~~any~~ emissions generated from the operations at a facility, including solid particulate matter, gas, or mist, potentially containing hexavalent chromium that becomes airborne by natural or man-made activities, excluding particulate matter emitted from an exhaust stack.

(c) (~~25~~2 9) HARD CHROMIUM ELECTROPLATING or INDUSTRIAL CHROMIUM ELECTROPLATING means a process by which a thick layer of chromium (typically greater than 1.0 microns) is electrodeposited on a base material to provide a surface with functional properties such as wear resistance, a low coefficient of friction, hardness, and corrosion resistance. In this process, the part serves as the cathode in the electrolytic cell and the solution serves as the electrolyte. Hard chromium electroplating process is performed at current densities typically ranging from 1,600 to 6,500 A/m^2 for total electroplating times ranging from 20 minutes to 36 hours depending upon the desired plate thickness.

(c) (~~26~~3 0) HEXAVALENT CHROMIUM means the form of chromium in a valence state of +6.

(c) (~~27~~3 1) HIGH EFFICIENCY PARTICULATE ARRESTORS (HEPA) means filter(s) ~~rated~~ that are individually dioctyl phthalate tested and certified by the manufacturer to have a control efficiency of not less than~~at~~ 99.97 percent

~~or more efficient in collecting particle sizes~~ on 0.3 micron~~s~~ particles ~~or larger~~.

(c) (32) HEPA VACUUM means a vacuum that is both designed for the use of and fitted with a HEPA filter.

(c) (~~28~~33) LEAK means the release of chromium emissions from any opening in the emission collection system prior to exiting the emission control device.

(c) (34) LOW PRESSURE SPRAY NOZZLE means a water spray nozzle capable of regulating water pressure to 35 pounds per square inch or less.

(c) (~~29~~35) MAJOR SOURCE means any stationary source or group of stationary sources located within a contiguous area and under common control that emits, or has the potential to emit, considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants.

(c) (~~30~~36) MAXIMUM CUMULATIVE POTENTIAL RECTIFIER CAPACITY means the summation of the total installed rectifier capacity associated with the hard chromium electroplating tanks at a facility, expressed in amperes, multiplied by the maximum potential operating schedule of 8,400 hours per year and 0.7, which assumes that electrodes are energized 70 percent of the total operating time. The maximum potential operating schedule is based on operating 24 hours per day, 7 days per week, 50 weeks per year.

(c) (~~31~~37) MECHANICAL FUME SUPPRESSANT means any physical device, including but not limited to polyballs that reduces fumes or mist at the surfaces of an electroplating or anodizing bath by direct contact with the surface of the bath. ~~Polyballs are the most commonly used mechanical fume suppressant.~~

(c) (38) METAL REMOVAL FLUID means a fluid used at the tool and workpiece interface to facilitate the removal of metal from the part, cool the part and tool, extend the life of the tool, and to flush away metal chips and debris, but does not include minimum quantity lubrication fluids used to coat the tool work piece interface with a thin film of lubricant and minimize heat buildup through friction reduction. Minimum quantity lubrication fluids are applied by pre-coating the tool in the lubricant, or by direct application at the tool work piece interface with a fine mist.

(c) (~~32~~39) MODIFICATION means either:

(A) ~~any~~ Any physical change in, change in method of operation of, or addition to an existing permit unit subject to this rule that requires an application for a SCAQMD ~~p~~Permit to ~~c~~Construct and/or O~~o~~perate and results in an increase in hexavalent chromium emissions. Routine maintenance and/or repair shall not be considered a physical change. A change in the method of operation of equipment, unless previously limited by an enforceable permit condition, shall not include:

(i) ~~an~~ An increase in the production rate or annual ampere-hours, unless such increases will cause the maximum design capacity of the equipment to be exceeded, or will cause a facility to be subject to a different requirement in Table ~~2~~1 – Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks~~of paragraph (c)(11)~~; or

(ii) ~~an~~ An increase in the hours of operation; or

(iii) ~~a~~ A change in ownership of a source;

(B) ~~the~~ The addition of any new chromium electroplating or anodizing tank at an existing facility which increases hexavalent chromium emissions; or

(C) ~~the~~ The fixed capital cost of the replacement of components exceed~~ing~~s 50 percent of the fixed capital cost that would be required to construct a comparable new source.

(c) (~~33~~4 0) MODIFIED FACILITY means any existing facility which has undergone a modification on or after October 24, 2007.

(c) (~~34~~4 1) NEW FACILITY means any facility that begins initial operations on or after October 24, 2007. "New Facility" does not include the installation of a new chromium electroplating or chromic acid anodizing tank at an existing facility or the modification of an existing facility.

(c) (~~35~~4 2) OPERATING PARAMETER VALUE means a minimum or maximum value established to ~~for a~~ monitor~~ing~~ the proper operation of an air pollution control technique.~~device or process parameter which, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator is in continual compliance with the applicable emission limitation or standard.~~

(c) (~~36~~4 3) PACKED-BED SCRUBBER means an add-on air pollution control device consisting of a single or double packed-bed that contains packing media on which the chromic acid droplets impinge. The packed-bed section of the scrubber is followed by a mist eliminator to remove any water entrained from the packed-bed section.

(c) (44) PERFLUOROOCTANE SULFONIC ACID (PFOS) BASED FUME SUPPRESSANT means a fume suppressant that contains 1 percent or greater PFOS (CAS No. 1763-23-1) by weight.

(c) (45) PERMANENT TOTAL ENCLOSURE means a permanent building or containment structure, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off) that has limited openings to allow access for people and vehicles, that is free of breaks or deterioration that could cause or result in fugitive emissions, and has been evaluated to meet the design requirements set forth in U.S. EPA Method 204, or other design approved by the Executive Officer.

(c) (~~37~~4 6) RESPONSIBLE OFFICIAL means one of the following:

(A) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the U.-S. EPA Administrator.

(B) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(C) For a municipality, state, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the

agency (e.g., a Regional Administrator of the ~~U.S. Environmental Protection Agency [~~U.S. EPA~~]~~).

(D) For sources (as defined in this rule) applying for or subject to a Title V permit: "responsible official" shall have the same meaning as defined in ~~District~~SCAQMD's Regulation XXX.

(c) (~~38~~47) SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for ~~purposes of~~ the education of more than 12 children at the school~~, including~~ in kindergarten ~~and grades 1~~ through grade 12.~~, inclusive,~~ School also means an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as pre-schools, Early Head Start, Head Start, First Five, and Child Development Centers. A school ~~but~~ does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property~~, but does not include unimproved school property~~.

(c) (~~39~~48) SCHOOL UNDER CONSTRUCTION means any property that meets any of the following conditions~~.~~:

(A) ~~construction~~ Construction of a school has commenced; or

(B) ~~a~~ A ~~CEQA~~ California Environmental Quality Act Notice for the construction of a school has been issued; or

(C) ~~a~~ A school has been identified in an approved local government specific plan.

(c) (~~40~~49) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

(c) (~~41~~50) SOURCE means any chromium electroplating or chromic acid anodizing operation and any equipment or materials associated with the ~~selected associated~~ air pollution control technique.

(c) (~~42~~51) STALAGMOMETER means a device used to measure the surface tension of a solution by determining the mass of a drop of liquid by weighing a known number of drops, or by counting the number of drops obtained from ~~the weight of each drop, in~~ a given volume of liquid.

(c) (~~43~~5 2) SUBSTANTIAL USE of a SCAQMD P~~p~~permit to C~~c~~onstruct means one or more of the following:

(A) ~~the~~ The equipment that constitutes the source has been purchased or acquired;

(B) ~~construction~~ Construction activities, other than grading or installation of utilities or foundations, have begun and are continuing; or

(C) ~~a~~ A contract to complete construction of the source within one year has been entered into.

(c) (~~44~~5 3) SURFACE TENSION means the property, due to molecular forces, that exists in the surface film of all liquids and tends to prevent liquid from spreading.

(c) (~~45~~5 4) TANK OPERATION means the time in which current and/or voltage is being applied to a chromium electroplating tank or a chromic acid anodizing tank.

(c) (55) TANK PROCESS AREA means the area in the facility within 15 feet of any Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s), or to the nearest wall of a building enclosure or permanent total enclosure, whichever is closer.

(c) (~~46~~5 6) TENSIOMETER means a device used to measure the surface tension of a solution by measuring the force necessary to pull a filament, plate, ~~or~~ ring, or other SCAQMD approved object from the surface of a liquid.

(c) (57) TIER I HEXAVALENT CHROMIUM TANK means a tank permitted as containing a hexavalent chromium concentration of 1,000 parts per million (ppm) or greater and is not a Tier II or Tier III Hexavalent Chromium Tank.

(c) (58) TIER II HEXAVALENT CHROMIUM TANK means a tank that is operated or permitted to operate by the SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified in Appendix 10 and is not a Tier III Hexavalent Chromium Tank.

(c) (59) TIER III HEXAVALENT CHROMIUM TANK means a tank that meets any of the following:

(A) Is operated or permitted to operate by SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified in Appendix 10; or

(B) Contains a hexavalent chromium concentration greater than 1,000 ppm, and uses air sparging as an agitation method or is electrolytic; or

(C) Is a hexavalent chromium electroplating or chromic acid anodizing tank.

(c) (47~~6~~0) TRIVALENT CHROMIUM means the form of chromium in a valence state of +3.

(c) (48~~6~~1) TRIVALENT CHROMIUM PROCESS means the process used for electrodeposition of a thin layer of chromium onto a base material using a trivalent chromium solution instead of a chromic acid solution.

(c) (49~~6~~2) WEEKLY means at least once every seven calendar days.

(c) (50~~6~~3) WETTING AGENT means the type of chemical fume suppressant that reduces the surface tension of a liquid.

(~~e~~d) Requirements

The owner or operator of a facility shall:

(d) (1) ~~The owner or operator of a chromium electroplating tank, chromic acid anodizing tank, or group of such tanks, shall equip~~ Equip each rectified tank with a continuous recording, non-resettable, ampere-hour meter that operates on the electrical power lines connected to the tank or group of tanks. A separate meter shall be hard wired for each ~~rectifier~~tank~~.~~;

(d) (2) ~~The owner or operator of a source with any electroplating or anodizing tank using a wetting agent chemical fume suppressant shall use o~~Only use wetting agent chemical fume suppressants certified pursuant to subdivision (~~f~~l) in hexavalent chromium electroplating or chromic acid anodizing tank(s); ~~.~~

(d) (3) ~~No hexavalent chromium electroplating or chromic acid anodizing tank shall be~~ Not air sparge~~d~~ a hexavalent chromium electroplating or chromic acid anodizing tank when electroplating or anodizing is not occurring, or while chromic acid is being added;

(d) (4) Operate any Tier I, Tier II, or Tier III Hexavalent Chromium Tank within a building enclosure beginning [90 days After Date of Rule Adoption]; and

(d) (5) Operate any Tier II or Tier III Hexavalent Chromium Tank within a building enclosure that meets the requirements of subdivision (e).

(e) Requirements for Building Enclosures for Tier II and Tier III Hexavalent Chromium Tanks

Beginning [180 Days After Date of Rule Adoption], the owner or operator of a facility shall operate Tier II or Tier III Hexavalent Chromium Tank(s) within a building enclosure that meets the following requirements:

(e) (1) The combined area of all enclosure openings shall not exceed 3.5% of the building enclosure envelope, which is calculated as the total surface area of the building enclosure's exterior walls, floor, and horizontal projection of the roof on the ground. Information on calculations for the building enclosure envelope, including locations and dimensions of openings that are counted towards the applicable building envelope allowance, shall be provided in the compliance status reports required in paragraphs (p)(2) and (p)(3). Openings that close or use one or more of the following methods for the enclosure opening shall not be counted toward the combined area of all enclosure openings:

(A) Door that automatically closes; or

(B) Overlapping plastic strip curtain; or

(C) Vestibule; or

(D) Airlock system; or

(E) Alternative method to minimize the release of fugitive emissions from the building enclosure that the owner or operator of a facility can demonstrate to the Executive Officer is an equivalent or more effective method(s) to minimize the movement of air within the building enclosure.

(e) (2) Ensure that any building enclosure openings that open to the exterior and are on opposite ends of the building enclosure where air ~~movement~~ can pass through are not simultaneously open except during the passage of vehicles, equipment or people, not to exceed two hours per operating day, by using one or more of the following:

(A) A method specified in subparagraphs (e)(1)(A) through (e)(1)(E) for the enclosure opening(s) on one of the opposite ends of the building enclosure; or

(B) Utilize a barrier, such as large piece of equipment that restricts air ~~movement from passing through the building enclosure~~ from moving through the building enclosure.

(e) (3) Except for the movement of vehicles, equipment or people, close any building enclosure opening or use any of the methods listed in subparagraphs (e)(1)(A) through (e)(1)(E), that directly faces and opens towards the nearest:

(A) Sensitive receptor, with the exception of a school, that is located within 100 feet, as measured from the property line of the sensitive receptor to the building enclosure opening; and

(B) School that is located within 1,000 feet, as measured from the property line of the school to the building enclosure opening.

(e) (4) Close all enclosure openings in the roof that are located within 15 feet from the edge of any Tier II or Tier III Hexavalent Chromium Tank except enclosure openings in the roof that:

(A) Allow access for equipment or parts; or

(B) Provide intake or circulation air for a building enclosure and does not create air velocities that impact the collection efficiency of a ventilation system for an add-on air pollution control device; or

(C) Are equipped with a HEPA filter or other air pollution control device.

(e) (5) Repair any breach in a building enclosure located within 15 feet from the edge of any Tier II or Tier III Hexavalent Chromium Tank within 72 hours of discovery. The owner or operator of a facility may request an extension by calling 1-800-CUT-SMOG. The Executive Officer may approve a request for an extension beyond the 72-hour limit if the request is submitted before the 72-hour time limit has expired and the owner or operator of a facility provides information that substantiates:

(A) The repair will take longer than 72 hours, or the equipment, parts, or materials needed for the repair cannot be obtained within 72 hours; and

(B) Temporary measures are implemented that ensure no fugitive emissions result from a breach.

(e) (6) The owner or operator of a facility shall notify the Executive Officer if any of the requirements specified in paragraphs (e)(1) through (e)(4) cannot be complied with due to conflicting requirements set forth by the federal Occupational Safety and Health Administration (OSHA), California Division of Occupational Safety and Health (CAL-OSHA), or other municipal codes or agency requirements directly related to worker safety. A Building Enclosure Compliance Plan shall be submitted to the Executive Officer for

review and approval no later than [30 days after Date of Rule Adoption] for facilities existing before [Date of Rule Adoption], and prior to initial start-up for all other facilities. The Building Enclosure Compliance Plan shall be subject to plan fees specified in Rule 306 and include:

(A) An explanation as to why the provision(s) specified in paragraphs (e)(1) through (e)(4) is in conflict with the requirements set forth by OSHA or CAL-OSHA, or other municipal codes or agency requirements directly related to worker safety; and

(B) Alternative compliance measure(s) that will be implemented to minimize the release of fugitive emissions to the outside of the building enclosure.

(e) (7) The Executive Officer shall notify the owner or operator of a facility in writing whether the Building Enclosure Compliance Plan is approved or disapproved.

(A) If the Building Enclosure Compliance Plan is disapproved, the owner or operator of a facility shall ~~re~~submit ~~the~~ a revised Building Enclosure Compliance Plan within 30 calendar days after notification of disapproval of the Building Enclosure Compliance Plan. The ~~resubmitted~~revised Building Enclosure Compliance Plan shall include any information to address deficiencies identified in the disapproval letter.

(B) The Executive Officer will either approve the revised ~~and resubmitted~~ Building Enclosure Compliance Plan or modify the Building Enclosure Compliance Plan and approve it as modified. The owner or operator may appeal the Building Enclosure Compliance Plan modified by the Executive Officer to the Hearing Board pursuant to Rule 216 – Appeals and Rule 221 – Plans.

(e) (8) The owner or operator of a facility shall implement the Building Enclosure Compliance Plan specified in paragraphs (e)(6) and (e)(7), as approved by the Executive Officer, no later than 90 days after receiving notification of approval for facilities existing before [Date of Rule Adoption], and prior to initial start-up for all other facilities. Compliance with the approved alternative compliance measures shall constitute compliance with the applicable provisions of paragraphs (e)(1) through (e)(4).

(e) (9) The owner or operator of a facility that has applied for an SCAQMD permit to install or is required to install an add-on air pollution control device to control either a Tier II or Tier III Hexavalent Chromium Tank(s) shall be

exempt from paragraphs (e)(1) and (e)(4) until the add-on air pollution control device has been installed and commenced normal operation.

~~(4)~~(f) Housekeeping Requirements~~:~~

An owner or operator of a ~~hexavalent~~ chromium electroplating or chromic acid anodizing facility shall:

(f) ~~(A)~~(1) Store chromic acid powder or flakes, or other substances that may contain hexavalent chromium, in a closed container in an enclosed storage area when not in use;

(f) ~~(B)~~(2) Use a closed container when transporting chromic acid powder or flakes from an enclosed storage area to chromium electroplating or chromic acid anodizing tanks;

(f) ~~(C)~~(3) Clean~~-up~~, using an approved cleaning method, or contain, using a drip tray or other containment device, any liquid or solid material that may contain hexavalent chromium that is spilled immediately and no later~~longer~~ than one hour after being spilled;

(f) ~~(D)~~(4) Clean, using an approved cleaning method, surfaces within the enclosed storage area, open floor area, walkways around the chromium electroplating or chromic acid anodizing tank(s), or any surface potentially contaminated with hexavalent chromium or surfaces that potentially accumulate dust weekly; ~~at least once every seven days in one or more of the following manners: HEPA vacuumed, hand wiped with a damp cloth, wet mopped, or maintained with the use of non-toxic chemical dust suppressants; and~~

(f) ~~(E)~~(5) Store, dispose of, recover, or recycle chromium or chromium-containing wastes generated from housekeeping activities of this subdivision using practices that do not lead to fugitive emissions~~dust~~. Containers with chromium-containing waste material shall be kept closed at all times except when being filled or emptied;

(f) (6) Beginning [30 Days After Date of Rule Adoption], ~~U~~use an approved cleaning method to clean floors within 20 feet of a buffing, grinding, or polishing workstation on days when buffing, grinding, or polishing are conducted; and

(f) (7) Beginning [30 Days After Date of Rule Adoption], eliminate all flooring on walkways in the tank process areas that is made of fabric, such as carpets or rugs, where hexavalent chromium containing materials can become trapped.

~~(F)~~ ~~Install a physical barrier to separate the buffing, grinding, or polishing area within a facility from the hexavalent chromium electroplating or anodizing operation. The barrier may take the form of plastic strip curtains.~~

~~(G)~~ ~~Compressed air cleaning operations shall not be conducted at or adjacent to the buffing and grinding areas or the hexavalent chromium electroplating or anodizing operations.~~

(f) (8) Abatement of Hexavalent Chromium Prior to Cutting of Roof Surfaces

The owner or operator a facility shall:

(A) Clean affected surface areas using a HEPA vacuum prior to cutting into a building enclosure roof;

(B) Minimize fugitive emissions during cutting activities using method(s) such as a temporary enclosure and/or HEPA vacuuming; and

(C) Notify the Executive Officer at least 48 hours prior to the commencement of any roof cutting activities into a building enclosure by calling 1-800-CUT-SMOG.

(f) (9) Ensure that if a HEPA vacuum is used, that the HEPA filter is free of tears, fractures, holes or other types of damage, and securely latched and properly situated in the vacuum to prevent air leakage from the filtration system.

(g) Best Management Practices

(g) ~~(H)~~(1) The owner or operator of a facility shall ~~M~~minimize dragout ~~outside of~~from a chromium ~~the~~ electroplating or chromic acid anodizing tank~~(s)~~ for: ~~by implementing the following practices:~~

~~(i)~~(A) ~~Facilities with a~~An automated line~~s shall have~~by installing a drip tray, or other containment device ~~installed~~ between the chromium electroplating or chromic acid anodizing tank~~s so~~ such that ~~the~~ liquid does not fall through the space between tanks. The ~~T~~trays shall ~~be placed such that the liquid is~~ capture~~d~~ and return~~ed~~ the liquid to the tank(s), and be cleaned such that there is no accumulation of visible dust or residue on the drip tray or other containment device potentially contaminated with hexavalent chromium.

~~(ii)~~(B) ~~Facilities without~~A non~~-~~-automated line~~s shall~~ by handle~~ing~~ each electroplated or anodized part, or equipment used to handle ~~such~~

these parts, so that liquid containing chromium or chromic acid is not dripped outside the chromium electroplating, ~~or~~ chromic acid anodizing tank, ~~s, including~~ or associated process tank~~s~~, unless the liquid is captured by a drip tray or other containment device. Facilities spraying down parts over the chromium electroplating or chromic acid anodizing tank(s) to remove excess chromic acid shall have a splash guard installed at the tank to minimize overspray and to ensure that any hexavalent chromium laden liquid is captured and returned to the chromium electroplating or chromic acid anodizing tank. Splash guards shall be cleaned such that there is no accumulation of visible dust potentially contaminated with hexavalent chromium.

(g) (2) Beginning [90 Days After Date of Rule Adoption], the owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall not spray rinse parts or equipment that were previously in a Tier II or Tier III Hexavalent Chromium Tank, unless the parts or equipment are fully lowered inside a tank where the liquid is captured inside the tank. The owner or operator of a facility may alternatively ensure that any liquid containing chromium is captured and returned to the tank by meeting the following conditions when rinsing above a tank:

(A) Installing a splash guard(s) at the tank that is free of holes, tears, or openings. Splash guards shall be cleaned weekly with water; or

(B) For tanks located within a process line utilizing an overhead crane system that would be restricted by the installation of splash guards specified in subparagraph (g)(2)(A), use a low pressure spray nozzle in a manner where water flows off of the part or equipment and into the tank.

(g) (3) Beginning [60 Days After Date of Rule Adoption], the owner or operator of a facility shall maintain clear labeling of each tank within the tank process area with a tank number or other identifier, SCAQMD permit number, bath contents, maximum concentration (ppm) of hexavalent chromium, operating temperature range, any agitation methods used, and designation of whether it is a Tier I, Tier II, or Tier III Hexavalent Chromium Tank, if applicable.

(g) (4) Beginning [90 Days After Date of Rule Adoption], the owner or operator of a facility shall conduct all buffing, grinding, and polishing operations within a building enclosure.

(g) (5) Beginning [90 Days After Date of Rule Adoption], the owner or operator of a facility shall install a barrier to prevent the migration of dust from buffing, grinding, or polishing areas to the chromium electroplating or chromic acid anodizing operation.

(g) (6) The owner or operator of a facility shall not conduct compressed air cleaning or drying operations within 15 feet of any Tier II or Tier III Hexavalent Chromium Tank(s) unless:

(A) A barrier separates the compressed air cleaning or drying operation from the Tier II or Tier III Hexavalent Chromium Tank(s). A tank wall may function as the barrier provided the parts being air cleaned or dried are below the lip of the tank; or

(B) Compressed air cleaning or drying operations are conducted in a permanent total enclosure.

(h) Air Pollution Control Technique Requirements

(h) ~~(5)~~(1) The owner or operator of a facility ~~Add-on air pollution control device(s) for hard or decorative chromium electroplating or chromic acid anodizing tanks~~ shall not ~~be~~ remove~~d~~ or render~~ed~~ inoperable add-on air pollution control device(s) for hard or decorative chromium electroplating or chromic acid anodizing tanks unless it is replaced by air pollution control techniques meeting the requirements in Table 1 - Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks ~~a higher control efficiency than previously achieved, or an emission rate of 0.0015 milligrams per ampere-hour or less, whichever control efficiency is more effective, as demonstrated by a performance test conducted pursuant to subdivision (e), or unless~~ or the facility is operating under an approved alternative compliance method pursuant to ~~paragraph (d)(6)~~subdivision (i).

~~(6) Add-On Control Requirement for Hard Chromium Electroplating Tanks~~

~~During tank operation, each owner or operator of an existing, modified or new source, except facilities that have applied for and received approval for an alternative compliance method pursuant to paragraph (d)(6) or an existing operation that has applied for and received approval for an interim alternative requirement as specified in paragraph (d)(5), shall control hexavalent chromium emissions discharged to the atmosphere from that source by~~

~~reducing the hexavalent chromium emissions using an add-on air pollution control device.~~

~~(7)~~ ~~Training and Certification~~

~~(A)~~ ~~Chromium electroplating personnel responsible for environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data shall complete a District-approved training program every two years. Initial training shall have been completed prior to May 1, 2004 for facilities existing before that time. For new facilities, initial training must be completed within a period not to exceed two years of start-up.~~

~~(B)~~ ~~Only persons who have completed a District-approved training program and have received a certification issued by the District shall be responsible for recordkeeping associated with environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data.~~

~~(C)~~ ~~Notwithstanding subparagraph (c)(7)(B), in the event that all persons who have completed a District-approved training program leave employment at a facility, the owner or operator may be responsible for recordkeeping associated with environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data for a period not to exceed two years.~~

~~(8)~~ ~~Interim Emission Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities Located 25 Meters or Less from a Licensed Daycare, Hospital, Convalescent Home, or a Residence, or Located 100 Meters or Less from an Existing, as of May 2, 2003, School. The following emission limitations shall be in effect until the limits of paragraph (c)(11) become effective.~~

~~(A)~~ ~~The owner or operator shall reduce hexavalent chromium emissions to an emission limitation of 0.0015 milligram or less per ampere-hour for each tank, as measured after add-on controls, if any; or~~

~~(B)~~ ~~The owner or operator shall comply with any applicable interim alternative compliance option, as specified in paragraphs (d)(1) through (d)(5).~~

~~(9) Interim Emission Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities Located More than 25 Meters from a Licensed Daycare, Hospital, Convalescent Home, or a Residence, and More than 100 Meters from an Existing, as of May 2, 2003, School.~~

~~The following emission limitations shall be in effect until the limits of paragraph (c)(11) become effective.~~

~~(A) The owner or operator shall reduce hexavalent chromium emissions to an emission limitation of:~~

~~(i) 0.01 milligrams or less per ampere-hour for each tank, as measured after add-on controls, if any, when actual consumption of electrical current used by the facility for electroplating or anodizing tanks subject to this rule is less than the threshold given in Table 1, for the appropriate operating scenario and operating schedule, or the applicable distance-adjusted ampere-hour level as specified in Appendix 7; or~~

~~(ii) 0.0015 milligrams or less per ampere-hour for each tank, as measured after add-on controls, if any, when actual consumption of electrical current used by the facility for electroplating or anodizing tanks subject to this rule exceeds the threshold given in Table 1, for the appropriate facility operating scenario and regular operating schedule, or the applicable distance-adjusted ampere-hour level as specified in Appendix 7; or~~

~~(B) The owner or operator shall comply with any applicable interim alternative compliance option, as specified in paragraphs (d)(1) through (d)(5).~~

~~Table 1~~

~~Ampere-Hour Thresholds for Facilities Located More than 25 Meters from a Sensitive Receptor or a Residence~~

~~Operating Scenario~~	~~Regular Operating Schedule~~	~~Ampere Hour Threshold~~
~~Vented to Air Pollution Control Device~~	~~More than 12 hours per day~~	~~1,800,000 ampere-hours/yr~~
~~Vented to Air Pollution Control Device~~	~~12 hours per day or less~~	~~1,600,000 ampere-hours/yr~~

~~Not Vented to Air Pollution Control Device~~	~~Any~~	~~1,150,000 ampere-hours/yr~~

~~(10) Interim Emission Standards for Existing Facilities Conducting Multiple Hexavalent Chromium Electroplating Processes or Anodizing Processes~~

~~(A) For any facility subject to paragraph (c)(9) where a combination of hexavalent chromium electroplating or chromic acid anodizing is conducted, the owner or operator shall comply with an emission limitation in lieu of the one specified in paragraph (c)(9). The emission limitation shall be determined by calculating weighted facility energy consumption over any calendar year, using the following equation:~~

$$\text{Weighting Factor} = \frac{\text{Tanks Vented to APC Operating} > \text{12 hrs/day (Amp-hrs/yr)}}{(1)} + \frac{\text{Tanks Vented to APC Operating} \leq \text{12 hrs/day (Amp-hrs/yr)}}{(2)} + \frac{\text{Tanks Not Vented to APC (Amp-hrs/yr)}}{(3)}$$

~~Where:~~

~~(1) = 1,800,000 ampere-hours per year or applicable distance-adjusted ampere-hour level as specified in Appendix 7.~~

~~(2) = 1,600,000 ampere-hours per year or applicable distance-adjusted ampere-hour level as specified in Appendix 7.~~

~~(3) = 1,150,000 ampere-hours per year or applicable distance-adjusted ampere-hour level as specified in Appendix 7.~~

~~(B) If weighted source energy consumption is less than or equal to 1, the applicable emission limitation shall be 0.01 milligram or less per ampere-hour for each tank~~

~~(C) If weighted source energy consumption is greater than 1, the applicable emission limitation shall be 0.0015 milligram or less per ampere-hour for each tank, as measured after add-on controls, if any.~~

(h) ~~(11)~~(2) Emission Standards for ~~Existing~~ Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Facilities ~~beginning October 24, 2007~~

(A) The owner or operator of a facility ~~of an existing facility~~ shall control hexavalent chromium emissions discharged to the atmosphere by meeting the requirements identified below in Table 1~~2~~ - Hexavalent Chromium Emission Limits for ~~Hexavalent~~ Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks. Alternatively, a facility can choose to comply by operating under an approved alternative compliance method pursuant to subdivision (i)~~paragraph (d)(6)~~.

Table 1: Hexavalent Chromium Emission Limits for ~~Hexavalent~~ Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks

Facility Type	Distance to Sensitive Receptor (feet)	Annual Permitted Amp-Hrs	Hexavalent Chromium Emission Limit (mg/amp-hr)	Minimum Air Pollution Control Technique
Existing Facility	< 330[1]	< 20,000	0.01	Use of Certified Chemical Fume Suppressant at or below the certified surface tension.[3]
Existing Facility	< 330[1]	> 20,000	0.0015[2]	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Existing Facility	> 330[1]	< 50,000	0.01	Use of Certified Chemical Fume Suppressant at or below the certified surface tension.[3]
Existing Facility	> 330[1]	> 50,000 and < 500,000	0.0015[2]	Use of an air pollution control technique that controls hexavalent chromium.
Existing Facility	> 330[1]	> 500,000	0.0015[2]	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Modified Facility	Any	Any	0.0015[2]	Using an add-on air pollution control device(s), or an approved alternative method pursuant to subdivision (i).
New Facility	Any	Any	0.0011[2]	Using a HEPA add-on air pollution control device, or an approved alternative method pursuant to subdivision (i).

[1] Distance shall be measured, rounded to the nearest ~~meter~~foot, from the edge of the chromium electroplating or chromic acid anodizing tank nearest the sensitive receptor (for facilities without add-on air pollution control devices), or from the stack or centroid of stacks (for facilities with add-on air pollution control devices), to the property line of the nearest sensitive receptor. The symbol ≤ means less than or equal to. The symbol > means greater than.

[2] As demonstrated by source test requirements under subdivision (k).

[3] Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr as demonstrated through source test requirements under subdivision (k).

~~**Table 2: Hexavalent Chromium Emission Limits for Existing Tanks**~~

~~Distance to Sensitive Receptor (meters)~~	~~Annual Permitted Ampere-hours~~	~~Emission Limit (mg/amp-hr)~~	~~Effective Date~~
~~≤ 100~~	~~≤ 20,000~~	~~0.01[2]~~	~~4/24/2008~~
~~≤ 100~~	~~> 20,000 and ≤ 200,000~~	~~0.0015[1]~~	~~10/24/2010~~
~~≤ 100~~	~~> 200,000~~	~~0.0015[1]~~	~~10/24/2009~~
~~> 100~~	~~≤ 50,000~~	~~0.01[2]~~	~~4/24/2008~~

~~> 100~~	~~> 50,000 and ≤ 500,000~~	~~0.0015~~	~~10/24/2011~~
~~> 100~~	~~> 500,000~~	~~0.0015[1]~~	~~10/24/2009~~

~~[1] Measured after add-on air pollution control device(s).~~

~~[2] Achieved through use of Certified Chemical Fume Suppressants. Alternatively, a facility may install an add-on air pollution control device(s) that controls emissions to below 0.0015 mg/amp-hr.~~

~~(B)~~ ~~The owner or operator of an existing facility shall submit by November 24, 2007, a notification to the District providing distance(s) to the nearest sensitive receptor. Distances shall be measured as follows:~~

~~(i)~~ ~~For facilities that do not have an add-on air pollution control device on October 24, 2007, the measurement shall be the distance, rounded to the nearest foot, from the edge of the hexavalent chromium electroplating or anodizing tank nearest the sensitive receptor to the property line of the nearest sensitive receptor that exists on October 24, 2007.~~

~~(ii)~~ ~~For facilities with an add-on air pollution control device on October 24, 2007, the measurement shall be the distance, rounded to the nearest foot, from the centroid of the stack to the property line of the nearest sensitive receptor that exists on October 24, 2007.~~

~~(C)~~ ~~Screening Health Risk Assessment~~

~~(i)~~ ~~The owner or operator of an existing facility shall conduct a screening health risk assessment if annual hexavalent chromium emissions from the chromium electroplating and chromic acid anodizing operations exceed 15 grams in the calendar year following the year of the facility's applicable effective compliance date specified in Table 2 of paragraph (c)(11) and any calendar year thereafter.~~

~~(ii)~~ ~~The screening health risk assessment shall be conducted for hexavalent chromium emissions from the hexavalent chromium electroplating and chromic acid anodizing operations, and in accordance with the most current version of the District's "Risk Assessment Procedures of Rules 1401 and 212" or "Air Toxics Hot Spots Program Risk Assessment Guidelines" *(OEHHA Guidelines).*~~

~~(iii) The owner or operator shall submit the screening health risk assessment to the Executive Officer within 120 days of the end of the calendar year during which the facility's hexavalent chromium emissions exceeded 15 grams.~~

~~(iv) The owner or operator may comply with clause (c)(11)(C)(i) by using an existing health risk assessment or screening health risk assessment previously approved by the District provided the existing health risk assessment is:~~

~~(I) Based on the most current version of the District's "Risk Assessment Procedures of Rules 1401 and 212" or *OEHHA Guidelines*; and~~

~~(II) representative of the chromium electroplating or chromic acid anodizing operating conditions for the subject year; and~~

~~(III) calculated using an annual hexavalent chromium emission amount that is equal to or greater than the amount of the subject year; and~~

~~(IV) uses receptor distances less than or equal to those for the subject year.~~

~~(12) Modified Hexavalent Chromium Electroplating or Chromic Acid Anodizing Facilities~~

~~(A) The owner or operator of a modified facility shall, upon start-up of modification, control hexavalent chromium emissions from the electroplating or anodizing tank(s) by:~~

~~(i) Using an add-on air pollution control device(s), or an approved alternative method pursuant to paragraph (d)(6), to control hexavalent chromium emission, and~~

~~(ii) Meeting an emission limit of 0.0015 milligrams per ampere-hour or less.~~

~~(B) When annual emissions of hexavalent chromium after modification are expected to exceed 15 grams per calendar year, the owner or operator shall demonstrate that the modification complies with District Rules 1401, 1401.1 and 1402 prior to initial start-up.~~

~~(13) New Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities~~

~~(A)~~(B) The owner or operator of a new facility ~~conducting hexavalent chromium electroplating or chromic acid anodizing operations~~ shall:

(i) Demonstrate in its SCAQMD permit application that the new facility is not located in an area that is zoned for residential or mixed use; and

(ii) Demonstrate in its SCAQMD permit application that the new facility~~, determined by the District,~~ is not located within 1,000 feet from the boundary of a sensitive receptor, a school under construction, or any area that is zoned for residential or mixed use~~;~~.

~~(iii) Reduce hexavalent chromium emissions discharged to the atmosphere from the electroplating or anodizing tank(s) by installing a HEPA add-on air pollution control device, or an approved alternative method pursuant to paragraph (d)(6);~~

~~(iv) Meet a hexavalent chromium emission rate of ≤ 0.0011 milligrams/ampere-hour as measured after the HEPA add-on air pollution control device;~~

~~(v) Conduct a facility-wide screening health risk assessment for all toxic air contaminant emissions which shall be submitted to the District when filing applications for Permit to Construct/Operate the new equipment. The screening health risk assessment shall be conducted in accordance with the most current version of the District's "Risk Assessment Procedures of Rules 1401 and 212" or *OEHHA Guidelines*; and~~

~~(vi) Comply with District Rules 1401 and 1401.1, if applicable.~~

~~(B)~~(C) A new facility shall be deemed to meet the requirements specified in clauses ~~(c)(13)(A)(i)~~(h)(2)(B)(i) and (h)(2)(B)(ii) if one of the following criteria is met, even if the facility does not meet the requirement at the time of initial start-up:

(i) The requirements specified in clauses ~~(c)(13)(A)(i)~~(h)(2)(B)(i) and (h)(2)(B)(ii) are met at the time an SCAQMD P~~p~~ermit to C~~c~~onstruct is issued ~~by the District~~, and substantial use of the SCAQMD P~~p~~ermit to C~~c~~onstruct takes place within one year after it is issued; or

(ii) The requirements specified in clauses ~~(c)(13)(A)(i)~~(h)(2)(B)(i) and (h)(2)(B)(ii) are met at the time an SCAQMD ~~p~~Permit to ~~c~~Construct is issued ~~by the District~~, and substantial use of the SCAQMD ~~p~~Permit to ~~c~~Construct ~~takes place~~occurs before any zoning change ~~occurs~~ that affects the operation's ability to meet the requirement at the time of initial start-up.

~~(C)~~(D) Prior to initial start-up, the owner or operator of a new facility shall ~~demonstrate to the District that the new facility~~ meet~~s~~ the requirements specified in paragraph ~~(c)(13)~~(h)(2).

(h) ~~(14)~~(3) Decorative Chromium Electroplating Tanks Using a Trivalent Chromium Bath

~~(A)~~ During tank operation, the owner or operator of a~~n existing, modified, or new~~ facility shall control chromium emissions discharged to the atmosphere by meeting one or more of the requirements identified below.

Method of compliance	Requirement
Add-on air pollution control device, or chemical fume suppressants forming a foam blanket, or mechanical fume suppressants (~~i.e.~~e.g. polyballs)	≤ 0.01 milligrams of total chromium per dry standard cubic meter of air (mg/dscm) (4.4x10-6 gr/dscf) as demonstrated with an initial source test using an approved method pursuant to paragraph (k)(2)
~~Certified c~~Chemical fume suppressants containing a wetting agent that is not a PFOS based fume suppressant	Use wetting agent as bath component and comply with recordkeeping and reporting provisions of paragraphs ~~(j)(9)~~(o)(10) and ~~(k)~~(p)(5)~~.~~

~~(B) New facilities that perform electroplating using a trivalent chromium bath shall conduct a facility-wide screening health risk assessment for all toxic air contaminant emissions which shall be submitted to the District when filing applications for Permit to Construct/Operate the new equipment. The screening health risk assessment shall be conducted in accordance with the most current~~

~~version of the District's "Risk Assessment Procedures of Rules 1401 and 212" or *OEHHA Guidelines*.~~

~~(15) Permit Application Submittals~~

~~(A) The owner or operator of a hexavalent chromium electroplating or chromic acid anodizing facility subject to this rule, that either does not have a permitted annual ampere-hour limit, or is requesting a reduction of an existing ampere-hour limit, shall submit an application for administrative change of operating condition subject to fees specified in Rule 301. The application shall be submitted to the District no later than February 24, 2009.~~

~~(B) The owner or operator of an existing hexavalent chromium electroplating or chromic acid anodizing facility shall submit permit applications for all new or modified equipment necessary to comply with the requirements of Table 2 of paragraph (c)(11). Permit applications shall be submitted to the District no later than 8 months prior to the applicable effective date of Table 2.~~

(h) (4) Tier III Hexavalent Chromium Tanks (Excluding Chromium Electroplating and Chromic Acid Anodizing Tanks)

(A) The owner or operator of a facility shall collect and vent hexavalent chromium emissions from any Tier III Hexavalent Chromium Tank, excluding chromium electroplating and chromic acid anodizing tanks subject to paragraph (h)(2), to an add-on air pollution control device, or an approved alternative compliance method pursuant to subdivision (i), that meets the following hexavalent chromium emission limits as demonstrated by source test requirements under subdivision (k):

(i) 0.0015 mg/amp-hr, for existing or modified facilities, if any tank(s) vented to an air pollution control device are electrolytic;

(ii) 0.0011 mg/amp-hr, for new facilities, if any tank(s) vented to an air pollution control device are electrolytic;

(iii) 0.20 mg/hr, if all tanks vented to the add-on air pollution control device are not electrolytic and the ventilation system has a maximum exhaust rate of 5,000 cfm or less; or

(iv) 0.004 mg/hr-ft^2, with the applicable surface area based on the surface area of all Tier III Hexavalent Chromium

Tank(s) and other tanks required to be vented to an add-on air pollution control device with a SCAQMD Permit to Operate, provided all tanks are not electrolytic, if the ventilation system has a maximum exhaust rate of greater than 5,000 cfm.

(B) For Tier III Hexavalent Chromium Tanks specified in subparagraph (h)(4)(A) existing prior to [Date of Rule Adoption], the owner or operator of a facility shall submit complete SCAQMD permit applications for add-on air pollution control devices to the Executive Officer as specified below:

Table 2: Permit Submittal Schedule for Add-on Air Pollution Control Devices for Previously Existing Tier III Hexavalent Chromium Tanks[1]

Electrolytic Process at the Facility	Compliance Date for SCAQMD Permit Application Submittal for Add-on Air Pollution Control Device
Chromic Acid Anodizing	[180 Days after Date of Rule Adoption]
Hard Chromium Electroplating	[365 Days after Date of Rule Adoption]
Decorative Chromium Electroplating	[545 Days after Date of Rule Adoption]

[1] For multiple electrolytic processes at a facility, the owner or operator shall comply with the earliest compliance date.

(i) ~~A~~The owner or operator of a facility shall conduct a source test ~~shall be conducted~~ prior to the issuance of a SCAQMD Permit to Operate.

(ii) Beginning no later than [30 days after Date of Rule Adoption] until the add-on air pollution control device specified in subparagraph (h)(4)~~(B)~~(C)has been installed, cover the tank no later than 30 minutes after ceasing operation of the tank. Tank covers shall be free of holes, tears, and gaps.

(C) The owner or operator of a facility shall:

(i) Install an add-on air pollution control device to meet the requirements under subparagraph (h)(4)(A) no later than 12 months after a Permit to Construct for the add-on air

pollution control device has been issued by the Executive Officer;

(ii) Implement the alternative compliance method to meet the requirements under subparagraph (h)(4)(A) based on the timeframe specified in the approved alternative compliance method; or

(iii) No later than two years after approval, implement an approved Hexavalent Chromium Phase-Out Plan pursuant to subdivision (u).

(~~C~~D) The owner or operator of a facility shall not be subject to the requirement of subparagraph (h)(4)(A) to vent a Tier III Hexavalent Chromium Tank to an add-on air pollution control device if the uncontrolled hexavalent chromium emission rate of the tank is less than 0.2 mg/hr, as demonstrated by a SCAQMD approved source test. The source test shall be conducted pursuant to the Technical Guidance Document for *Measurement of Hexavalent Chromium Emissions from Chromium Plating and Chromic Acid Anodizing Operations for Certification of Wetting Agent Chemical Mist Suppressant Subject to SCAQMD Rule 1469*.

(h) (5) Tier II Hexavalent Chromium Tank

The owner or operator of a facility shall control hexavalent chromium emissions from a Tier II Hexavalent Chromium Tank by:

(A) Utilizing a tank cover, mechanical fume suppressant, or other method approved by the Executive Officer, no later than [90 Days from Date of Adoption]; or

(B) Meeting the requirements for a Tier III Hexavalent Chromium Tank specified in subparagraphs (h)(4)(A) and (h)(4)(B).

(h) (6) Ventilation Design and Operation of~~for~~ Air Pollution Control Techniques

The owner or operator of a facility shall operate air pollution control techniques required under subdivisions (h) at or above the applicable minimum hood induced capture velocity specified in the most current edition (i.e., at the time the SCAQMD permit application was deemed complete by SCAQMD) of *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists.

~~(d) Alternative Compliance Options and Methods~~

~~(1) Alternative Interim Compliance Options – Inventory and Health Risk Assessment~~

~~In lieu of complying with the interim requirements of paragraphs (c)(8), (c)(9), or (c)(10) an owner/operator may elect to submit an inventory and health risk assessment prepared pursuant to Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, subdivisions (n) [Emissions Inventory Requirements] and (j) [Risk Assessment Procedures].~~

~~(A) Health risk assessments approved by the Executive Officer prior to May 2, 2003, shall demonstrate that facility-wide emissions of all toxic air compounds result in a cancer risk of:~~

~~(i) Less than 25 in a million for facilities located more than 25 meters from a licensed daycare center, hospital, convalescent home, or a residence, and located more than 100 meters from an existing, as of May 2, 2003, school (kindergarten through grade 12).~~

~~(ii) Less than 10 in a million for facilities located 25 meters or less from a licensed daycare center, hospital, convalescent home, or a residence, or located 100 meters or less from an existing, as of May 2, 2003, school (kindergarten through grade 12).~~

~~(B) Health risk assessments not approved by the Executive Officer prior to May 2, 2003, shall demonstrate that facility-wide emissions of all toxic compounds with existing controls result in a cancer risk of those specified in (d)(1)(A)(i) or (d)(1)(A)(ii) at their respective receptor distances.~~

~~(i) The inventory and health risk assessment shall be submitted by January 1, 2004.~~

~~(ii) After review, the Executive Officer will notify the facility in writing whether a health risk assessment conducted pursuant to this paragraph is approved or disapproved.~~

~~(iii) If a health risk assessment conducted pursuant to this paragraph is disapproved, or if the approved cancer risk exceeds those specified in (d)(1)(A)(i) or (d)(1)(A)(ii) at their respective receptor distances, the facility shall comply~~

~~with the applicable interim requirements of (c)(8), (c)(9), or (c)(10) no later than one year after notification by the District. Within 60 days from the date of disapproval, the owner or operator shall begin use of a wetting agent chemical fume suppressant certified pursuant to subdivision (f).~~

~~(C)~~ ~~The owner or operator of a facility subject to subparagraph (d)(1)(A) or (d)(1)(B) shall comply with enforceable conditions to ensure that controls result in a cancer risk of those specified in (d)(1)(A)(i) or (d)(1)(A)(ii) at their respective receptor distances.~~

~~(D)~~ ~~If a health risk assessment, approved under this paragraph as demonstrating a cancer risk of those specified in (d)(1)(A)(i) or (d)(1)(A)(ii) at their respective receptor distances, is subsequently determined to demonstrate actual cancer risks exceeding 25 in a million or 10 in a million, as applicable, the health risk assessment will be disapproved and the owner or operator of the facility shall comply with the specific applicable interim requirements of (c)(8), (c)(9), or (c)(10) no later than one year after notification of disapproval by the District. Within 60 days from the date of notification, the owner or operator shall begin use of a wetting agent chemical fume suppressant certified pursuant to subdivision (f).~~

~~(2)~~ ~~Alternative Interim Compliance Options – Emission Reduction Plan~~

~~(A)~~ ~~In lieu of complying with the specific interim requirements of paragraph (c)(8), the owner or operator of a facility located 25 meters or less from a licensed daycare center, hospital, convalescent home, or a residence, or located 100 meters or less from an existing, as of May 2, 2003, school (kindergarten through grade 12) may elect to submit an Emission Reduction Plan identifying potential emission reduction strategies on or before May 1, 2004. The plan shall demonstrate that facility-wide hexavalent chromium emissions result in a cancer risk of ≤ 10 in a million and shall include, but is not limited to, the following areas:~~

~~(i)~~ ~~pollution prevention;~~

~~(ii)~~ ~~voluntary, enforceable reduction in ampere-hour limits; and~~

~~(iii)~~ ~~installation of add-on control.~~

(B) Following Executive Officer approval, the owner or operator of a facility that elects to implement an Emissions Reduction Plan shall do the following:

(i) submit all necessary permit applications within 90 days of plan approval; and

(ii) install necessary control equipment within 15 months from the date of plan approval; and

(iii) conduct any performance test required for compliance with a permit condition or a compliance plan condition pursuant to subdivision (e).

(3) Alternative Interim Compliance Options – Maximum Installed Controls

Effective May 1, 2005, in lieu of complying with the interim requirements of paragraphs (c)(8), (c)(9), or (c)(10) the owner or operator shall use HEPA or an equivalent air pollution control technique and use a wetting agent chemical fume suppressant, certified under subdivision (f), and comply with all applicable permit conditions and approved Compliance Plan conditions.

(4) Alternative Interim Compliance Options - Facility-wide Mass Emission Rate

(A) As an alternative to complying with the interim emission limitation requirements of paragraph (c)(9), the owner or operator of a facility that is located more than 25 meters from a licensed daycare center, hospital, convalescent home, or a residence, and located more than 100 meters from an existing, as of May 2, 2003, school (kindergarten through grade 12) shall provide calculations in the Compliance Plan to demonstrate that facility-wide emissions of hexavalent chromium do not exceed the threshold in Table 3 for the appropriate facility operating scenario and regular operating schedule, or the applicable distance-adjusted annual emission level as specified in Appendix 7.

Table 3

Annual Emission Thresholds for Facilities Located More than 25 Meters from a Licensed Daycare Center, Hospital, Convalescent Home, or a Residence

Operating Scenario	**Regular Operating Schedule**	**Annual Emission Threshold**
Vented to Air Pollution Control Device	12 hours per day or less	0.036 lbs/yr
Vented to Air Pollution Control Device	More than 12 hours per day	0.04 lbs/yr

~~Not Vented to Air Pollution Control Device~~	~~Any~~	~~0.025 lbs/yr~~

~~(B)~~ ~~The owner or operator of a facility complying with this paragraph shall use the Hexavalent Chromium Source Test Parameter Guidance Document to establish testing parameters.~~

~~(C)~~ ~~The owner or operator of a facility complying with this paragraph shall update the facility-wide emissions calculations every year using process information from the preceding twelve months, and shall provide such calculations upon request.~~

~~(5)~~ ~~Alternative Interim Compliance Options – Alternative Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities with Low Annual Ampere-Hour Usage~~

~~(A)~~ ~~Until the emission limits of paragraph (c)(11) become effective, the Executive Officer may approve a Compliance Plan specifying interim alternative standards for facilities with actual consumption of electrical current less than or equal to 365,000 ampere-hours for any calendar year. For hard chromium electroplating facilities constructed on or before December 16, 1993, the Executive Officer, with U.S. EPA concurrence shall approve this plan if equivalent results are obtained. Upon approval, the requirements identified in the plan shall be the applicable requirements under this regulation.~~

~~(B)~~ ~~At a minimum, the hexavalent chromium electroplating or chromic acid anodizing tank shall use chemical fume suppressants containing a wetting agent to lower the surface tension of the electroplating bath to no more than 45 dynes per centimeter (dynes/cm) (3.1×10^{-3} pound-force per foot [lbF/ft]), or the surface tension established during testing of a certified fume suppressant under subdivision (f).~~

~~(C)~~ ~~Upon approval of a facility's Compliance Plan, the Executive Officer may require additional emission reduction techniques as necessary to reduce the public health impact of emissions from the operation.~~

~~(D)~~ ~~The owner or operator shall comply with the applicable monitoring [subdivision (g)], recordkeeping [subdivision (j)], and reporting [subdivision (k)] requirements.~~

~~(E) If the facility is located 25 meters or less from a licensed daycare center, hospital, convalescent home, or a residence, or located 100 meters or less from an existing, as of May 2, 2003, school (kindergarten through grade 12), and actual consumption of electrical current exceeds 500,000 ampere-hours per year after May 2, 2003, the owner or operator shall use HEPA or an equivalent air pollution control technique and use a wetting agent chemical fume suppressant certified under subdivision (f), on all hexavalent chromium electroplating and chromic acid anodizing tanks. An application for a permit to construct the control equipment shall be filed within 90 days of the date of the approved Notice of Violation for the ampere-hour threshold exceedance and the control equipment shall be installed within 15 months from the date of the approved Notice of Violation for the ampere-hour threshold exceedance.~~

~~(F) Emission-Related Exceedance~~

~~(i) Effective November 1, 2003, the owner or operator of a facility subject to paragraph (d)(5) located 25 meters or less from a licensed daycare center, hospital, convalescent home, or a residence, or located 100 meters or less from an existing, as of May 2, 2003, school (kindergarten through grade 12) that is using a wetting agent chemical fume suppressant with no associated add-on air pollution control device(s) will begin to accrue notices of violation for emission-related exceedances specified under (d)(5)(F)(ii). The owner or operator of a facility who accrues three or more approved notices of violation for an emission-related exceedance within a five year period shall comply with the emission limitation specified in subparagraph (c)(8)(A) by installing a ventilation system and HEPA controls, or equivalent controls, on all hexavalent chromium electroplating and chromic acid anodizing tanks.~~

~~An application for a permit to construct the control equipment shall be filed within 90 days of the date of the third approved notice of violation and the control equipment~~

~~shall be installed within 15 months from the date of the third approved notice of violation.~~

~~(ii) An emission-related exceedance, for the purpose of this rule, is defined as:~~

~~(I) exceeding the applicable surface tension limit established under subdivision (f) or subparagraph (d)(5)(B) for a wetting agent chemical fume suppressant; or~~

~~(II) exceeding the ampere-hour limit specified in subparagraph (d)(5)(A) by 135,000 ampere-hours per year, or less, or exceeding the ampere-hour limit in an approved Compliance Plan condition for any calendar year; or~~

~~(III) exceeding the chromic acid weight concentration limit specified in any permit issued after May 2, 2003; or~~

~~(IV) a missing stalagmometer, tensiometer, or ampere-hour meter or a broken or inoperable stalagmometer, tensiometer, or ampere-hour meter unless:~~

~~(a) it is repaired or replaced within one week after its breakdown; or~~

~~(b) the tank or tanks served by the device are removed from service until the device has been repaired or replaced; or~~

~~(c) the owner can provide proof of ordering a new device within 7 days after the device became broken or inoperable, and the device is replaced within 14 days after it became broken or inoperable.~~

~~(iii) For the purpose of counting notices of violations which may trigger the installation of controls pursuant to this subparagraph, a notice of violation shall be counted as a single emission-related exceedance even if it cites multiple emission-related exceedances as defined in subparagraph (d)(5)(F), provided that the multiple emission-related~~

~~exceedances are based on a single field inspection conducted in one day.~~

~~(iv) The provisions of subparagraph (d)(5)(F) shall apply to an owner or operator of a facility within any five year time period.~~

~~(v) The provisions of this paragraph shall in no way limit the evaluation or prosecution by the District of any notices of violation or any emissions related exceedances contained therein.~~

~~(6)~~(i) Alternative Compliance Methods for Existing, Modified, and New ~~New, Modified and Existing~~ Hexavalent Decorative and Hard Chromium Electroplating and Chromic Acid Anodizing Facilities

The owner or operator of a facility ~~may~~ that elects to submit ~~to the District~~ an alternative compliance method~~(s)~~ to meet the emission limits specified in paragraphs (h)(2) and (h)(4) ~~to subparagraphs (c)(11)(A) for existing facilities, clause (c)(12)(A)(i) for modified facilities, and clause (c)(13)(A)(iii) for new facilities. In order to operate under this paragraph, the owner or operator~~ shall:

(i) ~~(A)~~(1) Submit an SCAQMD permit application that includes the information contained in Appendix ~~8~~ 7 to the Executive Officer; and.

(i) ~~(B)~~(2) Demonstrate that the alternative method~~(s)~~ is enforceable, provides an equal, or greater hexavalent chromium emission reduction, and provides an equal, or greater risk reduction than ~~would direct~~ compliance with the emission limits ~~requirements of~~ specified in paragraphs ~~(c)(11)(A)~~(h)(2) and (h)(4) ~~for existing facilities, (c)(12)(A)(i) for modified facilities, and (c)(13)(A)(iii) for new facilities~~.

~~(C) Implement alternative method(s), upon approval by the Executive Officer, within the applicable compliance dates of Table 2 of (c)(11)(A) for existing facilities and prior to initial start-up for new or modified facilities.~~

(j) Training and Certification

(j) (1) Chromium electroplating and chromic acid anodizing personnel responsible for environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data shall complete a SCAQMD approved training program every two years and receive a certification issued by the Executive Officer. For new facilities, initial

training must be completed within a period not to exceed two years from start-up.

(j) (2) Only persons who have completed a SCAQMD approved training program and have received a certification issued by the Executive Officer shall be responsible for recordkeeping associated with environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data.

(j) (3) Notwithstanding paragraph (j)(2), in the event that all persons who have completed a SCAQMD approved training program and received a certification issued by the Executive Officer leaves employment at a facility, the owner or operator of a facility may be responsible for recordkeeping associated with environmental compliance, maintaining electroplating bath chemistries, and testing and recording electroplating bath surface tension data for a period not to exceed two years.

(ek) ~~Performance~~ Source Test Requirements and Test Methods

(k) (1) ~~Performance~~ Source Test Requirements

(A) The owner or operator of ~~an existing~~ a facility ~~using add-on air pollution control device(s), foam blanket chemical fume suppressants, or mechanical fume suppressants to comply with the requirements of paragraphs (c)(8) through (c)(11), (d)(5), or any source electing to comply with the mg/dscm emission standard in paragraph (c)(14)~~ required to meet an emission limit pursuant to paragraphs (h)(2) or (h)(4) shall conduct an ~~performance~~initial source test and subsequent source tests pursuant to the schedule specified in Table 3 – Source Tests Schedule. ~~to demonstrate compliance with the applicable emission standards within 180 days after initial startup or before the applicable effective date listed in Table 2 of paragraph (c)(11), whichever is sooner. New or modified facilities complying with the requirements of paragraphs (c)(12) and (c)(13) shall conduct a performance test within 60 days after initial start-up.~~

Table 3: Source Tests Schedule

Facility-wide Permitted Annual Ampere-Hours	Due Date of Initial Source Test Protocol[a]	Initial Source Test Date	Due Date of Subsequent Source Test Protocol	Subsequent Source Tests
> 20,000,000	No later than [180 Days After Date of Rule Adoption]	No later than 120 days after approval of the initial source test protocol.	180 days prior to the due date of the subsequent source test.	No later than 60 months from the day of the most recent source test that demonstrates compliance with all applicable requirements
< 20,000,000 and > 1,000,000	No later than [365 Days After Date of Rule Adoption]			
≤ 1,000,000	No later than [545 Days After Date of Rule Adoption]			No later than 84 months from the day of the most recent source test that demonstrates compliance with all applicable requirements

[a] New or modified air pollution control techniques used to meet the emission limits under paragraphs (h)(1), (h)(2), or (h)(4) permitted after [Date of Adoption], shall submit the initial source test protocol 60 days after initial start-up of the air pollution control technique.

(B) The owner or operator of a facility may conduct the initial source test after the 120 days specified in Table 3 – Source Tests Schedule, provided:

(i) A written request 30 days before the due date of the source test is submitted to the Executive Officer;

(ii) The additional time needed is substantiated by reason(s) outside of their control; and

(iii) The Executive Officer approves the request in writing no later than the due date of the source test.

(C) The owner or operator of a facility may use an existing source test conducted after January 1, 2015 to demonstrate compliance with the initial source test requirements of subparagraph (k)(1)(A), provided:

(i) The applicable emission limits in subdivision (h) are demonstrated;

(ii) The operating conditions during the source test are representative of the operating conditions as of [Date of Rule Adoption]; and

(iii) Test methods specified in paragraph (k)(2) are used.

(D) No later than [30 days after Date of Rule Adoption], an owner or operator of a facility using a source test pursuant to subparagraph

(k)(1)(C) that ~~is~~ has not been approved, shall submit the source test to the Executive Officer for approval.

(E) An owner or operator of a facility that elects to use an existing source test pursuant to subparagraph (k)(1)(C), shall conduct the first subsequent source test no later than January 1, 2024 and conduct all other subsequent source tests pursuant to schedule in Table 3 - Source Tests Schedule.

(F) An owner or operator of facility that elects to meet an emission limit specified in paragraph (h)(2) using only a certified wetting agent chemical fume suppressant or a certified alternative to a wetting agent ~~air pollution control technique~~chemical fume suppressant shall not be subject to the requirements of subparagraph (k)(1)(A).

~~(2) Use of Existing Performance Test~~

~~(A) A performance test conducted prior to July 24, 1997 may be used to demonstrate compliance with applicable interim emission standards specified in (c)(8), (c)(9), (c)(10), and (d)(5), or the mg/dscm emission standard in (c)(14) provided the existing source test is approved by the Executive Officer.~~

~~(B) A performance test conducted after January 1, 2000 may be used to demonstrate compliance with emission standards of paragraph (c)(11) or (c)(14) upon District approval. The owner or operator of the facility shall submit the subject performance test to the District's Compliance Division by February 24, 2009 for evaluation, and shall meet, at a minimum, the following criteria:~~

~~(i) The test demonstrated compliance with the applicable emission limits of paragraph (c)(11) or (c)(14); and~~

~~(ii) The test is representative of the method to control emissions currently in use as of December 5, 2008; and~~

~~(iii) The test was conducted using one of the approved test methods specified in paragraph (c)(3).~~

(k) (~~3~~2) Approved Test Methods

(A) Emissions testing shall be conducted in accordance with one of the following test methods:

(i) CARB Test Method 425, last amended July 28, 1997, (section 94135, Title 17, California Code of Regulations (CCR)); or

(ii) U.S. EPA Method 306, (40 CFR 63 Appendix A) with a minimum of three test runs; or

(iii) SCAQMD Method 205.1, for results reported as total chromium.

(B) Emissions testing ~~from the cover of electroplating and anodizing tanks~~for add-on non-ventilated air pollution control devices shall be conducted in accordance with a Smoke Test for Add-on Non-Ventilated Air Pollution Control Device(s) ~~to Verify the Seal Integrity of Covers Designed to Reduce Chromium Emissions from Electroplating and Anodizing Tanks procedures~~ (See Appendix 5).

(C) Surface tension using a tensiometer shall be measured in accordance with U.S. EPA Method 306B (40 CFR 63 Appendix A). Surface tension using a stalagmometer shall be measured using the procedure set forth in Appendix ~~10~~9, or an alternative procedure approved by the ~~District~~ Executive Officer.

(k) (3) Use of Emissions Screening Tests

(A) The owner or operator of a facility that elects to use an emissions screening test in lieu of a source test to comply with the subsequent source test requirements in Table 3 - Source Tests Schedule shall conduct an emissions screening test:

(i) Consisting of one run to evaluate the hexavalent chromium emissions for a Tier II or Tier III Hexavalent Chromium Tank;

(ii) In accordance with a source test protocol approved by the Executive Officer; and

(iii) Representative of the operating conditions during the most recent source test.

(B) The owner or operator of a facility may conduct an emissions screening test in lieu of a source test to comply with the requirements for an initial source test in Table 3 ─ Source Tests Schedule provided:

(i) The emissions screening test meets the requirements of clauses (k)(3)(A)(i) through (iii);

(ii) The owner or operator of a facility conducted a source test after January 1, 2009 that meets the requirements of clauses (k)(1)(C)(i) through (iii); and

(iii) No later than [30 days after Date of Rule Adoption], an owner or operator of a facility using a source test that is not approved to satisfy clause (k)(3)(B)(ii)~~,~~ shall submit the source test to the Executive Officer for approval.

(C) Within 30 days of receiving the results, the owner or operator of a facility shall submit the results of the emissions screening test to the Executive Officer.

(D) The owner or operator of a facility shall conduct a source test using an approved test method specified under paragraph (k)(2) within 60 days of conducting an emissions screening test that:

(i) Failed the capture efficiency test(s) specified in the source test protocol;

(ii) Exceeded an emission limit specified in the SCAQMD Permit to Operate; or

(iii) Exceeded an emission standard specified in subdivision (h).

(k) (4) ~~Pre-Test~~Source Test Protocol

~~(A) Facilities subject to the provisions of paragraph (e)(1), above, that are either installing new equipment or modifying existing equipment, shall submit a pre-test protocol at least 60 days prior to conducting a performance test. Facilities that are conducting a performance test for existing equipment that require no modification, shall submit a pre-test protocol to the District's Compliance Division no later than 8 months prior to the applicable effective date of Table 2 of paragraph (e)(11).~~

~~(B)~~(A) The ~~pre-test~~source test protocol shall include the ~~performance~~ source test criteria~~of the end user and~~ , all assumptions, required data, and calculated targets for testing the following:

(i) ~~t~~Target chromium concentration;

(ii) ~~p~~Preliminary chromium analytical data; and

(iii) ~~p~~Planned sampling parameters.

~~(C) In addition, the pre-test protocol shall include information on equipment, logistics, personnel, and other resources necessary for an efficient and coordinated test.~~

~~(D)~~(B) The most recent SCAQMD approved source test protocol may be used for subsequent source tests, provided there are no changes to

the tank dimensions, collection slots, ventilation flow rate, sampling location(s), sampling method, or analytic method(s).

(k) (5) Emission Points Test Requirements

Each emission point subject to the requirements of this rule shall be tested unless a waiver is granted by U.S. EPA and approved by the Executive Officer.

~~(6) For any interim alternative compliance option in subdivision (d) that requires the results of a performance test to demonstrate facility-wide emissions or cancer risk, or any facility operating under an alternative compliance method pursuant to paragraph (d)(6), the owner or operator shall submit a performance test conducted pursuant to subdivision (e).~~

(k) ~~(7) (A)~~(6) Capture Efficiency

The owner or operator of a facility that is required to conduct a source test pursuant to subdivision (k) shall ~~using an add-on air pollution control device to comply with the requirements of paragraphs (c)(8) through (c)(13), (d)(5), (d)(6), or any source electing to comply with the mg/dscm emission standard in paragraph (c)(14), shall that all emissions are captured by using a quantitative measurement approved by the District. The demonstration shall be made during any performance test specified in paragraph (e)(1) conducted after December 5, 2008. An example of an approved quantitative measurement is demonstrating that the capture system meets the design criteria and ventilation velocities specified in the American Conference of Governmental Hygienists Industrial Ventilation, A Manual of Recommended Practice.~~ demonstrate that each add on-air pollution control device meets the design criteria and ventilation velocities specified in *A Manual of Recommended Practice for Design* authored by the American Conference of Governmental Industrial Hygienists or alternative design criteria and ventilation velocities approved by the Executive Officer.

(k) ~~(B)~~(7) Smoke Test

The owner or operator of a facility ~~subject to (e)(7)(A) shall periodically conduct a smoke test in order to demonstrate continuous compliance with the capture efficiency of the ventilation system air pollution control device or add-on non-ventilated air pollution control device. The test shall be :~~ shall

conduct an acceptable smoke test for each add-on air pollution control device pursuant to Appendix 5 and each add-on non-ventilated air pollution control device pursuant to Appendix 8.

~~(i) Conducted using the method described in Appendix 9, or any other method deemed acceptable by the Executive Officer;~~

~~(ii) Conducted initially upon start-up for new and modified facilities, and within 60 days of the effective date of this rule for existing facilities; and~~

~~(iii) Conducted periodically by the facility at least once every six months of a previously conducted test.~~

~~(C) The owner or operator of a ventilation system that demonstrates non-compliance with any smoke test shall immediately shutdown, upon discovery, all electroplating or anodizing lines associated with such ventilation systems until a smoke test demonstrating full compliance with subparagraph (e)(7)(B) is achieved.~~

~~(f)~~(l) Certification and Approval of Wetting Agent Chemical Fume Suppressants

~~(1) Any wetting agent chemical fume suppressant used to comply with the requirements of this rule shall be certified by the Executive Officer as able to reduce or suppress hexavalent chromium emissions at the surface of an electroplating or anodizing bath through the reduction of surface tension of the bath to a level at which an emission factor below 0.01 milligrams per ampere hour is achieved. Wetting agent chemical fume suppressants shall meet, at a minimum, a surface tension below 45 dynes/cm, as measured by a stalagmometer, or below 35 dynes/cm, as measured by a tensiometer, unless an alternative is approved pursuant to subdivision (m). The Executive Officer will publish and periodically update a list of certified chemical fume suppressants.~~

(l) (1) The owner or operator of a facility shall not add PFOS based chemical fume suppressants to any chromium electroplating or chromic acid anodizing bath.

(l) (2) The owner or operator of a facility that elects to use a wetting agent chemical fume suppressant to comply with the requirements of this rule shall only use a wetting agent chemical fume suppressant(s) that:

(A) Reduces or suppresses hexavalent chromium emissions at the surface of an electroplating or anodizing bath to meet an emission factor below 0.01 milligrams per ampere hour,

(B) Meets a surface tension below 40 dynes/cm, as measured by a stalagmometer, or below 33 dynes/cm, as measured by a tensiometer, unless an alternative is approved pursuant to subdivision (q), and

(C) Has been certified by the Executive Officer based on a certification process conducted by SCAQMD and CARB.

(l) (3) The owner or operator of a facility shall use a certified wetting agent chemical fume suppressant in accordance with the certification and applicable manufacturer's specifications.

(l) (4) No later than January 1, 2020, the owner or operator of a facility shall be notified by the Executive Officer the status of:

(A) Any wetting agent chemical fume suppressant available on and after July 1, 2021 that meets the requirements specified in paragraphs ~~(l)(1) and~~ (1)(2); and

(B) Any potential wetting agent chemical fume suppressant going through the certification process conducted by SCAQMD and CARB.

(l) (5) ~~Beginning July 1, 2021,~~ If a wetting agent chemical fume suppressant will not be available by July 1, 2021, the owner or operator of a facility shall only add a wetting agent chemical fume suppressant to a chromium electroplating or chromic acid anodizing tank ~~that meets requirements~~ based on the information in the notice as specified by paragraph (l)(4) and~~.~~:

(A) On or before July 1, 2021, meet the hexavalent chromium emission limit specified in Table 1 – Hexavalent Chromium Emission Limits for Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks;

(B) On or before July 1, 2022, phase-out the use of hexavalent chromium in the chromium electroplating or chromic acid anodizing tanks that use a wetting agent chemical fume suppressant that meets the requirements of paragraph (l)(6); or

(C) On or before July 1, 2021 implement an alternative to a wetting agent chemical fume suppressant that meets the requirements of paragraph (l)(7).

(l) (6) ~~In lieu of complying with paragraph (l)(5), t~~The owner or operator of a facility ~~may~~ that elects to meet the requirements of paragraph (l)(5) by phasing out the use of hexavalent chromium in a chromium electroplating or chromic acid anodizing tank shall:

(i) ~~submit a~~No later than January 1, 2021, submit a written and signed commitment to the Executive Officer stating that the facility will phase out by July 1, 2022, the use of hexavalent chromium in the electroplating or chromic acid anodizing tank(s) that use a wetting agent chemical fume suppressant. ~~The owner or operator of a facility may continue to use a wetting agent chemical fume suppressant.~~

(ii) No later than July 1, 2022 cease operating and surrender SCAQMD permits to operate the chromium electroplating or chromic acid anodizing tank(s) that use a wetting agent chemical fume suppressant.

(l) (7) ~~If the notice specified in paragraph (l)(4) indicates that a wetting agent chemical fume suppressant will not be available for use, then beginning July 1, 2021 the owner or operator of a facility may use an alternative to a wetting agent chemical fume suppressant.~~ The owner or operator of a facility that elects to meet the requirements of paragraph (l)(5) by implementing an alternative to a wetting agent chemical fume suppressant, shall submit a permit application for the chromium electroplating or chromic acid anodizing tank(s) that includes the alternative and any conditions specified in the approval of the alternative in paragraph (l)(8).

(l) (8) The alternative to a wetting agent chemical fume suppressant specified in paragraph (l)(7) shall:

(A) Meet an emission limit that is equally effective as the emission limit required for a wetting agent chemical fume suppressant specified in subpargraph (l)(2)(A);

(B) Be approved by the Executive Officer in consultation with CARB to meet the requirement specified in subparagraph (l)(2)(A); and

(C) Be used by the owner or operator in accordance with the approval specified in subparagraph (l)(8)(B).

~~(9) An owner or operator of a facility that elects to use an alternative to a wetting agent chemical fume suppressant shall submit a permit application that~~

~~includes the alternative and any conditions specified in the certification in paragraph (l)(8).~~

(l) (~~10~~9) An owner or operator of a facility that fails to phase out the use of hexavalent chromium by July 1, 2022 pursuant to paragraph (l)(~~7~~6) will be required to cease operation of the electroplating or chromic acid anodizing tank that contains hexavalent chromium until the facility can meet the emission limits specified in paragraph (h)(2) for the subject tank.

(~~g~~m) Parameter Monitoring

(m) (1) Add-On Air Pollution Control Device(s) and Add-On Non Ventilated Air Pollution Control Device(s)

~~(A) Pressure Drop~~

~~The owner or operator shall continuously monitor the pressure drop across an add-on air pollution control device such as a composite mesh-pad (CMP), packed-bed scrubber (PBS), a CMP/PBS, fiber-bed mist eliminator, and a High Efficiency Particulate Arrestors (HEPA) filter with a mechanical gauge. The gauge shall be located so that it can be easily visible and in clear sight of the operation or maintenance personnel. The pressure drop shall be maintained within ± 1 inch of water of the value established during the performance test to demonstrate compliance with the emission limitation for CMP, PBS, a CMP/PBS, and a fiber-bed mist eliminator. The pressure drop shall be maintained within -1/2 times to +2 times the inches of water of the value established during the performance test to demonstrate compliance with the emission limitation for HEPA filters.~~

(~~B~~)(A) ~~Inlet Velocity~~ Pressure and Air Flow

The owner or operator of a facility shall continuously monitor the operation of the add-on air pollution control device by: ~~continuously monitor the inlet velocity pressure of a packed-bed scrubber with a mechanical gauge. The gauge shall be located so that it is easily visible and in clear sight of the operation or maintenance personnel. The inlet velocity pressure shall be maintained within ± 10 percent of the value established during the performance test to demonstrate compliance with the emission limitation.~~

(i) Installing and maintaining a device to measure the applicable pressures and air flows specified in Table 4 – Pressure and Air Flow Measurement Parameters;

(ii) Installing each device so that it is accessible and in clear sight of the operation or maintenance personnel;

(iii) Maintaining all parameters identified in Table 4 – Pressure and Air Flow Measurement Parameters within the range specified in the facility's SCAQMD Permit to Operate;

(iv) Labeling each mechanical gauge with the corresponding acceptable operating ranges established during the most recent source test and within the range specified in the SCAQMD Permit to Operate; and

(v) Maintaining the mechanical gauges in accordance to the requirements in Appendix 4.

Table 4:
Pressure and Air Flow Measurement Parameters

Permitted Air Pollution Control Technique	Location	Parameter Monitored	Units	Monitoring Start Date
Push-Pull Systems	Push Manifold	Static Pressure	Inches of water	60 Days After Completion of Initial Source Test or within [60 Days of Date of Rule Adoption]
All	Collection Manifold or Any Location within the System Using a Flow Meter	Static Pressure or Volumetric Flow Rate	Inches of water or Actual Cubic Feet per Minute	60 Days After Completion of Initial Source Test or within [60 Days of Date of Rule Adoption]
Existing on or Before [Date of Rule Adoption]	Across Each Stage of the Control Device	Differential Pressure	Inches of water	[Date of Rule Adoption]
Installed after [Date of Rule Adoption]	Across Each Stage of the Control Device	Differential Pressure	Inches of water	60 Days After Completion of Initial Source Test

(B) Velocity of Collection Slots

Beginning 60 days after the completion of the initial source test required in Table 3 – Source Tests Schedule and at least once every 180 days thereafter, the owner or operator of a facility shall demonstrate that emissions are captured by the add-on air pollution control device that meets the requirements in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring using any of the following:

(i) A hot-wire anemometer;

(ii) A vane anemometer; or

(iii) A device or method approved by the Executive Officer.

Table 5: Add-on Air Pollution Control Device Parameter Monitoring

	Collection Slot(s) Velocity[1]	**Push Air Manifold Pressure (for push-pull systems only)**	**Required Action**
Row 1: Acceptable Measurement	> 95% of the most recent passing source test or emission screening; or ≥ 2,000 fpm	95-105% compared to the most recent passing source test or emission screening	None
Row 2: Repairable Measurement	90-95% of the most recent passing source test or emission screening test, or < 2,000 fpm and > 1,800 fpm	90-95% or 105-110% of the most recent passing source test or emission screening test	Repair or replace, and re-measure within 3 calendar days of measurement
Row 3: Failing Measurement	< 90% of the most recent passing source test or emission screening test, or <1,800 fpm	> 110% or < 90% of the most recent passing source test or emission screening test	Immediately shut down any tanks controlled by the add-on air pollution control device that had a failing measurement

[1] If the measured slot velocity appears~~occurs~~ in multiple rows, the owner or operator shall implement the required action in the lower numbered row. For example the owner or operator would implement the required action in Row 2, if the measured slot velocity shows a repairable measurement (row 2) or a failing measurement (row 3).

(C) Repairable Measurements

~~The owner or operator of a facility with an add-on air pollution control device that demonstrates a repairable measurement shall correct in a timely manner as specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring.~~

The owner or operator of a facility with an add-on air pollution control device for a Tier II or Tier III Hexavalent Chromium Tank that demonstrates a repairable measurement according to Table 5 – Add-on Air Pollution Control Device Parameter Monitoring shall:

(i) Perform the required action specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring for a repairable measurement,

(ii) Demonstrate an acceptable measurement within the time period established for the required action specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring, and

(iii) Immediately shutdown the Tier II or Tier III Hexavalent Chromium Tank if an acceptable measurement is not demonstrated within the time period established for the required action specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring. The tank shall remain shutdown until an acceptable measurement is measured.

(D) Failing Measurements

~~Upon failure to correct a repairable measurement in a timely manner or detection of a failing measurement, the owner or operator of a facility shall shut down a tank controlled by an add-on air pollution control device until the collection slot velocity and/or push air manifold pressure are within the acceptable measurement range.~~ The owner or operator of a facility with an add-on air pollution control device for a Tier II or Tier III Hexavalent Chroium Tank that demonstrates a failing measurement according to Table 5 – Add-on Air Pollution Control Device Parameter Monitoring shall perform the required action specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring for a failing measurement. The tank shall remain shutdown until an acceptable measurement is measured.

(E) Smoke Test Requirements

Once every 180 days the owner or operator of a facility subject to subparagraph (k)(7) shall conduct a smoke test:

(i) Using a method described in Appendix 5, Appendix 8, or any other method deemed acceptable by the Executive Officer; and

(ii) Within 30 days of start-up for new and modified add-on air pollution control devices or add-on non-ventilated air pollution control devices.

(F) Failure of Smoke Test

The owner or operator of a facility shall immediately shut down all Tier II and Tier III Hexavalent Chromium Tanks associated with the add-on air pollution control device or add-on non-ventilated air pollution control device if ~~conduct~~ an acceptable smoke test for each add-on air pollution control device pursuant to Appendix 5 and each add-on non-ventilated air pollution control device pursuant to Appendix 8 ~~If an acceptable smoke test~~is not conducted.~~,~~ ~~shall immediately shutdown all Tier II and Tier III Hexavalent Chromium Tanks associated with add-on air pollution control device or add-on non-ventilated air pollution control device~~The Tier II and Tier III Hexavalent Chromium Tank shall remain shut down until an acceptable smoke test is conducted.

(G) HEPA Filters

Beginning 60 days after completion of the initial source test required by subdivision (k), the owner or operator of a facility with an add-on air pollution control device equipped with HEPA filters shall ensure that the device to monitor pressure drop pursuant to subparagraph (m)(1)(A):

(i) Is equipped with ports to allow for periodic calibration in accordance with manufacturer specifications;

(ii) Is calibrated according to manufacturer specifications at least once every calendar year; and

(iii) Is maintained in accordance with manufacturer specifications.

(m) (2) Wetting Agent Chemical Fume Suppressants (Excluding Decorative Chromium Electroplating Tanks Using a Trivalent Chromium Bath)

(A) The owner or operator of a facility shall monitor the surface tension of the chromium electroplating or chromic acid anodizing tank that contains a certified wetting agent chemical fume suppressant with either a stalagmometer or tensiometer using the applicable method pursuant to subparagraph ~~(e)(3)(C)~~(k)(2)(C). The surface tension shall be maintained below the respective value established in the list

of certified wetting agent chemical fume suppressants pursuant to subdivision ~~(f)~~(l), or at or below a ~~more stringent~~ value specified in the SCAQMD Permit to Operate~~ conditions or approved Compliance Plan conditions~~. ~~Surface tension shall be measured daily for 20 operating days, and weekly thereafter as long as there is no violation of the surface tension requirement. If a violation occurs, the measurement frequency shall return to daily for 20 operating days, and weekly thereafter.~~

(B) The owner or operator of a facility shall measure the surface tension every third operating day but not less than once per week.

(C) If at any time the surface tension required by subparagraph (m)(2)(A) is not maintained, the owner or operator of a facility shall measure the surface tension:

(i) Daily for 20 consecutive operating days; and

(ii) Resume the measurement schedule pursuant to subparagraph (m)(2)(B).

(D~~B~~) The owner or operator of a facility operating under an approved alternative compliance method pursuant to ~~paragraph (d)(6)~~subdivision (i), and using chemical fume suppressants as all or partial control of hexavalent chromium emissions ~~must~~ shall measure and monitor the surface tension of the electroplating or anodizing ~~bath~~ bath each operating day ~~daily~~. The surface tension ~~must~~ shall be maintained at or below the surface tension measured during the ~~performance~~source test.

(m) (3) Fume Suppressants Forming a Foam Blanket

(A) The owner or operator of a facility shall maintain the foam blanket thickness across the surface of the chromium electroplating or chromic acid anodizing tank established during the most recently approved source test to demonstrate compliance with the emission limit specified in paragraphs (h)(2) or (h)(4).

(B) The owner or operator of a facility shall measure the foam blanket thickness each operating day.

(C) If at any time the foam blanket thickness required by subparagraph (m)(3)(A) is not maintained, the owner or operator of a facility shall measure the foam blanket thickness:

(i) Hourly for 15 consecutive operating days; and

(ii) Resume the measurement schedule pursuant to subparagraph (m)(3)(B).

~~The owner or operator shall monitor the foam blanket thickness across the surface of the chromium electroplating or chromic acid anodizing tank. The foam blanket thicknessshall be maintained consistent with the requirements established during the performance test to demonstrate compliance with the emission limitation. Foam thickness shall be measured hourly for 15 operating days, and daily thereafter as long as there is no violation of the foam thickness requirement. If a violation occurs, the measurement frequency shall return to hourly for 15 operating days, and daily thereafter.~~

(m) (4) Polyballs or Similar Mechanical Fume Suppressants

The owner or operator of a facility shall visually inspect the Tier II or Tier III Hexavalent Chromium Tank ~~chromium electroplating or chromic acid anodizing tank for~~and maintain coverage comparable to the coverage during the ~~performance~~ source test ~~daily~~each operating day.

(~~h~~n) Inspection, ~~and~~ Operation, and Maintenance Requirements

(n) (1) Inspection and Maintenance

(A) The owner or operator of a facility using an add-on air pollution control device or add-on non-ventilated air pollution control device shall comply with the applicable inspection and maintenance requirements listed in Table 4-1 of Appendix 4.

(B) The owner or operator of a facility using an add-on air pollution control device or add-on non-ventilated air pollution control device custom designed for a specific operation shall develop operating and maintenance requirements for approval by the Executive Officer. The requirements and frequency of inspection shall be sufficient to ensure compliance.

~~Owners or operators of hexavalent chromium electroplating and chromic acid anodizing operations using an add-on air pollution control device shall comply with the applicable inspection and maintenance requirements listed in Table 4. The owner or operator of an add-on air pollution control device custom designed for a specific operation shall develop operating and maintenance requirements. The requirements shall be submitted to the~~

~~District for review and approval no later than 120 days after the effective date of this rule for custom systems existing before December 5, 2008, and prior to initial start-up for custom systems installed on or after December 5, 2008. The requirements and frequency of inspection must be sufficient to ensure compliance.~~

~~Table 4~~
~~Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s)~~

~~Control Technique/Equipment~~	~~Inspection and Maintenance Requirements~~	~~Frequency~~
~~Composite mesh pad (CMP) system.~~	~~1. Visually inspect device to ensure that there is proper drainage, no unusual chromic acid buildup on the pads, and no evidence of chemical attack that affects the structural integrity of the device.~~	~~1. Once per quarter.~~
	~~2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.~~	~~2. Once per quarter.~~

Table 4
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
	3. Visually inspect ductwork from tank to the control device to ensure there are no leaks.	3. Once per quarter.
	4. Perform washdown of the composite mesh pads in accordance with manufacturer's recommendations.	4. Per manufacturer.
Packed bed scrubber (PBS)	1. Visually inspect device to ensure there is proper drainage, no unusual chromic acid buildup on the packed beds, and no evidence of chemical attack that affects the structural integrity of the device.	1. Once per quarter.
	2. Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist.	2. Once per quarter.
	3. Same as number 3 above for CMP system.	3. Once per quarter.
	4. Add fresh makeup water to the packed bed[A].	4. Whenever makeup is added.
PBS/CMP system	1. Same as for CMP system.	1. Once per quarter.
	2. Same as for CMP system.	2. Once per quarter.
	3. Same as for CMP system.	3. Once per quarter.
	4. Same as for CMP system	4. Per manufacturer.

[A] Horizontal packed-bed scrubbers without continuous recirculation must add make-up water to the top of the packed bed.

~~Table 4~~
~~Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) (cont)~~

~~Control Technique/Equipment~~	~~Inspection and Maintenance Requirements~~	~~Frequency~~
~~Fiber-bed mist eliminator[B]~~	~~1. Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no unusual chromic acid buildup in the units, and no evidence of chemical attack that affects the structural integrity of the devices.~~	~~1. Once per quarter.~~
	~~2. Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks.~~	~~2. Once per quarter.~~
	~~3. Perform washdown of fiber elements in accordance with manufacturer's recommendations.~~	~~3. Per manufacturer.~~
~~High Efficiency Particulate Arrestors filter (HEPA)~~	~~1. Look for changes in the pressure drop.~~	~~1. Once per week.~~
	~~2. Replace HEPA filter.~~	~~2. Per manufacturer's specifications or District's requirement.~~
~~Chromium Tank Covers~~	~~1. Drain the air inlet (purge air) valves at the end of each day that the tank is in operation.~~	~~1. Once per day.~~
	~~2. Visually inspect access door seals and membranes for integrity.~~	~~2. Once per week.~~
	~~3. Drain the evacuation unit directly into the electroplating tank or into the rinse tanks (for recycle into the electroplating tank).~~	~~3. Once per week.~~

~~[B] Inspection and maintenance requirements for the control device installed upstream of the fiber-bed mist eliminator to prevent plugging do not apply as long as the inspection and maintenance requirements for the fiber-bed unit are followed.~~

~~Table 4~~
~~Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) (cont)~~

~~Control Technique/Equipment~~	~~Inspection and Maintenance Requirements~~	~~Frequency~~
	~~4. Visually inspect membranes for perforations using a light source that adequately illuminates the membrane (e.g., Grainger model No. 6X971 Fluorescent Hand Lamp).~~	~~4. Once per month.~~
	~~5. Visually inspect all clamps for proper operation; replace as needed.~~	~~5. Once per month.~~
	~~6. Clean or replace filters on evacuation unit.~~	~~6. Once per month.~~
	~~7. Visually inspect piping to, piping from, and body of evacuation unit to ensure there are no leaks and no evidence of chemical attack.~~	~~7. Once per quarter.~~
	~~8. Replace access door seals, membrane evacuation unit filter, and purge air inlet check valves in accordance with the manufacturer's recommendations.~~	~~8. Per manufacturer.~~
~~Pitot tube~~	~~Backflush with water, or remove from the duct and rinse with fresh water. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained. Check Pitot tube ends for damage. Replace Pitot tube if cracked or fatigued.~~	~~Once per quarter.~~
~~Ampere-hour meter~~	~~Install and maintain per manufacturer's specifications.~~	~~Per manufacturer.~~

(n) (2) ~~Hard and decorative chromium electroplating, and chromic acid anodizing operations~~ The owner or operator of a facility using chemical fume suppressants ~~(i.e. wetting agent, foam)~~ or mechanical fume suppressants ~~(i.e., polyballs)~~ shall comply with the applicable inspection and maintenance requirements in Table 4-4 of Appendix 4.

(n) (3) Beginning [90 Days After Date of Rule Adoption], the owner or operator of a facility operating a Tier II Hexavalent Chromium Tank that is not controlled by an add-on air pollution control device shall comply with the

applicable inspection and maintenance requirements in Table 4-3 of Appendix 4.

(n) (4) Beginning [90 Days After Date of Rule Adoption], the owner or operator of a facility operating a Tier I, Tier II, and Tier III Hexavalent Chromium Tank shall comply with the applicable inspection and maintenance requirements in Table 4-2 of Appendix 4.

~~Table 5~~
~~Summary of Inspection and Maintenance Requirements for Sources Using Chemical or Mechanical Fume Suppressants~~

~~Equipment~~	~~Inspection and Maintenance Requirement for Monitoring Equipment~~	~~Frequency~~
~~Ampere-hour meter~~	~~Install and maintain per manufacturer's specifications.~~	~~Per manufacturer.~~
~~Stalagmometer/ Tensiometer~~	~~Calibrate and maintain per manufacturer's specifications.~~	Per manufacturer.

~~(i) Operation and Maintenance Plan Requirements~~

(n) ~~(1)~~(5) Operation and Maintenance Plan

The owner or operator of a facility subject to the inspection and maintenance requirements of paragraphs ~~(h)(1) and (h)(2)~~(n)(1), (n)(2), (n)(3), or (n)(4) shall prepare an operation and maintenance plan. For major sources, the plan shall be incorporated by reference into the source's Title V permit. The plan shall incorporate the inspection and maintenance requirements for that device or monitoring equipment, as identified in Tables 4-1, ~~and~~ 4-2, 4-3, and 4-4~~5~~ of Appendix 4, and shall include the following elements:

(A) A standardized checklist to document the operation and maintenance of the source, the add-on air pollution control device, and the process and control system monitoring equipment; and

(B) Procedures to be followed to ensure that equipment is properly maintained.

~~The owner or operator may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided the alternative plans meet the requirements of this subdivision.~~

(n) (6) Notwithstanding the operation and maintenance plan required by paragraph (n)(5), the owner or operator of a facility may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans, provided the alternative plans meet the requirements of this subdivision.

(n) ~~(2)~~(7) Operation and Maintenance Plan Availability

The owner or operator of a facility shall keep the written operation and maintenance plan on record after it is developed, to be made available for inspection, upon request.

(n) ~~(3)~~(8) Operation and Maintenance Plan Modifications

Any changes made by the owner or operator of a facility ~~should~~ shall be documented in an addendum to the plan. In addition, the owner or operator of a facility shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for inspection, upon request, for a period of 5 years after each revision to the plan.

~~(4) Breakdown Provisions In Operation and Maintenance Plan~~

~~The operation and maintenance plan shall be revised as necessary to minimize breakdowns.~~

(n) (9) Amended Operation and Maintenance Plan

No later than [90 Days After Date of Rule Adoption], the facility's operation and maintenance plan shall be revised and made available upon request to the Executive Officer to reflect the incorporation of the inspection and maintenance requirements for a device or monitoring equipment that is identified in Table 4-2 and Table 4-3 of Appendix 4 and shall include the elements required in subparagraphs (n)(5)(A) and (n)(5)(B).

(n) (10) Replacement of Ampere-Hour Meter

Prior to replacement of a continuous recording non-resettable ampere-hour meter that is required under paragraph (d)(1), the owner or operator of a facility shall photograph the actual ampere-hour reading of:

(A) The ampere-hour meter being replaced; and

(B) The new ampere-hour meter immediately after installation.

(~~j~~o) Recordkeeping

(o) (1) Inspection ~~r~~Records for ~~s~~Sources ~~u~~Using an ~~a~~Add-on ~~control a~~Air ~~p~~Pollution ~~c~~Control ~~d~~Device~~s~~ or Non-Ventilated Air Pollution Control Device ~~:~~

The owner or operator of a facility shall maintain inspection records to document that the inspection and maintenance requirements of subdivision ~~(h)~~(n) ~~and Tables 4 and 5~~, and that the provisions of the operation and maintenance plan required by subdivision ~~(i)~~(n) have been met. The record can take the form of a checklist and ~~should~~shall identify:

(A) ~~t~~The device inspected;

(B) ~~t~~The date and time of inspection;

(C) ~~a~~A brief description of the working condition of the device during the inspection;

(D) ~~m~~Maintenance activities performed on the components of the air pollution control system (i.e. duct work replacement, filter pad replacement, fan replacement, etc.); and

(E) ~~a~~Any actions taken to correct deficiencies found during the inspection.

(o) (2) Inspection Records for Sources Using Chemical ~~Fume Suppressants (i.e. wetting agent, foam)~~ or Mechanical Fume Suppressants ~~(i.e., polyballs).~~

The owner or operator of a facility shall maintain inspection records to document that the applicable inspection and maintenance requirements of paragraphs ~~(h)(2)~~(n)(1), (n)(2), (n)(3), and (n)(4) ~~and Tables 4 and 5~~ have been met. The record can take the form of a checklist.

(o) (3) ~~Performance~~ Source Test, Capture Efficiency, and Smoke Test Records

The owner or operator of a facility shall maintain ~~test reports and records documenting~~ the conditions and results of all ~~performance~~ source tests, capture efficiency tests, emissions screening test, and smoke tests required by subdivision (k)~~(e)~~. The records shall include ~~performance~~ source test results required to determine compliance with paragraph ~~(g)(1)~~(m)(1), including the pressure drop established during the ~~performance~~ source test to demonstrate compliance with the applicable emission limitation ~~for composite mesh pad (CMP), packed bed scrubber (PBS), and CMP/PBS, and a fiber-bed mist eliminator and the inlet velocity pressure established during the performance test to demonstrate compliance with the emission limitation~~.

(o) (4) Monitoring Data Records

The owner or operator of a facility shall maintain records of continuously recorded ampere-hour data required by paragraph ~~(c)~~(d)(1) and monitoring data required by subdivision (m)~~(g) that are used to demonstrate compliance with the requirements of subdivision (c) and subdivision (d), if applicable, including the date and time the data are collected~~.

(A) Cumulative Rectifier Usage Records

The owner or operator of a facility shall, on a monthly basis, record the actual cumulative rectifier usage expended during each month of the reporting period, and the total usage expended to date.

~~(B) Pressure Drop~~

~~The owner or operator shall record the pressure drop once a week. The pressure drop shall be recorded daily beginning February 1, 2009.~~

(B)~~(C)~~ ~~Inlet Velocity~~ Pressure and Air Flow Measurements

The owner or operator of a facility shall record the ~~inlet velocity~~applicable pressures and air flow as specified in Table 5 – Add-on Air Pollution Control Device Parameter Monitoring of subdivision (m) once a week.~~ The inlet velocity pressure shall be recorded daily beginning~~ February 1, 2009.~~

(o) (5) ~~(D)~~ Surface Tension Records

~~(i)~~(A) The owner or operator of a facility shall record the surface tension pursuant to the requirements of paragraph (m)(2).~~daily for 20 operating days, and weekly thereafter as long as there is no violation of the surface tension requirement. If the surface tension exceeds the respective value established in the list of certified chemical fume suppressants pursuant to subdivision (f), or a more stringent value specified in permit conditions or approved Compliance Plan conditions, the owner or operator shall again record the surface tension daily for 20 operating days, and weekly thereafter~~

~~(ii)~~(B) For facilities operating under an approved alternative compliance method pursuant to ~~paragraph (d)(6)~~subdivision (i), and using chemical fume suppressants as all or partial control of hexavalent chromium emissions, the owner or operator of the facility shall

record the surface tension of the electroplating or anodizing bath daily.

(o) (6) Mechanical Fume Suppressant and Foam Blankets Records

(A) The owner or operator of a facility that is required to measure the foam blanket thickness pursuant to paragraph (m)(3), shall record the foam thickness.

(B) The owner or operator of a facility using polyballs or other mechanical fume suppressants to comply with the emission standards of subdivision (h) or (i), shall record the coverage of the electroplating or anodizing bath daily. Coverage shall be reported as a percentage of bath surface area.

~~(E) Mechanical Fume Suppressant and Foam Blankets~~

~~(i) The owner or operator using a foam blanket to comply with the emission standards of subdivision (c) or (d), shall record the foam thickness. hourly for 15 operating days, and daily thereafter as long as there is no violation of the foam thickness requirement. If a violation occurs, the measurement frequency shall return to hourly for 15 operating days, and daily thereafter.~~

~~(ii) The owner or operator using polyballs or other mechanical fume suppressants to comply with the emission standards of subdivision (c) or (d), shall record the coverage of the electroplating or anodizing bath daily. Coverage shall be reported as a percentage of bath surface area.~~

~~(5) Breakdown Records~~

~~The owner or operator shall maintain records of the occurrence, duration, and cause (if known) and action taken on each breakdown.~~

(o) ~~(6)~~(7) Records of Excesses

The owner or operator of a facility shall maintain records of exceedances of: the emission limitations in subdivisions ~~(c) and (d)~~(h) and (i), the parameter monitoring ~~parameter~~ values established under subdivision ~~(g)~~(m), or any site-specific operating parameters established for alternative equipment. The records shall include the date of the occurrence, the duration, cause (if known), and, where possible, the magnitude of any excess emissions.

(o) (8) Housekeeping and Best Management Practice Records

~~(7)~~ The owner or operator of a facility shall maintain records demonstrating compliance with housekeeping practices and best management practices, as required by ~~paragraph (c)(4)~~subdivisions (f) and (g), including the dates on which specific activities were completed, and records showing that chromium or chromium-containing wastes have been stored, disposed of, recovered, or recycled using practices that do not lead to fugitive emissions~~dust~~.

(o) ~~(8)~~(9) Records of Fume Suppressant Additions

For sources using fume suppressants to comply with the standards, the owner or operator of a facility shall maintain records of the date, time, approximate volume, and product identification of the fume suppressants that are added to the electroplating or anodizing bath.

(o) ~~(9)~~(10) Records of Trivalent Bath Components

For sources complying with paragraph ~~(c)(14)~~(h)(3) using trivalent chromium baths, the owner or operator of a facility shall maintain records of the bath components purchased, with the wetting agent clearly identified as a bath constituent contained in one of the components.

(o) ~~(10)~~(11) Records of Filter Purchase and Disposal

For sources using add-on air pollution control devices to comply with the standards, the owner or operator of a facility shall retain purchase orders for filters and waste manifest records for filter disposal.

~~(11) New/Modified Source Review Information~~

~~The owner or operator shall maintain records supporting the notifications and reports required by the District's new source review provisions and/or subdivision (l).~~

(o) (12) Records Retention

All records shall be maintained for five years, at least two years on site.

(~~k~~p) Reporting

(p) (1) ~~Performance~~ Source Test Documentation

(A) Notification of ~~Performance~~ Source Test

At least 60 calendar days before the source test is scheduled to occur, the owner or operator of a facility shall notify the Executive Officer that a source test will be conducted.

~~(i) The owner or operator of a source shall notify the Executive Officer that a performance test shall be conducted at least 60 calendar days before the performance test is scheduled.~~

~~(ii) The provisions in clause (k)(1)(A)(i), above, do not apply if the performance test was conducted prior to July 24, 1997 and was approved by the Executive Officer and the U.S. EPA.~~

(B) Reports of ~~Performance~~ Source Test Results

The owner or operator of a facility shall report ~~performance~~ source test results to the Executive Officer. Reports of ~~performance~~ source test results shall be submitted no later than 90 calendar days following the completion of the required ~~performance~~ source test, and shall be submitted as part of the notification of compliance status required by paragraphs ~~(k)~~(p)(2) and (p)(3).

(C) The ~~content of performance~~ source test reports shall contain, at a minimum, the information identified in Appendix 1.

(p) (2) Initial Compliance Status Report

An initial compliance status report is required each time that a source becomes subject to the requirements of this rule. The owner or operator of a facility shall submit to the Executive Officer an initial compliance status report, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with this rule.

(A) Initial Compliance Status Report Due Date

The initial compliance status report for existing facilities shall be submitted to the Executive Officer no later than April 24, 2008. New or modified facilities shall submit the initial compliance status report upon start-up.

(B) The initial compliance status report shall contain, at a minimum, the information identified in Appendix 2.

(p) (3) Ongoing Compliance Status and Emission Reports

The owner or operator of a facility shall submit a summary report to the Executive Officer to document the ongoing compliance status.

(A) Frequency of Ongoing Compliance Status and Emission Reports

The report shall be submitted each calendar year on or before February 1 for all sources and shall include information covering the preceding calendar year (January 1 through December 31).

(B) The ~~content of~~ ongoing compliance status and emission reports shall, at a minimum, contain the information identified in Appendix 3.

(p) (4) ~~Reports of Breakdowns~~Notification of Incident

(A) The owner or operator of a facility shall ~~report breakdowns as required by District Rule 430~~notify the Executive Officer within four hours of the incident or within four hours from the time the owner or operator of a facility knew or reasonably should have known of, any failed smoke test, any failed source test, any exceedance of a permitted ampere-hour limit, or any malfunction of a non-resettable ampere-hour meter by calling 1-800-CUT SMOG. In the cases of emergencies that prevent the owner or operator of a facility from reporting all required information within the four hour limit, the Executive Officer may extend the time for reporting the required information provided such owner or operator of a facility has notified the Executive Officer of the incident within 24-hours. The notification shall include the following information~~.~~:

(i) Date and time of the incident and when it was discovered;

(ii) Specific location and equipment involved;

(iii) Responsible party to contact for further information;

(iv) Causes of the incident, to the extent known; and

(v) Estimated time for repairs and correction.

(B) Within seven calendar days after a reported incident has been corrected, but no later than thirty calendar days from the initial date of the incident, unless an extension has been approved in writing by the Executive Officer, the owner or operator of a facility shall submit a written incident report to the Executive Officer that includes:

(i) An identification of the equipment involved in causing, or suspected of having caused, or having been affected by the incident;

(ii) The duration of the incident;

(iii) The date of correction and information demonstrating that compliance is achieved;

(iv) An identification of the types of emissions, if any, resulting from the incident;

(v) A quantification of the excess emissions, if any, resulting from the incident and the basis used to quantify the emissions;

(vi) Information substantiating that steps were immediately taken to correct the condition causing the incident, and to minimize the emissions, if any, resulting from the incident;

(vii) Written verification that the facility is operating in compliance with this rule. If the facility is not in compliance with this rule, provide an approximate date the facility is expected to be in compliance;

(viii) A description of the corrective measures undertaken and/or to be undertaken to avoid such an incident in the future; and

(ix) Pictures of the equipment that failed, if available.

(p) (5) Reports Associated with Trivalent Chromium Baths Exclusively Using a Chemical Fume Suppressant Containing a Wetting Agent

Owners or operators ~~with~~ switching to trivalent chromium baths exclusively using a ~~certified~~ chemical fume suppressant containing a wetting agent to comply with subparagraph ~~(c)(14)(A)~~(h)(3)(A) are not subject to paragraphs (p)(1) through (p)(3) ~~of this subdivision~~, but shall instead submit ~~the following~~ a report~~s~~ within 30 days of a change to the trivalent chromium electroplating process that includes:

~~(A) Sources Currently Using Trivalent Chromium~~

~~No later than November 24, 2007, the owner or operator of an existing facility shall submit a notification of compliance status that contains the information specified in (k)(5)(A)(i) through (iii). New and modified facilities shall submit this information within 30 days after the effective date of this rule~~.

~~(i) The name and address of each source subject to this paragraph;~~

~~(ii) A statement that a trivalent chromium process that incorporates a wetting agent will be used to comply; and~~

~~(iii) The list of bath components that comprise the trivalent chromium bath, with the wetting agent clearly identified.~~

~~(B) Sources Changing to Trivalent Chromium~~

~~Within 30 days of a change to the trivalent chromium electroplating process, a report that includes:~~

(A) ~~(i)~~ A description of the manner in which the process has been changed and the emission limitation, if any, now applicable to the source; and

(B) ~~(ii)~~ The notification and reporting requirements of paragraphs (p)(1), (p)(2), and (p)(3) ~~of this subdivision~~, if the ~~source complies~~facility complies with the emission limitation option, or paragraph (p)(5) ~~of this subdivision~~, if the source uses a wetting agent to comply. The report shall be submitted in accordance with the schedules identified in those paragraphs.

(p) (6) Adjustments to the Timeline for Submittal and Format of Reports

The Executive Officer may adjust the timeline for submittal of periodic reports, allow consolidation of multiple reports into a single report, establish a common schedule for submittal of reports, or accept reports prepared to comply with other state or local requirements. Adjustments shall provide the same information and shall not alter the overall frequency of reporting.

~~(l) New and Modified Sources~~

~~(1) Notification of Construction~~

~~After the effective date of this rule no person may construct or modify a source, such that it becomes a source subject to this section, without submitting a notification of construction or modification to the Executive Officer and receiving approval in advance to construct or modify the source. The contents of the Notification of Construction shall include information as listed in Appendix 4.~~

~~(2) New Source Review Rules~~

~~In lieu of complying with the requirements in paragraph (l)(1) of this subdivision, a facility may fulfill these requirements by complying with the District's new source review rule or policy, provided similar information is obtained.~~

(~~m~~q) Procedure for Establishing Alternative Requirements

(q) (1) Request Approval of an Alternative Requirement

Any person may request approval of an alternative requirement. The person seeking such approval shall submit the proposed alternative requirement to the Executive Officer for approval. The request shall include the proposed alternative requirement, the reason for requesting the alternative requirement, and information demonstrating that the criteria for approval identified in Appendix 6 is met.

(q) (2) Approval of an Alternative Requirement

The Executive Officer may approve an alternative requirement if it determines that application of the alternative requirement meets the criteria for approval identified in Appendix 6 and the Executive Officer has submitted the proposed alternative requirements and has received concurrence from the applicable concurring agencies identified in Appendix 6.

(q) (3) Approval Criteria

Nothing in this subdivision prohibits the Executive Officer from establishing approval criteria more stringent than that required in Appendix 6.

(q) (4) Alternatives Already Approved by U.S. EPA

Waivers for alternatives already approved by the U.S. EPA prior to October 24, 2007 shall remain in effect until the effective dates of the specified requirements become effective.

(~~n~~r) Exemptions

~~(1) This rule shall not apply to process tanks associated with a chromium electroplating or chromic acid anodizing process in which neither chromium electroplating nor chromic acid anodizing is taking place. Examples of such tanks include, but are not limited to, rinse tanks, etching tanks, and cleaning tanks. Tanks that contain a chromium solution in which no electrolytic process occurs, are not subject to this rule. An example of such a tank is a chromium conversion coating tank where no electrical current is applied.~~

(r) ~~(2)~~(1) The requirements of subdivisions ~~(g), (h), and (i)~~(m) and (n) do not apply to decorative chromium electroplating tanks using a trivalent chromium bath with a wetting agent.

~~(3) The requirements of paragraphs (c)(8) through (c)(14), (d)(5) and (d)(6), and subdivision (i) do not apply during periods of equipment breakdown, provided the provisions of District Rule 430 are met, notwithstanding subparagraph (b)(3)(B) of Rule 430.~~

(r) (2) The requirements of paragraphs (f)(6), (g)(4), and (g)(5) do not apply to buffing, grinding, or polishing operations conducted under a continuous flood of metal removal fluid.

~~(o) Title V Permit Requirements~~

~~The owner or operator of a major source facility subject to the requirements of this section is required to obtain a Title V permit from the District in accordance with the procedures set forth in District Regulation XXX.~~

(~~p~~s) Rule 1402 Inventory Requirements

The owner or operator of ~~chromium electroplating or chromic acid anodizing tanks at~~ a facility that is in compliance with this rule will not be required to submit an emission inventory to the Executive Officer for emissions of toxic compounds subject to this rule, pursuant to ~~subparagraph (n)(1)(B)~~paragraph (p)(1) of Rule 1402 - Control of Toxic Air Contaminants from Existing Sources.

~~(q) Chromium Electroplating or Chromic Acid Anodizing Kits Requirements~~

~~(1) Except as provided in paragraph (q)(2), no person shall sell, supply, offer for sale, or manufacture for sale in the District, any chromium electroplating or chromic acid anodizing kit.~~

~~(2) The provisions of paragraph (q)(1) do not apply to any person that sells, supplies, offers for sale, or manufactures for sale in the District a chromium electroplating or chromic acid anodizing kit to the owner or operator of a permitted facility at which chromium electroplating or chromic acid anodizing is performed.~~

~~(3) No person shall use a chromium electroplating or chromic acid anodizing kit to perform chromium electroplating or chromic acid anodizing unless these activities are performed at a permitted facility that complies with the requirements of this rule.~~

~~(4) For the purposes of this section, "chromium electroplating or chromic acid anodizing kit" means chemicals and associated equipment for conducting chromium electroplating or chromic acid anodizing including, but not limited to, internal and external tank components.~~

(t) Conditional Requirements for Permanent Total Enclosure

(t) (1) The owner or operator of a facility shall install a Permanent Total Enclosure ~~for a Tier III Hexavalent Chromium Tank with a combined area of all enclosure openings~~ that does not exceed 3.5% for all enclosure openings, as specified in paragraph (e)(1) ~~if~~ for a Tier III hexavalent chromium tank:

(A) That results in ~~M~~more than one non-passing source test as required in paragraph (k)(1) occuring within a consecutive 48-month period; or

(B) ~~The owner or operator of a facility meet the requirements to~~ That is not immediately shut down ~~a tank controlled by an add-on air pollution control device specified in subparagraphs (m)(1)(D) or (m)(1)(F):~~ pursuant to clause (m)(1)(C)(iii), subparagraph (m)(1)(D) or subparagraph (m)(1)(F):

(i) More than once within a consecutive 48-month period for a facility that is located more than 1,000 feet from a sensitive receptor; or

(ii) Once for a facility that is located less than or equal to 1,000 feet from a sensitive receptor.

(t) (2) Within 30 days of the date of notification by the Executive Officer that a Permanent Total Enclosure is required, the owner or operator of facility may submit a written report to the Executive Officer providing evidence that the installation of a Permanent Total Enclosure is not warranted based on the following criteria:

(A) The incidents of non-compliance specified in paragraph (t)(1) did not occur; or

(B) The owner or operator of a facility resolved the incidents of non-compliance specified in paragraph (t)(1) in a timely manner; and

(C) The owner or operator of a facility implemented specific measures to minimize hexavalent chromium emissions.

(t) (3) The Executive Officer shall use the information provided by the owner or operator of a facility to determine if a permanent total enclosure is required and will notify the owner or operator of a facility within 90 days of receiving the written report.

(t) (4) The owner or operator of a facility required to install a permanent total enclosure pursuant to subdivision (t) shall vent the permanent total enclosure

to an add-on air pollution control device that is fitted with HEPA filters, or other filter media that is rated by the manufacturer to be equally or more effective; and designed in a manner that does not conflict with requirements or guidelines set forth by OSHA or CAL-OSHA regarding worker safety, or the National Fire Protection Association regarding safety.

(t) (5) The owner or operator of a facility required to install a permanent total enclosure pursuant to subdivision (t) shall install the permanent total enclosure no later than 12 months after the SCAQMD Permit to Construct is issued by the Executive Officer. The owner or operator of a facility shall submit complete SCAQMD permit applications for the permanent total enclosure to the Executive Officer no later than:

(A) 180 days after notification by the Executive Officer if the property line of the facility is within 500 feet of the property line of any sensitive receptor.

(B) 270 days after notification by the Executive Officer for all other facilities.

(u) Hexavalent Chromium Phase-Out Plan

(u) (1) The owner or operator of a facility shall not be subject to the requirements of paragraph (h)(4) to vent a Tier III Hexavalent Chromium Tank, existing on or before [Date of Rule Adoption], to an add-on air pollution control device, if the owner or operator of a facility submits a Hexavalent Chromium Phase-Out Plan to the Executive Officer for review and approval no later than [90 Days after Date of Rule Adoption] containing the following:

(A) A commitment that the facility will permanently eliminate or reduce hexavalent chromium concentrations within the subject tank to below the concentration ~~to be considered~~ of the definition of a Tier II or Tier III Hexavalent Chromium Tank;

(B) A description of the method by which hexavalent chromium concentrations will be permanently eliminated or reduced from the subject tank(s) and the date of final completion, not to exceed two years from approval of the Hexavalent Chromium Phase-Out Plan;

(C) A list of milestones, including any testing required to meet specifications or quality assurance requirements, ~~that are necessary to occur in order~~ to allow the facility to reduce or eliminate hexavalent chromium by the completion date;

(D) Completion date for each of the milestones listed in subparagraph (u)(1)(C); and

(E) A list of all control measures that will be implemented for the subject tank(s), including dates of implementation, until the hexavalent chromium-concentration is eliminated or reduced as stated.

(u) (2) The Hexavalent Chromium Phase-Out Plan shall be subject to the fees specified in Rule 306.

(u) (3) The Executive Officer shall notify the owner or operator of a facility in writing whether the Hexavalent Chromium Phase-Out Plan is approved or disapproved. Determination of approval status shall be based on, at a minimum, submittal of information that satisfies the criteria set forth in paragraph (u)(1). If the Hexavalent Chromium Phase-Out Plan is disapproved, the owner or operator of a facility shall resubmit the plan, subject to plan fees specified in Rule 306, within 30 calendar days after notification of disapproval of the Hexavalent Chromium Phase-Out Plan. The resubmitted Hexavalent Chromium Phase-Out Plan shall include any information necessary to address deficiencies identified in the disapproval letter.

(u) (4) Upon approval of the Hexavalent Chromium Phase-Out Plan, the owner or operator of a facility shall implement the approved plan and shall submit a progress report to the Executive Officer by the first day of every calendar quarter indicating the increments of progress for the previous quarter, or submit according to an alternative schedule as specified in the approved plan.

(u) (5) The Executive Officer shall notify the owner or operator of a facility to submit complete SCAQMD permit applications for an add-on air pollution control device to comply with subdivision (h) if:

(A) The owner or operator does not eliminate or reduce hexavalent chromium by the final completion date in the approved Hexavalent Chromium Phase-Out Plan;

(B) The Executive Officer denies a resubmitted Hexavalent Chromium Phase-Out Plan; or

(C) The owner or operator fails to resubmit a Hexavalent Chromium Phase-Out Plan as required under paragraph (u)(3).

(u) (6) The owner or operator shall install the add-on air pollution control device specified in~~for~~ the permit application submitted pursuant to paragraph (u)(5) no later than 180 days after a SCAQMD Permit to Construct has been issued.

(v) Time Extensions

(v) (1) An owner or operator of a facility may submit a request to the Executive Officer for a one-time extension for up to 12 months to:

(A) Complete installation of an add-on air pollution control device, implement an approved alternative compliance method, or implement an approved Hexavalent Chromium Phase-Out Plan to meet the requirements under subparagraph (h)(4)(C); or

(B) Meet the hexavalent chromium emission limit, phase-out the use of hexavalent chromium, or implement an alternative to a wetting agent chemical fume suppressant required under paragraph (l)(5);

(v) (2) An owner or operator of a facility that elects to submit a request for a time extension shall submit the request no later than 90 days before the compliance deadline specified in subparagraph (h)(4)(C) or paragraph (l)(5) and provide:

(A) The facility name, SCAQMD facility identification number, and the name and phone number of a contact person;

(B) A description of the chromium electroplating or chromic acid anodizing tank and the SCAQMD Permit to Operate and tank number;

(C) A description of the emission reduction approach that is being implemented;

(D) The specific provision under subparagraph (h)(4)(C) or paragraph (l)(5) for which a compliance extension is being requested;

(E) The reason(s) a time extension is needed;

(F) Progress in meeting the provisions in subparagraph (h)(4)(C) or paragraph (l)(5) including but not limited to date permit application was submitted to the SCAQMD, date permit to construct was approved, purchase order of equipment, date of service of contractors or consultants to install equipment; and

(G) Length of time requested, up to 12 months.

(v) (3) Approval of Time Extensions

The Executive Officer will review the request for the time extension and will approve the time extension if the owner or operator:

(A) Demonstrates that there are specific circumstances beyond the control of the owner or operator that necessitate additional time to meet the compliance dates specified under subparagraph (h)(4)(C) and paragraph (l)(5); and

(B) The demonstration is substantiated with information that includes, but is not limited to detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility.

Appendix 1 – Content of ~~Performance~~ Source Test Reports.

~~Performance~~ Source test reports shall contain, at a minimum, the following information:

1. A brief process description;
2. Sampling location description(s);
3. A description of sampling and analytical procedures and any modifications to standard procedures;
4. Test results in milligrams/ampere-hour;
5. Quality assurance procedures and results;
6. Records of operating conditions during the test, preparation of standards, and calibration procedures;
7. Original data for field sampling and field and laboratory analyses;
8. Documentation of calculations; ~~and~~
9. Applicable Industrial Ventilation Limits;
10. Collection slot velocities (if applicable);
11. Measured static, differential, or volumetric flow rate at the push manifold, collection manifold, across each stage of the control device, and exhaust stack (if applicable); and

~~9~~12. Any other information required by the test method.

~~Note: Test reports consistent with the provisions of ARB Method 425 will fulfill the above performance test report content requirement.~~

Appendix 2 – Content of Initial Compliance Status Reports.

Initial compliance status reports shall contain, at a minimum, the following information:

1. Facility name, SCAQMD ID number, facility address, owner~~/~~ and operator name, and telephone number;
2. The distance of the facility to the property line of the nearest commercial/industrial building and sensitive receptor using measurement methods provided in ~~subparagraph (c)(11)(B)~~paragraph (h)(2);
3. Sensitive receptor locations, if they are located within one-quarter of a mile from the center of the facility;
4. Building parameters
   - Stack height in feet (point sources); or
   - Building area in square feet (volume sources).
5. Maximum potential rectifier capacity per tank and facility maximum operating schedule (more than or less than or equal to 12 hours per day);
6. The applicable emission limitation and the methods that were used to determine compliance with this limitation;
7. Facility-wide emissions ~~established under paragraph (d)(4)~~, if applicable;
8. If a ~~performance~~ source test is required, the test report documenting the results of the ~~performance~~source test, which contains the elements listed in Appendix 1;
9. If an initial smoke test demonstrating the capture efficiency of ~~a ventilation system~~ the add-on air pollution control device or add-on non-ventilated air pollution control device is required, the test report documenting the results which contain the elements listed in Appendix 8~~9~~;
10. The type and quantity, in pounds, of hazardous air pollutants emitted by the source. ~~(If the owner or operator is subject to the construction and modification provisions of subdivision (l) and had previously submitted emission estimates, the owner or operator shall state that this report corrects or verifies the previous estimate.)~~;
11. For each monitored parameter for which a compliant value is to be established under subdivision (m)~~(g)~~, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit;

12. The methods that will be used to determine continuous compliance, including a description of monitoring and reporting requirements, if methods differ from those identified in this section;
13. A description of the air pollution control technique for each emission point;
14. A statement that the owner or operator of a facility has completed and has on file the operation and maintenance plan as required by subdivision (n)~~(i)~~;
15. The actual cumulative ampere-hour usage expended during the preceding calendar year, if operation occurred;
16. Information on calculations for the building enclosure envelope pursuant to paragraph (e)(1), including locations and dimensions of openings that are counted towards the applicable building envelope allowance;
16~~7~~. A statement that the owner or operator of a facility, or personnel designated by the owner or operator of a facility, has completed a ~~District~~SCAQMD-approved training program pursuant to ~~paragraph (c)(7)~~subdivision (j); and
17~~8~~. A statement by the owner or operator of a facility as to whether the source has complied with the provisions of this section.

Appendix 3 – Content of Ongoing Compliance Status and Emission Reports.

Ongoing compliance status and emission reports shall, at a minimum, contain the following information:

1. The company name and address of the source;
2. An identification of the operating parameter that is monitored for compliance determination, as required by subdivision (m)~~(g)~~;
3. The relevant emission limitation for the source, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the notification of initial compliance status required by Appendix 2;
4. The beginning and ending dates of the calendar year for the reporting period;
5. A description of the type of process performed in the source;
6. The actual cumulative rectifier usage expended during the calendar year of the reporting period, on a month-by-month basis, if the source is a hard or decorative chromium electroplating tank or chromic acid anodizing tank;
7. Updated facility-wide emissions~~ established under paragraph (d)(4)~~, if applicable;
8. Hexavalent chromium and trivalent chromium emissions data in grams per year for the reporting period;
9. Sensitive receptor distances, if they are located within ¼ of mile from the center of the facility and facility maximum operating schedule (more than or less than or equal to 12 hours per day), if changed since submittal of the initial compliance status report or subsequent ongoing compliance status and emission reports. Sensitive receptor distances shall be measured using methods provided in paragraph (h)(2)~~ (c)(11)(B)~~;
10. A summary of any excess emissions or exceeded monitoring parameters as identified in the records required by paragraph (j~~o~~)(~~6~~7);
11. A certification by a responsible official that the inspection and maintenance requirements in subdivision (n~~h~~) were followed in accordance with the operation and maintenance plan for the source;
12. If the operation and maintenance plan required by subdivision (n~~i~~) was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emissions and/or monitoring parameter excesses are believed to have occurred, and a copy of the record(s) required by paragraph (o~~j~~)(1) documenting that the operation and maintenance plan was not followed;

13. If applicable, results of periodic smoke tests demonstrating capture efficiency of ~~ventilation system(s)~~an add-on air pollution control device or add-on non-ventilated air pollution control device conducted during the reporting period;
14. A description of any changes in monitoring, processes, or controls since the last reporting period;
15. A statement that the owner or operator of a facility, or personnel designated by the owner or operator of a facility has, within the last 2 years, completed a ~~District~~SCAQMD-approved training program pursuant to ~~paragraph (c)(7)~~subdivision (j);
16. Add-on air pollution ventilation measurements conducted during the most recent successful SCAQMD approved source test that include:
    (A) The velocity of each collection slot, including the velocity values that would be 95% and 90% of the source-tested value.
    (B) For push-pull systems, the pressure of each push air manifold, including the pressure values that would be 110%, 105%, 95%, and 90% of the source-tested value;
17. A summary of any pollution prevention measures that the facility has implemented that eliminates or reduces the use of hexavalent chromium in the chromium electroplating or chromic acid anodizing process and associated process tanks.
18. ~~Updated i~~Information on calculations for the building enclosure envelope pursuant to paragraph (e)(1), including locations and dimensions of openings that are counted towards the applicable building envelope allowance.

16. The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

17. The date of the report.

~~**Appendix 4 – Notification of Construction Reports.**~~

~~Notification of Construction reports shall contain the following information:~~

- ~~(A) The owner or operator's name, title, and address;~~
- ~~(B) The address (i.e., physical location) or proposed address of the source if different from the owner's or operator's;~~
- ~~(C) A notification of intention to construct a new source or make any physical or operational changes to a source that may meet or has been determined to meet the criteria for a modification;~~
- ~~(D) The expected commencement and completion dates of the construction or modification;~~
- ~~(E) The anticipated date of (initial) startup of the source;~~
- ~~(F) The type of process operation to be performed (hard or decorative chromium electroplating, or chromic acid anodizing);~~
- ~~(G) A description of the air pollution control technique to be used to control emissions, such as preliminary design drawings and design capacity if an add-on air pollution control device is used; and~~
- ~~(H) An estimate of emissions from the source based on engineering calculations and vendor information on control device efficiency, expressed in units consistent with the emission limits of this subpart. Calculations of emission estimates should be in sufficient detail to permit assessment of the validity of the calculations.~~

~~Note: A facility can fulfill these report content requirements by complying with the District's new source review rule or policy, provided similar information is obtained.~~

Appendix 4 – Summary of Inspection and Maintenance Requirements

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Composite mesh-pad (CMP) system.	1. Visually inspect device to ensure that there is proper drainage, no unusual chromic acid buildup on the pads, and no evidence of chemical attack that affects the structural integrity of the device.	1. Once per quarter.
	2. Visually inspect back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist.	2. Once per quarter.
	3. Visually inspect ductwork from tank to the control device to ensure there are no leaks.	3. Once per quarter.
	4. Perform washdown of the composite mesh-pads in accordance with manufacturer's recommendations.	4. Per manufacturer.
Packed-bed scrubber (PBS)	1. Visually inspect device to ensure there is proper drainage, no unusual chromic acid buildup on the packed-beds, and no evidence of chemical attack that affects the structural integrity of the device.	1. Once per quarter.
	2. Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist.	2. Once per quarter.
	3. Same as number 3 above for CMP system.	3. Once per quarter.
	4. Add fresh makeup water to the packed-bed[A].	4. Whenever makeup is added.

[A] Horizontal packed-bed scrubbers without continuous recirculation must add make-up water to the top of the packed-bed.

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
PBS/CMP system	1. Same as for CMP system.	1. Once per quarter.
	2. Same as for CMP system.	2. Once per quarter.
	3. Same as for CMP system.	3. Once per quarter.
	4. Same as for CMP system	4. Per manufacturer.
Fiber-bed mist eliminator[B]	1. Visually inspect fiber-bed unit and prefiltering device to ensure there is proper drainage, no unusual chromic acid buildup in the units, and no evidence of chemical attack that affects the structural integrity of the devices.	1. Once per quarter.
	2. Visually inspect ductwork from tank or tanks to the control device to ensure there are no leaks.	2. Once per quarter.
	3. Perform washdown of fiber elements in accordance with manufacturer's recommendations.	3. Per manufacturer.
High Efficiency Particulate Arrestors filter (HEPA)	1. Look for changes in the pressure drop.	1. Once per week.
	2. Replace HEPA filter.	2. Per manufacturer's specifications or SCAQMD's requirement.

[B] Inspection and maintenance requirements for the control device installed upstream of the fiber-bed mist eliminator to prevent plugging do not apply as long as the inspection and maintenance requirements for the fiber-bed unit are followed.

Table 4-1:
Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) (cont)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Chromium Tank Covers	1. Drain the air-inlet (purge air) valves at the end of each day that the tank is in operation.	1. Once per day.
	2. Visually inspect access door seals and membranes for integrity.	2. Once per week.
	3. Drain the evacuation unit directly into the electroplating tank or into the rinse tanks (for recycle into the electroplating tank).	3. Once per week.
	4. Visually inspect membranes for perforations using a light source that adequately illuminates the membrane (e.g., Grainger model No. 6X971 Fluorescent Hand Lamp).	4. Once per month.
	5. Visually inspect all clamps for proper operation; replace as needed.	5. Once per month.
	6. Clean or replace filters on evacuation unit.	6. Once per month.
	7. Visually inspect piping to, piping from, and body of evacuation unit to ensure there are no leaks and no evidence of chemical attack.	7. Once per quarter.
	8. Replace access door seals, membrane evacuation unit filter, and purge air inlet check valves in accordance with the manufacturer's recommendations.	8. Per manufacturer.
Pitot tube	Backflush with water, or remove from the duct and rinse with fresh water. Replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained. Check Pitot tube ends for damage. Replace Pitot tube if cracked or fatigued.	Once per quarter.
Ampere-hour meter	Install and maintain per manufacturer's specifications.	Per manufacturer.

Table 4-2:
Additional Inspection and Maintenance Requirements for Tier I, II, and III Hexavalent Chromium Tank(s)

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Temperature Gauge	1. Install and maintain per manufacturer's specification at each Tier I, II, and III Hexavalent Chromium Tank.	1. Per manufacturer.
	2. Calibrated or confirmed to be accurate.	2. Once per year.
Collection Slots and Push Air Manifolds for Push-Pull Systems	1. Visually inspect slots and push air manifolds to ensure that there are no obstructions or clogs.	1. Once per week.
	2. Clean slots or push air manifolds.	2. Once every 180 days.
	3. Measure slot velocity of each slot and pressure at each push air manifold using a hot-wire anemometer, vein anemometer, or approved device	3. Once every 180 days.
Air Flow Gauges	Install and maintain per manufacturer's specifications.	Per manufacturer

Table 4-3
Summary of Inspection and Maintenance Requirements for Sources Not Using Add-on Air Pollution Control Devices to Control Tier II Hexavalent Chromium Tank(s)

Equipment	Inspection and Maintenance Requirement for Monitoring Equipment	Frequency
Temperature Data Logger	1. Install and maintain per manufacturer's specification at each Tier II Hexavalent Chromium Tank.	1. Per manufacturer.
	2. Calibrate~~d~~ or confirm~~ed~~ to be accurate.	2. Per manufacturer.

Table 4-4
Summary of Inspection and Maintenance Requirements for Sources Using Chemical or Mechanical Fume Suppressants

Equipment	Inspection and Maintenance Requirement for Monitoring Equipment	Frequency
Ampere-hour meter	Install and maintain per manufacturer's specifications.	Per manufacturer.
Stalagmometer/ Tensiometer	Calibrate and maintain per manufacturer's specifications.	Per manufacturer.

Appendix 5 – Smoke Test for ~~Chromium Tank Covers.~~Add-on Non-Ventilated Air Pollution Control Device

SMOKE TEST TO VERIFY THE SEAL INTEGRITY OF COVERS DESIGNED TO REDUCE CHROMIUM EMISSIONS FROM ~~ELECTROPLATING AND ANODIZING~~ TIER III HEXAVALENT CHROMIUM TANKS

1. Applicability and Principle

1.1 Applicability. This ~~alternative~~ method is applicable to all ~~hard chromium electroplating and anodizing operations~~ Tier III Hexavalent Chromium Tanks where a chromium tank cover or add-on non-ventilated air pollution control device is used on the tank for reducing chromium emissions.

1.2 Principle. During ~~chromium electroplating or anodizing~~electrolytic operations, gas bubbles ~~of hydrogen and oxygen gas~~ generated during the process rise to the surface of the tank liquid and burst. Non-electrolytic tanks that are either heated or air sparged generate bubbles that rise to the surface. Upon bursting, tiny droplets of chromic acid (chromium mist) or hexavalent chromium laden liquid become entrained in the air above the tank. Because the chromium tank cover completely encloses the air above the tank, the chromium mist either falls back into the solution because of gravity or collects on the inside walls of the chromium tank cover and runs back into the solution. A semi-permeable membrane allows passage of the hydrogen and oxygen out of the chromium tank cover. A ~~lit~~ smoke device is placed inside the chromium tank cover to detect leaks at the membrane, joints, or seals.

2. Apparatus

2.1 Smoke device. Adequate to generate 500 to 1000 ft^3 of smoke/20 ft^2 of tank surface area ~~(e.g., Model #1A=15 SECONDS from Superior Signal, New York)~~.

2.2 Small container. To hold the smoke device.

3. Procedure

Place the small container on a stable and flat area at center of the chromium tank cover (you can use a board and place it on the buss bars). Place the smoke device inside the container. After ~~lighting~~ activating the smoke device, quickly close the access door to avoid smoke from escaping. Let smoke device ~~completely burn;~~fill the entire space under the chromium tank cover ~~will now be filled~~ with ~~the~~ smoke. ~~Observe for~~ An acceptable smoke test shall demonstrate no leaks of smoke from each seal, joint, and membrane of the chromium tank cover. Record these observations including the locations and a qualitative assessment of any leaks of smoke.

When all seals, joints, and membranes have been observed, evacuate the unit to remove the smoke from the chromium tank cover.

Appendix 6 – Approval of Alternatives for Specific Requirements

Section	Requirement	Description of Authority	Approving Agency	Concurring Agency
(~~a~~b)	Applicability	Assisting an owner or operator of a facility in determining whether a facility is subject to the ~~ATCM~~rule	~~District~~ SCAQMD	
~~(c)~~(h)	Standards	Approving alternative standards	~~District~~ SCAQMD	U.S. EPA
~~(e)(1)~~(k)(1)	~~Performance~~ Source Test Requirement	Waiving a ~~performance~~ source test requirement	~~District~~ SCAQMD	
~~(e)(2)~~(k)(1)	Use of Existing ~~Performance~~Source Tests	Approving the use of existing performance test results to demonstrate compliance, based on the "Description of the Technical Review Protocol for Performance Tests of California Chrome Plating Sources" (see Attachment 2 of the July 10, 1998 memorandum from John S. Seitz entitled, "Delegation of 40 CFR Part 63 General Provisions Authorities to State and Local Air Pollution Control Agencies.")	~~District~~ SCAQMD	
~~(e)(3)~~(k)(2)	Test Method	Approving site-specific alternatives to test methods	~~District~~ SCAQMD for minor[1] or intemediate[2] changes	U.S. EPA for major[3] changes, and ARB
~~(e)(4)~~(k)(4)	Pre-Test Protocol	Approving pre-test protocols	~~District~~ SCAQMD	
~~(e)(5)~~(k)(5)	Test All Emission Points	Waiving the requirement to test all emission points	~~District~~ SCAQMD	
~~(g)~~(m)	Parameter Monitoring	Approving site-specific changes in monitoring methodology	~~District~~ SCAQMD for minor[1] or intermediate[4] changes	U.S. EPA for major[3] changes
~~(h)~~(n)	Inspection and Maintenance Requirements	Approving site-specific changes to inspection and maintenance requirements	~~District~~ SCAQMD	

Section	Requirement	Description of Authority	Approving Agency	Concurring Agency
~~(i)~~(n)	Operation and Maintenance Plans	Approving or requiring site-specific changes to operation and maintenance plans	~~District~~ SCAQMD	
~~(j)(1) (10)~~(o)(1) - (o)(11)	Recordkeeping	Waiving or altering recordkeeping requirements	~~District~~ SCAQMD	U.S. EPA for major[3] changes
~~(j)(12)~~(o)(12)	Retention of Records	Waiving or altering the requirement to retain records for 5 years	~~District~~ SCAQMD	U.S. EPA for major[3] changes
~~(k)~~(p)	Reporting	Waiving or altering reporting requirements	~~District~~ SCAQMD	U.S. EPA[5] for major[3] changes

1 Minor change to a test method or monitoring is a modification to a federally enforceable test method or monitoring that (a) does not decrease the stringency of the emission limitation or standard or the compliance and enforcement measures for the relevant standard; (b) has no national significance (e.g., does not affect implementation of the ~~application~~ applicable regulation for other affected sources, does not set a national precedent, and individually does not result in a revision to the test method or monitoring requirement); and (c) is site specific, made to reflect or accommodate the operation characteristics, physical constraints, or safety concerns of an affected source.

2 Intermediate change to a test method is a within-method modification to a federally enforceable test method involving "proven technology" (generally accepted by the scientific community as equivalent or better) that is applied on a site-specific basis and that may have the potential to decrease the stringency of the associated emission limitation or standard. Intermediate changes are not approvable if they decrease the stringency of the standard.

3 Major change to a test method or monitoring is a modification to a federally enforceable test method or federally required monitoring that uses unproven technology or procedures or is an entirely new method (sometimes necessary when the required test method is unsuitable).

4 Intermediate change to monitoring is a modification to federally required monitoring involving "proven technology" (generally accepted by the scientific community as equivalent or better) that is applied on a site-specific basis and that may have the potential to decrease the stringency of the compliance and enforcement measures for the relevant standard.

5 U.S. EPA concurrence is not needed for adjustments made according to paragraph (~~k~~p)(6).

~~Appendix 7 – Distance-Adjusted Ampere-Hour and Annual Emissions Limits For Facilities Located More Than 25 Meters from a Residence or Sensitive Receptor.~~

~~Facilities subject to the interim requirements of paragraph (c)(9) or complying with the interim facility-wide mass emission rate in paragraph (d)(4) may adjust the ampere-hour or annual emission limits according to actual receptor distance. Ampere-hour limits refer to actual consumption of electrical current from all hexavalent chromium electroplating and chromic acid anodizing operations at a facility.~~

~~Use the following tables to determine the appropriate ampere-hours or annual emissions for compliance with the interim emission limitations in paragraph (c)(9), or compliance with the interim facility-wide mass emission rate in paragraph (d)(4) according to the distance to the nearest receptor. Receptor distance is measured as follows:~~

~~Table 7-1~~
~~Measuring Receptor Distance~~

~~Source Type~~	~~Measure From:~~	~~Measure To:~~
~~Point Source, Single Stack~~	~~Stack~~	~~Property Line of Nearest Receptor~~
~~Point Source, Multiple Stacks~~	~~Centroid of Stacks~~	~~Property Line of Nearest Receptor~~
~~Volume Source No Stack~~	~~Center of Building~~	~~Property Line of Nearest Receptor~~

Table 7-2

Hexavalent Chromium Electroplating and Chromic Acid Anodizing Operation Vented to Air Pollution Control Device(s) Normally Operating 12 Hours Per Day or Less

Distance to Nearest Receptor (m)	25	30	35	40	45	50	55	60
Ampere-Hours/yr (x10^6)	1.60	1.74	1.88	2.03	2.22	2.44	2.69	2.98
Annual Emissions (lbs/yr)	0.036	0.039	0.042	0.045	0.049	0.054	0.060	0.066
Distance to Nearest Receptor (m)	65	70	75	80	85	90	95	100
Ampere-Hours/yr (x10^6)	3.36	3.84	4.48	4.87	5.33	5.88	6.56	7.42
Annual Emissions (lbs/yr)	0.074	0.085	0.099	0.108	0.118	0.130	0.145	0.164

Table 7-3

Any Hexavalent Chromium Electroplating and Chromic Acid Anodizing Operation Vented to Air Pollution Control Device(s) Normally Operating More Than 12 Hours Per Day

Distance to Nearest Receptor (m)	25	30	35	40	45	50	55	60
Ampere-Hours/yr (x10^6)	1.80	1.80	1.80	1.80	1.80	1.80	1.92	2.05
Annual Emissions (lbs/yr)	0.039	0.039	0.039	0.039	0.039	0.039	0.042	0.044
Distance to Nearest Receptor (m)	65	70	75	80	85	90	95	100
Ampere-Hours/yr (x10^6)	2.20	2.38	2.58	2.74	2.92	3.12	3.35	3.62
Annual Emissions (lbs/yr)	0.048	0.051	0.056	0.059	0.063	0.068	0.073	0.078

~~Table 7-4~~

~~Decorative Chromium Electroplating and Chromic Acid Anodizing Operations Without Air Pollution Control~~

~~Distance to Nearest Receptor (m)~~	~~25~~	~~30~~	~~35~~	~~40~~	~~45~~	~~50~~	~~55~~	~~60~~
~~Ampere-Hours/yr (x10^6)~~	~~1.15~~	~~1.31~~	~~1.52~~	~~1.80~~	~~2.22~~	~~2.89~~	~~3.19~~	~~3.56~~
~~Annual Emissions (lbs/yr)~~	~~0.025~~	~~0.028~~	~~0.033~~	~~0.039~~	~~0.048~~	~~0.063~~	~~0.069~~	~~0.077~~
~~Distance to Nearest Receptor (m)~~	~~65~~	~~70~~	~~75~~	~~80~~	~~85~~	~~90~~	~~95~~	~~100~~
~~Ampere-Hours/yr (x10^6)~~	~~4.03~~	~~4.64~~	~~5.47~~	~~5.92~~	~~6.46~~	~~7.10~~	~~7.88~~	~~8.87~~
~~Annual Emissions (lbs/yr)~~	~~0.088~~	~~0.101~~	~~0.119~~	~~0.129~~	~~0.140~~	~~0.154~~	~~0.171~~	~~0.193~~

Appendix 7~~8~~ – Information Demonstrating an Alternative Method(s) of Compliance Pursuant to ~~Paragraph (d)(6).~~Subdivision (i)

The owner or operator of a facility applying for approval of an alternative method of compliance must submit to the ~~District~~ Executive Officer the following information.

1. A ~~performance~~ source test as specified in subdivision (~~e~~i) that is submitted after receipt of the SCAQMD Permit to Construct. The test shall have been conducted in a manner consistent with normal electroplating or anodizing operations.
2. A demonstration that the alternative method achieves an equal or greater amount of reductions in hexavalent chromium emissions than would be achieved with direct compliance with the applicable emission rate in paragraphs ~~(c)(11)(A), (c)(12)(A)(ii), or (c)(13)(A)(iv)~~(h)(2) or (h)(4).
3. Calculations based on scientifically valid risk assessment methodologies demonstrating that the alternative method results in reducing risk equally or greater than the risk reduction that would be achieved by direct compliance with the applicable emission rate ~~in Table 2 of subparagraph (c)(11)(A), (c)(12)(A)(ii), or (c)(13)(A)(iv)~~. A facility using in-tank controls shall only be modeled as a volume source and the resulting risk shall be compared to the same facility modeled as a point source.
4. Documentation which demonstrates that the method is enforceable, including an operation and maintenance plan, an inspection and maintenance schedule, and a recordkeeping plan.
5. A demonstration that the facility is at least ~~2~~75~~meters~~feet from a sensitive receptor.

Appendix 8~~9~~ – Smoke Test to Demonstrate Capture Efficiency for ~~Ventilation Systems of~~an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (e~~k~~)(~~7~~6).

1. Applicability and Principle

1.1 Applicability. This method is applicable to all hard and decorative chromium electroplating and chromic acid anodizing operations where an add-on air pollution control device is used to reduce chromium emissions from the chromium electroplating or anodizing tank.

1.2 Principle. During chromium electroplating or anodizing operations, bubbles of hydrogen and oxygen gas generated during the process rise to the surface of the tank liquid and burst. Upon bursting, tiny droplets of chromic acid (chromium mist) become entrained in the air above the tank. Collection of this chromium mist is achieved ~~by the ventilation system associated~~ with the add-on air pollution control device for the tank(s) where chromium emissions are reduced downstream. Emission control efficiency at the exhaust of an add-on control device is related to capture efficiency at the inlet of the ~~ventilation system~~add-on air pollution control device. For this reason, it is imperative that 100% capture efficiency is maintained. A smoke device placed within the area where collection of chromic mist by the ~~ventilation system~~add-on air pollution control device occurs reveals this capture efficiency.

2. Apparatus

2.1 Smoke Generator. Adequate to produce a persistent stream of visible smoke ~~(e.g., Model #15-049 Tel-Tru™ T-T Smoke Sticks from E. Vernon Hill, Incorporated)~~.

3. Testing Conditions

The smoke test shall be conducted while the add-on air pollution control device is in normal operation and under typical draft conditions representative of the facility's chromium electroplating and/or chromic acid anodizing operations. This includes cooling fans and openings affecting draft conditions around the tank area including, but not limited to, vents, windows, doorways, bay doors, and roll-ups. The smoke generator must be at full generation during the entire test and operated according to manufacturer's suggested use.

3. Procedure

The smoke test shall be conducted over a minimum twelve point matrix evenly distributed over the entire liquid surface of each chromium electroplating or chromic acid anodizing tank vented to the add-on air pollution control device. Place the aperture of the smoke device at each point of the matrix at a height within one inch

above the tank top. Observe collection of the smoke to the collection location(s) of the ~~ventilation system~~add-on air pollution control device. An acceptable smoke test shall demonstrate a direct stream to the collection location(s) of the ~~ventilation system~~add-on air pollution control device without meanderings out of this direct path. Record these observations at each of the points on the matrix providing a qualitative assessment of the collection of smoke to the ~~ventilation system~~add-on air pollution control device. The test shall also be documented by photographs or video at each point of the matrix.

Appendix 9~~10~~ – Surface Tension Measurement Procedure for a Stalagmometer

The stalagmometer shall first be properly cleaned before being used for the first time and after a period of storage. Properly clean the stalagmometer using the following procedure:

1. Set up stalagmometer in stand in a fume hood.
2. Place a clean 150 mL beaker underneath the stalagmometer then fill with reagent grade concentrated nitric acid. Immerse bottom tip (approximately ½") of stalagmometer into the beaker.
3. Squeeze rubber bulb and pinch at the arrow up (1) position to collapse. Place bulb end securely on top end of stalagmometer. Carefully draw the nitric acid by pinching the arrow up (1) position until the level is above the top etched line.
4. Allow nitric acid to remain in stalagmometer for 5 minutes and then carefully remove the bulb allowing the acid to completely drain.
5. Fill a clean 150 mL beaker with distilled or deionized water. Using the rubber bulb per the instructions in Step #3, rinse and drain stalagmometer with deionized or distilled water until the inside is "water break" free.
6. Fill a clean 150 mL beaker with isopropyl alcohol. Again using the rubber bulb per Step #3, rinse and drain stalagmometer twice with isopropyl alcohol and allow the stalagmometer to dry completely.
7. Take a sample of the solution to be tested and adjust the solution to room temperature. Measure the specific gravity and record reading.
8. Fill a clean 150 mL beaker with solution to be tested. Immerse bottom end of stalagmometer into the beaker. Fill the stalagmometer per instructions in Step #3, making sure that the solution level is above the top etched line.
9. Raise the stalagmometer so that the bottom end is completely out of solution. Remove bulb and immediately place a finger on the top end of the stalagmometer. Carefully use the finger to bring the solution level down to the top etched line. Do not release finger at this time.
10. "Wipe" the excess solution on the lower tip by touching it against the side of the beaker.
11. Release fingertip to allow solution to drain and count number of drops until the level reaches the bottom etched line.

Calculations for Surface Tension

$$\text{Surface tension (dynes/cm)} = \frac{Sw * Nw * D}{N * Dw}$$

Sw = Surface tension of water at 25°C or 77°F (72.75 dynes/cm)
Nw = water drop number etched on instrument
D = measured specific gravity (g/ml)
N = # of solution drops
Dw = water density (1.0 g/mL)

PRECAUTIONS:

1. Make sure the stalagmometer is clean (no sludge or film)
2. No chips, cracks, etc
3. Vertical placement
4. No vibration
5. 20 drops per minute rate (10 dynes/cm) +/- 1 drop per minute
6. Performance checked with water. The number of drops etched on the instrument shall be verified with deionized water to +/- 1 drop. If the number of drops are not within 1 drop, then the stalagmometer shall be cleaned. If the cleaning process does not bring the drop count within 1 drop of the etched number on the instrument, then the operator shall:
    a) Purchase a new stalagmometer; or
    b) Use the number of drops recorded for the distilled water run as (Nw) in the equation instead of the number of drops etched on the stalagmometer.
7. Sample at room temperature.

Appendix 10 – Tier II and Tier III Hexavalent Chromium Tank Thresholds

Tier II Tank hexavalent chromium concentrations shall remain in the concentration range for the specified temperature and be required to comply with subparagraph (h)(4)(B). Tanks that exceed hexavalent chromium concentration for a corresponding temperature shall be considered a Tier III Tank and shall be required to comply with subparagraph (h)(4)(A).

Temperature (° F)	**Tier II Tank Hexavalent Chromium Concentration (ppm)**	**Tier III Tank Hexavalent Chromium Concentration (ppm)**
140 to <145° F	5,200 to <10,400	≥10,400
145 to <150° F	2,700 to <5,500	≥5,500
150 to <155° F	1,400 to <2,900	≥2,900
155 to <160° F	700 to <1,600	≥1,600
160 to <165° F	400 to <800	≥800
165 to <170° F	180 to <400	≥400
≥170° F	≥100 to <200	≥200

Electrolytic tanks, such as chromium electroplating or chromic acid anodizing tanks, with hexavalent chromium concentration greater than 1,000 ppm shall be considered a Tier III tank regardless of operating temperature.

Air sparged tanks with a hexavalent chromium concentration greater than 1,000 ppm shall be considered a Tier III tank regardless of operating temperature.

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report
Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

September 2018

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EXECUTIVE SUMMARY

South Coast Air Quality Management (SCAQMD) Rule 1169 – Hexavalent Chromium – Chrome Plating and Chromic Acid Anodizing was adopted on June 3, 1988 and applies~~s~~d to chromium electroplating (hard and decorative) and chromic acid anodizing processes. On October 9, 1998, Rule 1169 was repealed and provisions were incorporated in Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations as part of Regulation XIV. This regulation includes rules regulating toxics and non-criteria pollutants.

Based on sampling, emissions testing, and ambient monitoring conducted near several facilities subject to Rule 1469 it was determined that increased concentrations of hexavalent chromium in a tank and application of heat and/or air sparging can result in significant emissions from a hexavalent chromium containing tank depending on the hexavalent chromium concentration and temperature. Proposed Amended Rule 1469 (PAR 1469) addresses hexavalent chromium containing tanks not previously known to be sources of hexavalent chromium emissions and includes requirements such as building enclosures, best management practices, and housekeeping provisions that minimize the release of fugitive emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 also has provisions to ensure continuous proper operation of point source pollution controls and contingency provisions to add pollution controls for a building enclosure for any facility that repeatedly fails to comply with the point source emission requirements or fails to shut down a tank after not passing a test to evaluate the collection efficiency of a tank with pollution controls.

PAR 1469 also incorporates the changes made to the United States Environmental Protection Agency's (U.S. EPA) Chrome Plating National Emission Standards for Hazardous Air Pollutants (NESHAP) amended in September 2012. The NESHAP achieves further hexavalent chromium emission reductions by requiring more stringent emission limits for all facilities. For facilities that utilize chemical fume suppressants, surface tension limits have been lowered. Under Title 42 of the United States Code (U.S.C.) Section 7416, SCAQMD has the authority to adopt and enforce either equally effective or more stringent regulations than the NESHAP. Under California Health and Safety Code (H&SC) Section 39666(d), SCAQMD has the authority to adopt and enforce either equally effective or more stringent regulations than the NESHAP or the state Airborne Toxic Control Measure (ATCM).

This ~~Draft~~ Staff Report is organized into three chapters. Chapter 1 provides background information regarding PAR 1469 and provides a general description of electroplating and chromic acid anodizing operations and associated hexavalent chromium generating tanks. Chapter 1 also provides the results of ambient monitoring and emissions testing that SCAQMD staff has conducted at and near Rule 1469 facilities. Chapter 2 provides a summary and explanation of provisions in PAR 1469. Chapter 3 provides a summary of the impact assessments, which includes the environmental analysis and socioeconomic impact assessment, draft findings, and the comparative analysis of PAR 1469.

CHAPTER 1: BACKGROUND

INTRODUCTION

SCAQMD Rule 1469 establishes emission limits for hard and decorative electroplating and chromic acid anodizing operations based on throughputs and proximity to sensitive receptors and requires ongoing monitoring, initial performance testing of add-on control devices, housekeeping, reporting, and recordkeeping. The most recent amendment in 2008 incorporated the most stringent requirements of the amended state ATCM for Chrome Plating and Chromic Acid Anodizing Operations. The state ATCM had additional provisions to minimize hexavalent chromium emissions from compressed air cleaning, requirements for new facilities and record retention, and requirements for increased monitoring of air pollution controls.

PAR 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations is designed to reduce emissions from point sources that previously were not known to be significant sources of hexavalent chromium and to establish additional provisions to minimize the release of fugitive hexavalent chromium emissions from electroplating and chromic acid anodizing operations and associated processes. Off-site ambient monitoring and source testing near three chromic acid anodizing facilities identified ~~process tanks~~uncontrolled sodium dichromate tanks~~, which are not currently regulated under Rule 1469,~~ to be the source of substantial hexavalent chromium emissions. These tanks need additional emission controls. Based on results from ambient monitoring and additional emissions testing and sampling, PAR 1469 establishes new requirements for certain hexavalent chromium process tanks associated with electroplating and chromic acid anodizing operations, incorporates additional requirements for building enclosures, provides comprehensive housekeeping requirements, and includes periodic source testing, and updates monitoring and reporting requirements to better control point and fugitive hexavalent chromium emissions. PAR 1469 is also designed to harmonize Rule 1469 with the 2012 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (Chrome Plating NESHAP).

BACKGROUND

Rule 1169 – Hexavalent Chromium – Chrome Plating and Chromic Acid Anodizing was adopted on June 3, 1988 and applies to chromium electroplating (hard and decorative) and chromic acid anodizing processes. On October 9, 1998, Rule 1169 was repealed and provisions were incorporated in Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations as part of Regulation XIV. This regulation includes rules regulating toxics and non-criteria pollutants.

Rulemaking for PAR 1469 was initiated by SCAQMD staff in 2015 as a result of findings from ambient air monitoring and sampling near a chromic acid anodizing facility in Newport Beach. SCAQMD staff had been conducting ambient air monitoring near the Newport Beach facility since 2009. In 2012 and 2013, levels of hexavalent chromium increased substantially. These increases triggered a series of further evaluations by SCAQMD staff, including additional monitoring, sampling, and engineering evaluations, which identified several conditions that contributed to the elevated hexavalent chromium levels. For example, cross-drafts in the building that housed the chromic acid anodizing process allowed emissions to escape out of the building and also interfered with the collection efficiency of pollution controls. High hexavalent chromium emissions from a heated sodium dichromate seal tank that was not regulated under Rule 1469 also contributed to the

elevated levels. SCAQMD and the Newport Beach facility entered into a stipulated Order for Abatement requiring the facility to shut down when ambient monitors detect an average ambient concentration exceeding a specified threshold level. As a result, the Newport Beach facility implemented significant changes to address hexavalent chromium emissions such as additional pollution controls for its chromic acid anodizing process line (including the heated sodium dichromate seal tank), and construction of a building enclosure under negative air vented to pollution controls. Average levels of hexavalent chromium near the Newport Beach facility have greatly declined since the facility implemented these changes and modified their operations.

In 2015, SCAQMD rules staff began site visits at other Rule 1469 facilities to get a better understanding of current operating conditions, such as types of building enclosures, and housekeeping practices, and to also evaluate other process tanks that could also be sources of hexavalent chromium emissions similar to a heated sodium dichromate seal tank. During this initial phase of the rule development process, SCAQMD staff, in a separate program was conducting air monitoring in the city of Paramount to investigate potential sources of hexavalent chromium near a metal forging facility. In October 2016, SCAQMD expanded its monitoring network in Paramount and began monitoring near a chromic acid anodizing facility. Initial monitored concentrations of hexavalent chromium were 26 nanograms per cubic meter (ng/m^3) near a Paramount facility. For comparison, the background levels of hexavalent chromium, based on the nearest ~~MATES~~ Multiple Air Toxic Emission Study IV monitor data (Compton), was 0.1 ng/m^3. Further evaluation of the source of emissions again pointed to a heated sodium dichromate seal tank, combined with cross-drafts near a chromic acid anodizing tank and heated sodium dichromate seal tank that allowed emissions to flow directly out of the facility's building, as the main contributor.

Based on ambient monitoring data, sampling, and emissions testing, the application of heat and/or air sparging can result in substantial hexavalent chromium emissions from tanks. These emissions increase proportionately with the temperature and concentration of hexavalent chromium in the tank. PAR 1469 addresses tanks that were not previously known to be sources of hexavalent chromium emissions. It requires building enclosures, best management practices, and housekeeping provisions to minimize the release of fugitive emissions from these operations. PAR 1469 also has provisions to ensure the continuous proper operation of point source pollution controls.

PAR 1469 also incorporates the changes made to the U.S. EPA's Chrome Plating NESHAP amended in September 2012. The NESHAP achieves further hexavalent chromium emission reductions by requiring more stringent emission limits for all facilities. In addition to emission limit reductions, housekeeping measures have also been made more stringent. For facilities that utilize chemical fume suppressants, surface tension limits have been lowered. Under Title 42 of the U.S.C. Section 7416, SCAQMD has the authority to adopt and enforce either equally effective or more stringent regulations than the NESHAP. Under H&SC Section 39666(d), SCAQMD has the authority to adopt and enforce either equally effective or more stringent regulations than the NESHAP or the state ATCM.

Public Process

PAR 1469 is being developed through an extensive public process. A working group was formed to provide the public and stakeholders an opportunity to discuss important details about the proposed amendments to the rule and provide SCAQMD staff with input during the rule development process. The working group is comprised of a variety of stakeholders including representatives from industry, consultants, environmental groups, community groups, and public agency representatives. SCAQMD has held 13 working group meetings on March 23, 2017, May 18, 2017, June 29, 2017, August 2, 2017, August 31, 2017, September 20, 2017, October 26, 2017, November 29, 2017, January 4, 2018, February 6, 2018, February 27, 2018, April 4, 2018, and July 17, 2018. Working group meetings for this rulemaking were well attended with approximately 100 people in attendance per meeting and another 35 people on the phone. On average, working group meetings were 3 to 4 hours long. In addition, SCAQMD held three Public Workshops on November 1, 2017, December 7, 2017, and February 8, 2018. Two additional public outreach meetings ~~will be~~were held in August 2018 at the request of Supervisor Solis to better inform the public about Proposed Amended Rule 1469.

HEXAVALENT CHROMIUM

A "toxic air contaminant" is defined as an "air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health" (H&SC Section 39655(a)). In 1986, CARB identified hexavalent chromium as a carcinogenic toxic air contaminant based on a review of available scientific evidence.

Hexavalent chromium was measured in each of SCAQMD's Multiple Air Toxics Exposure Studies (MATES). These studies measured levels of air toxics in mostly residential or commercial areas. While MATES showed that hexavalent chromium levels have decreased over the past couple decades, this air pollutant was still the seventh largest contributor to air toxics cancer risk in the South Coast Air Basin (Basin) in the most recent MATES (MATES IV).

Hexavalent chromium may occur as aerosols or particulate matter in the air, which can be inhaled directly or deposited on soil or water, which can then be ingested. Contact with soil containing hexavalent chromium may transfer to the hands and then to the mouth. Young children may put their hands in their mouths more frequently than adults and therefore are more likely to consume contaminated soil. Chromic acid, a form of hexavalent chromium, is created as a mist during electroplating, which can be inhaled. Chromic acid can be absorbed through skin and ingested if deposited on the skin. Exposure to hexavalent chromium can increase the risk of developing certain types of cancer or result in other adverse health effects.

Inhalation of hexavalent chromium can cause both cancer and non-cancer health effects. Inhalation of hexavalent chromium over a long period of time increases the risk of lung cancer and nasal cancer. The non-cancer effects of being exposed to hexavalent chromium at high levels over time can cause or worsen health conditions such as irritation of the nose, throat and lungs; allergic symptoms (wheezing, shortness of breath); and nasal sores and perforation of the membrane separating the nostrils (for example, at very high air levels in workplaces).

CalEPA's Office of Environmental Health Hazard Assessment (OEHHA) has developed cancer potency factors which can be used to estimate the cancer risk associated with exposure to hexavalent chromium ~~if a person were to be exposed continuously for 30 years~~. Based on OEHHA's methodology to estimate health risk, the continual exposure to 0.045 ng/m^3 of hexavalent chromium for 30 years would increase the cancer risk by 25 in a million for a residential or sensitive receptor. Exposure over shorter periods of time would be associated with smaller increases in cancer risk. In MATES IV, the average levels of hexavalent chromium in mostly residential and commercial areas across the South Coast Basin was 0.06 ng/m^3. SCAQMD staff has taken measurements very close to facilities emitting hexavalent chromium and has found that hexavalent chromium levels near such facilities can be substantially higher than the background levels measured in MATES IV.

REGULATORY HISTORY

Chrome plating and chromic acid anodizing facilities are subject to local, state, and federal requirements. Rule 1469 incorporates provisions that are equal to or more stringent than the Chrome Plating state ATCM and federal NESHAP.

U.S. EPA NESHAP: Plating and Polishing Industry

In January 1995, the U.S. EPA promulgated the NESHAP for Chromium Emissions from Hard and Decorative Chromium Plating and Chromic Anodizing Tanks.

On June 12, 2008, the U.S. EPA issued 40 CFR Part 63 Subpart WWWWWW, the Plating and Polishing NESHAP for area sources. It addressed national air toxics standards for smaller-emitting sources, known as area sources, in the plating and polishing industry. The requirements apply to existing and new area sources in the plating and polishing rule. The rule affected existing and new plating and polishing facilities and applies to plating and polishing tanks, dry mechanical polishing operations, and thermal spraying operations that use or emit compounds of one or more of the following metal toxic air pollutants: –cadmium, chromium, lead, manganese, and nickel. It includes management practices such as use of wetting agent/fume suppressants, use of tank covers or control devices, and capture and control of emissions from thermal spraying and dry mechanical polishing.

In September 2012, U.S. EPA amended 40 CFR Part 63.340, the NESHAP for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks. The federal regulation reduced emission limits, decreasing a facility's mass emissions. Chromium electroplating and chromic acid anodizing which utilize chemical fume suppressants must maintain their electroplating bath to 40 dynes/cm or less. The addition of perfluorooctane sulfonic acid (PFOS) based fume suppressants would be prohibited (see Chemical Fume Suppressants section under Control Technologies below).

The 2012 NESHAP for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (Chrome Plating NESHAP) reduced emission limits for total chromium as shown in Table 1-1.

Table 1-1: 2012 NESHAP Revised Emission Limits

Operation	Previous Total Chromium Limits	2012 Total Chromium Limits
Large Hard Chromium Electroplating	0.015 mg/dscm	0.011 mg/dscm
Small Hard Chromium Electroplating	0.030 mg/dscm	0.015 mg/dscm
Decorative Chromium Electroplating	0.010 mg/dscm	0.007 mg/dscm
Chromium Anodizing	0.010 mg/dscm	0.007 mg/dscm

Housekeeping practices were added in Table 2 ~~under~~ to 40 CFR 63.342, which applies to all source categories and are summarized below:

- Store any substance used in an affected chromium or chromium anodizing tank that contains hexavalent chromium in a closed container in an enclosed storage area and use a closed container when transporting ~~use a closed container~~.
- Install technology and implement practices to minimize spills of bath solution and reduce drag out when parts are being moved or rinsed from the tank.
- Clean-up spills from an affected chromium electroplating or chromium anodizing tank within 1 hour.
- Clean surfaces regularly.
- Prohibit buffing, grinding, or polishing operations in the same room as anodizing or electroplating unless a physical barrier is in place.
- Store chromium containing wastes generated from housekeeping activities in a manner that does not generate fugitive dust.

Chromium Plating ATCM

In February 1988, the California Air Resources Board (CARB) adopted the Chromium Plating ATCM to reduce emissions of hexavalent chromium from hard and decorative chromium electroplating and chromic acid anodizing operations. The ATCM required that all hard plating tanks and anodizing tanks be vented to emission collection systems and established best available control technology (BACT) for the equipment. It also established control efficiency limits for add-on air pollution control devices and alternative emission limits based on the annual hexavalent chromium emissions of plating and anodizing shops. More stringent limits were required of larger facilities than those of smaller facilities, with the goal of reducing emissions from plating and anodizing tanks by at least 95 percent.

On May 21, 1998, CARB amended the Chrome Plating ATCM to consolidate the requirements from both the state and federal chrome plating regulations. Emission limits for decorative chrome and chromic acid anodizing were replaced with emissions limits from the federal chrome plating regulation. The amendment also expanded the rule's applicability to trivalent chrome operations ~~the rule continued~~while continuing to regulate hexavalent chrome operations. It added performance test requirements, inspection and maintenance requirements, monitoring provisions, recordkeeping and reporting requirements, and provisions for requesting alternative requirements.

On October 24, 2007, CARB amended the ATCM a second time. The amended ATCM provided further hexavalent chromium emission reductions by requiring more stringent emission limits for some facilities and ensured that construction of new facilities are not sited near sensitive receptors.

Generally, except for small facilities, the limits required the installation or upgrade of add-on air pollution control devices at plating tanks. The amendment required the use of HEPA filters, which were found to reduce emissions by over 99.9 percent, or the use of controls that resulted in equivalent emissions reductions, at many facilities. In addition to emission limit changes, the ATCM also added housekeeping measures.

SCAQMD Rules

Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations is the primary air toxics rule that affects chromium electroplating and chromic acid anodizing operations. In addition to Rule 1469, Rule 1402 - Control of Toxic Air Contaminants from Existing Sources also applies to Rule 1469 facilities as discussed below.

Rule 1469 – Hexavalent Chromium

In January 1986, CARB identified hexavalent chromium as a toxic air contaminant in accordance with H&SC Sections 39650, *et seq*. Rule 1169 – Hexavalent Chromium – Chrome Plating and Chromic Acid Anodizing was one of the first source-specific toxic rules and was adopted on June 3, 1988 to reduce hexavalent chromium emissions from chromium electroplating (hard and decorative) and chromic acid anodizing processes. SCAQMD amended Rule 1169 in September 1989 and December 1990.

On October 9, 1998, SCAQMD adopted Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations and repealed Rule 1169. The 1998 adoption of Rule 1469 combined the requirements of Rule 1169, the Chrome Plating state ATCM, and federal NESHAP. Under H&SC Section 39666, air districts have the option of either directly enforcing the ATCM without adopting a regulation, or adopting an equally effective or more stringent regulation. Rule 1469 also included additional monitoring, recordkeeping and reporting requirements, and additional emission standards that in some cases are more stringent than existing requirements for hard and decorative chrome plating operations, and additional requirements for trivalent chrome plating operations, which were already widely practiced by the chrome plating industry.

On May 2, 2003, Rule 1469 was amended. The public rulemaking process included industry representatives, environmental and community groups, staff from SCAQMD and other agencies, technical experts, representatives from the Small Business Alliance and the Ethnic Community Advisory Group, a facilitator, and an independent observer. The proposed amendments set general requirements for all facilities and more stringent requirements for facilities for which the nearest residence or sensitive receptor is within 25 meters or for which the nearest school is within 100 meters. Facilities were required to meet an ampere-hour threshold that is based on a calculated cancer risk of 10 in a million or install controls. In general, facilities were required to meet an emission limit based on ampere-hour thresholds or estimate their cancer risk directly through an emissions inventory and health risk assessment. The 2003 amendments required installation of ampere-hour meters on plating and anodizing tanks, use of certified chemical fume suppressants, housekeeping practices, operating training and certification, and emission limits based on the distance to the nearest residence or sensitive receptor.

On December 5, 2008, Rule 1469 was amended to be consistent with the recently amended Chrome Plating state ATCM. The amendment further reduced hexavalent chromium emissions by setting lower emission limits for some operators and establishing more stringent housekeeping requirements. Additional provisions beyond the ATCM were also incorporated such as more detailed housekeeping requirements, enhanced monitoring, recordkeeping for waste materials, and testing of add-on air pollution control devices. These requirements were intended to ensure compliance and minimize drag-out emissions during chromium electroplating and chromic acid anodizing operations.

Rule 1402 – Control of Toxic Air Contaminants from Existing Sources

Rule 1402 – Control of Toxic Air Contaminants from Existing Sources was adopted by the SCAQMD Governing Board in 1994 and last amended in 2016. The objective of Rule 1402 is to minimize health risks from air toxics. This rule applies to existing facilities within SCAQMD's jurisdiction whose facility-wide toxic air contaminant emissions exceed specific risk levels. Rule 1402 is designed to implement the Air Toxics Hot Spots Program (AB 2588) and requires risk reduction measures if applicable. ~~It~~ AB2588 is a statewide program that collects emissions data of air toxics, identifies facilities having localized impacts, determines health risks, and notifies affected individuals. Individual facilities found to emit high levels of air toxics must submit a Health Risk Assessment to estimate the health risks to the surrounding communities. AB 2588 also allows for air districts to designate "industry-wide source" facilities, where compliance may be handled collectively, rather than individual compliance that would impose severe economic hardships. SCAQMD has identified metal plating and finishing facilities as an industry-wide source category.

Although Rule 1469 facilities are in general identified as industry-wide sources under AB 2588, there are approximately 24 Rule 1469 facilities that are in the core AB 2588 program. Facilities in the core AB 2588 program are generally larger chromium plating or anodizing facilities and are required to report air toxic emissions annually and provide a more detailed air toxics emissions inventory every fourth year (i.e. quadrennial reporting). The AB 2588 emissions reporting covers Rule 1469 equipment as well as other air toxics emitting sources that are not covered under Rule 1469 such as chromium spraying operations, nickel and cadmium plating operations, and any other air toxics emitting processes or equipment. During this quadrennial toxics emissions reporting, SCAQMD staff calculates the facility's priority score. If the priority score is over 10, the facility is required to submit an Air Toxics Inventory Report and Health Risk Assessment ~~if applicable~~. Under Rule 1402, if the cancer health risk is above the action risk level (25 in a million), the facility must submit and implement a Risk Reduction Plan. The Health Risk Assessment is based upon emissions from all processes at the facility, in addition to Rule 1469 sources.

In October 2016, Rule 1402 was amended to add provisions for Potentially High Risk Level Facilities where SCAQMD has evidence that the facility is contributing to a significant health risk – cancer risk greater than 100 in-a-million. Rule 1402 sets the hexavalent chromium reporting thresholds at 0.002 lb/yr; which once exceeded, requires a facility to submit a total facility air toxics emissions inventory to SCAQMD. In addition, state law (H&SC Section 44391) requires any facility with significant risk (100 in a million cancer risk or a chronic hazard index of 5.0 for Rule 1402) to reduce risk.

Other SCAQMD Toxics Rules Regulating Metal Particulates

PAR 1469 includes requirements that are generally based on provisions in other SCAQMD toxics rules, such as, building enclosures, housekeeping measures, best management practices and compliance plans. Examples of rules that include these types of provisions include Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities and Rule 1430 – Control of Emissions from Metal Grinding Operations at Metal Forging Facilities.

Rule 1420.2 addressed fugitive lead emissions through housekeeping and maintenance requirements, and total enclosures of areas where metal melting operations and associated operations are conducted. Additional requirements included a permanent total enclosure with negative air. Rule 1430 required the installation and implementation of point source controls for grinding operations, enclosures, and housekeeping measures at metal forging facilities. Both rules included parameter monitoring to provide greater assurance of continued compliance with point source add-on pollution control equipment.

2015 OEHHA Guidelines

On March 6, 2015, OEHHA approved revisions to their Risk Assessment Guidelines (2015 OEHHA Guidelines). The 2015 OEHHA Guidelines were triggered by the passage of the Children's Health Protection Act of 1999 (SB 25, Escutia) requiring OEHHA to ensure infants and children are explicitly addressed in assessing risk. Over the past decade, advances in science have shown that early-life exposures to air toxics contribute to an increased estimated lifetime risk of developing cancer, or other adverse health effects, compared to exposures that occur in adulthood. The revised risk assessment methodology incorporates the most recent data on infants and childhood and adult exposure to air toxics. The 2015 OEHHA Guidelines incorporate age sensitivity factors and other methodology changes increases the estimated cancer risk for residential and sensitive receptors by more than three times for air toxics such as hexavalent chromium which have multiple pathways of exposure in addition to inhalation. Health risks for off-site worker receptors are similar between the previous and 2015 OEHHA Guidance because the methodology for adulthood exposures remains relatively unchanged. Even though there may be no increase in air toxics emissions at a facility, the estimated cancer risk using the 2015 OEHHA Guidelines is expected to increase.

European Union's European Chemicals Agency

On April 17, 2013, the European Union's (EU's) regulatory authority that implements legislation on chemical safety—the European Chemicals Agency (ECHA)—placed several of the most common forms of hexavalent chromium on its "Authorisation List," citing them as carcinogenic and mutagenic, and classifying them as "substances of very high concern." The compounds that ECHA singled out are chromium trioxide, acids generated from chromium trioxide, sodium dichromate, potassium dichromate, ammonium dichromate, potassium chromate, and sodium chromate. Several of these compounds are used extensively in the chrome electroplating and anodizing processes.

After an established sunset date, chemicals that are placed on the Authorisation List are prohibited from use in, and importation into the EU, unless companies that produce or use them submit applications to exempt them for specific uses. If an application is approved by ECHA, the chemical will continue to be permitted for those uses and in some cases for both upstream

producers and downstream users. The sunset date for the hexavalent chromium compounds was September 21, 2017.

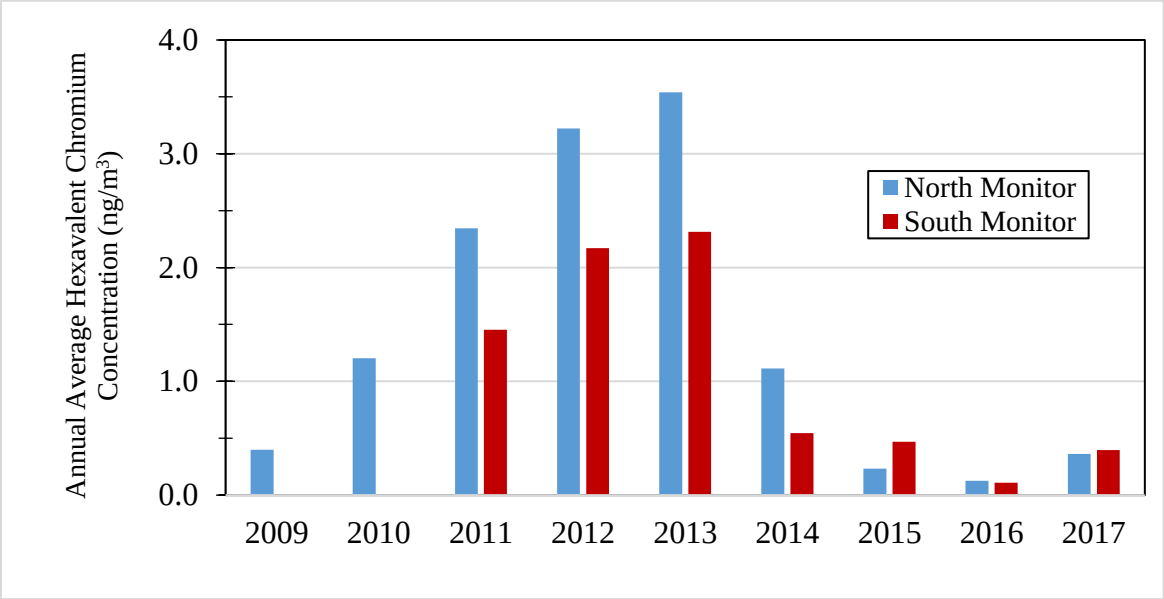
The European Union's Committees for Risk Assessment and Socio-economic Analysis have approved a number of authorisations or exemptions with specific conditions for use of hexavalent chromium applied to the surface of products. These authorisations cover a broad range of industry sectors such as car manufacturing, aerospace, aeronautics but also the manufacture of metals and construction equipment and is made on behalf of a number of downstream users. For more information on the EU's program and authorisations, please refer to their website at https://echa.europa.eu.

AMBIENT MONITORING AND SAMPLING NEAR AND AT CHROMIC ACID ANODIZING FACILITIES

SCAQMD staff conducted ambient monitoring of hexavalent chromium near five chromic acid anodizing facilities located in various cities in the Basin.: One facility was in Newport Beach, a facility in Paramount, a facility in Long Beach, and two facilities in Compton. Hexavalent chromium levels were elevated near the Newport Beach, Paramount, and Long Beach facilities. Based on the 10 monitoring sites in SCAQMD's MATES IV study, average hexavalent chromium levels in the Basin are approximately 0.06 ng/m^3. None of the MATES IV monitors are near Rule 1469 facilities and are generally sited in both residential and light commercial areas throughout the Basin. The MATES IV study can be found here: http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv.

Levels near the Newport Beach facility, as measured by monitors north and south of the facility, were averaging 0.4 ng/m^3 in 2009 (as measured by the north monitor), and rose to over 3.5 ng/m^3 in 2013. The facility began implementing changes to their operational procedures and by the end of 2016 installed and operated control equipment to minimize emissions; the average annual concentration dropped steadily from 2013 to 2016. Average concentration levels were below 0.2 ng/m^3 in 2016. Average emissions in 2017 saw a slight rise to below 0.4 ng/m^3. The increase in emissions in the year, including the more dramatic increase seen in July of 2017, may be attributed to construction work where concrete was being broken up, and the rubble was being removed from the facility.

Figure 1-1: Annual Average Hexavalent Chromium Levels at Newport Beach Facility



On April 4, 2014 and April 16, 2014, SCAQMD staff conducted source testing at the Newport Beach facility. The purpose of the testing was to identify potential causes of elevated ambient hexavalent chromium levels measured. Previously at this facility, high air monitoring results had been reduced by upgrading the filtration system and implementing various control methods to reduce emissions from chromate coating operations. The monitor locations were chosen based on the highest hexavalent chromium ambient monitoring results detected at the facility's Building #2 monitors, and previous highest glass plate sampling results taken by SCAQMD inspectors from Building #2 and #3 locations. Table 1-2 summarizes the results of the first round of emissions testing.

Table 1-2: Newport Beach Facility
Hexavalent Chromium Emissions Test Results from April 4, 2014

Summary of Emissions	Measured Concentration (ng/m^3)	Mass Emission Rate (lb/hr)	Emission Rate (mg/A-hr)
Emissions from Anodizing Tank	222,000	No Data	No Data
Emissions from Sodium Dichromate Seal Tank	217,000	No Data	No Data
Building #2 Roof Vent	6,520	6.82E-04	No Data
Anodizing Tank Control System Exhaust	66.3	7.19E-07	0.0068
Building #3 Roof Vent	18.6	No Data	No Data

SCAQMD staff determined that the fugitive emissions from the chromic acid anodizing process resulted from air agitation, lack of mist suppressant, incomplete emissions capture, and cross-drafts ~~conditions~~ in the room. During the April 4, 2014 test, the anodizing tank was in operation. A

second set of tests were conducted when the anodizing tank was not in operation and Table 1-3 provides a summary of the results to better understand the contribution of other sources.

Table 1-3: Newport Beach Facility
Hexavalent Chromium Emissions Test Results from April 16, 2014

Summary of Emissions	Measured Concentration (ng/m^3)	Mass Emissions Rate (lb/hr)
Emissions from Sodium Dichromate Seal Tank	97,200	No Data
Building #2 Roof Vent	2,510	1.64E-04
Spray Booth #1 Control System Exhaust	36.0	1.43E-06
Interior of Building #3 Above Tap Water Rinse Tank	14.0	No Data
Spray Booth #2 Control System Exhaust	10.8	4.58.E-07

The measured concentration from the sodium dichromate seal tank were less than half of the first test results. As noted above, during this emissions test the nearby anodizing tank was not in operation, indicating that previous emissions test results from the sodium dichromate seal tank may have been elevated due to cross-drafts ~~conditions~~ that transported emissions from the anodizing tank. Since the sodium dichromate tank is an electro-less tank process, it is not regulated under Rule 1469. The elevated levels of hexavalent chromium emissions coming from the sodium dichromate seal tank was more than 13 times the NESHAP's 7,000 ng/m^3 concentration limit for a controlled chromic acid anodizing tank. The elevated levels indicated a need to control these tanks.

Ambient monitoring levels near the Paramount facility were initially near 11 ng/m^3 when monitoring began in the latter part of 2016, and they currently averaged below 0.25 ng/m^3. In addition, ambient monitoring levels near the Long Beach facility were initially near 0.9 ng/m^3 when monitoring began in May 2017, and they currently average below 0.4 ng/m^3. These facilities had various types of equipment subject to SCAQMD rules and regulations and permit requirements. Some of the potential on-site sources of emissions include the chrome anodizing line, nickel and cadmium plating, curing and drying ovens, paint spray booths, abrasive blasting equipment, waste water treatment system, and miscellaneous natural gas combustion sources. In addition, equipment such as tanks, racks, and drums, and operations such as packaging, product transfer, and maintenance and cleaning activities may have the potential to contribute to fugitive emissions. Information on ambient air monitoring in the communities can be found here: http://www.aqmd.gov/home/library/clean-air-plans/air-toxics-action-plan.

Ambient monitoring can provide information about sources that were not known and verification of compliance with an existing rule or regulation. Ambient monitoring near the Rule 1469 facilities in Newport Beach, Paramount, and Long Beach provided information about previously unknown sources of hexavalent chromium emissions. Ambient monitoring was also used to determine ~~monitor the~~ emission trends from facilities after they implemented control measures and installed add-on controls. There are limitations with ambient monitoring, particularly if the monitor cannot be sited in a location that will capture the maximum ground-level concentration for a specific site or if there are multiple sources that are contributing to the reading at the same ambient air monitor. Through the rulemaking for PAR 1469, it was determined that there is

sufficient evidence based on ambient monitoring, emissions testing, and other investigative activities that there are tanks that were not previously known that have significant hexavalent chromium emissions that need pollution controls. As ~~it~~ a result, the focus of PAR 1469 is to require pollution controls on these tanks. The SCAQMD staff will address ambient air monitoring in a separate rulemaking process under Proposed Rule 1480 – Air Toxics Metals Monitoring, which will include a variety of industry sources that have toxic metal particulate emissions.

AFFECTED RULE 1469 FACILITIES

PAR 1469 will affect chromium electroplating or chromic acid anodizing facilities. Based on SCAQMD permitted equipment data and internet searches, industry representatives provided lists of potential Rule 1469 facilities. SCAQMD staff followed up with phone calls to the facility operators inquiring about their operations, and if there was sufficient information indicating the facility could potentially be a Rule 1469 facility, SCAQMD staff visited the facility. SCAQMD staff identified 115 facilities that either conduct decorative or hard chromium electroplating or chromic acid anodizing operations within SCAQMD's jurisdiction. Of the 115 affected facilities, 47 facilities conduct decorative hexavalent chromium plating, 31 facilities conduct hard hexavalent chromium plating, 31 facilities conduct chromic acid anodizing, four facilities conduct trivalent chromium plating only, and two facilities that conduct both chromic acid anodizing and hard hexavalent chromium plating. All 115 facilities are categorized using North American Industry Classification System (NAICS) code listed below in Table 1-1.3. This universe of facilities and tanks were obtained via SCAQMD's equipment permitting database and staff-conducted surveys of facilities.

The majority of chromium electroplating and chromic acid anodizing facilities are considered job shops, which typically perform a wide range of metal finishing services in addition to chromium electroplating (i.e. nickel plating, copper plating) and offer these services for contract. Job shops are independent operators that serve a variety of industries. The most common electroplating processes in job shops include nickel, copper, zinc and chromium. The automotive, computer/electronics, machinery/industrial equipment and defense/government are the four largest segments of industry served by all electroplaters and anodizers. In addition, fasteners are a large industry segment for job shops.

Different from job shops are captive shops used in industries where chromium electroplating is used as a secondary process to aid in production. Captive shops are found within companies that manufacture products rather than specialize in metal plating. In captive shops, the most common processes include nickel, chromium and zinc electroplating and anodizing. Captive shops typically have a higher degree of automation, due to their more predictable finishing requirements.

Table 1-4 NAICS Codes for PAR 1469 Affected Facilities

Industry	NAICS Code	# of Facilities
Fabricated Metal Manufacturing	**332**	**93**
Metal Crown, Closure, and Other Metal Stamping (except Automotive)	332119	1
Saw Blade and Hand Ttool Manufacturing	332216	1
Machine Shops	332710	3
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	332722	2
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	332812	2
Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	82
Plumbing Fixture Fitting and Trim Manufacturing	332913	2
Other Manufacturing	**333-337**	**12**
Other Industrial Machinery Manufacturing	333249	1
Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	333514	1
Cutting Tool and Machine Tool Accessory Manufacturing	333515	1
Other Measuring and Controlling Device Manufacturing	334519	2
Motor and Generator Manufacturing	335312	1
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	336310	1
Other Motor Vehicle Parts Manufacturing	336390	1
Aircraft Manufacturing	336411	1
Other Aircraft Parts and Auxiliary Equipment Manufacturing	336413	2
Showcase, Partition, Shelving, and Locker Manufacturing	337215	1
Wholesale and Retail Trade	**42, 44**	**2**
Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	423860	1
Motorcycle, ATV, and All Other Motor Vehicle Dealers	441228	1
Professional, Scientific, and Technical and Other Services	**54, 56**	**5**
All Other Professional, Scientific, and Technical Services	541990	1
All Other Support Services	561990	4
Repair and Maintenance	**811**	**3**
Automotive Body, Paint, and Interior Repair and Maintenance	811121	1
Other Electronic and Precision Equipment Repair and Maintenance	811219	1
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	1
Total		**115**

PROCESS DESCRIPTION

Chromium electroplating and chromic acid anodizing are electrolytic processes, where parts and substrates are submerged in a bath containing chromic anhydride (CrO_3), commonly called chromic acid. Many of the Rule 1469 facilities have other plating tanks using metals such as nickel and cadmium. Those tanks are covered under a separate rule, Rule 1426.

Hard Chromium Electroplating

Hard chromium electroplating involves depositing a "thick" layer of chromium (measured in thousandths of an inch) on a part, imparting corrosion protection, wear resistance, and lubricity and oil retention, among other properties. Examples of parts, which are hard chromium electroplated, include engine parts and industrial machinery and tools. It is nearly always applied to parts made of steel. Because of the thickness of the electroplating layer, electroplating duration is measured in hours or days.

Decorative Chromium Electroplating

Decorative chromium electroplating involves depositing a thin layer of chromium (measured in millionths of an inch), which gives a decorative and protective finish. Examples of parts which are decorative chromium electroplated include furniture components, bathroom fixtures, and car bumpers and wheels. Electroplating duration is measured in seconds or minutes.

Chromic Acid Anodizing

Chromic acid anodizing involves electrolytic oxidation of a surface to produce a wear and corrosion resistant surface, without depositing a metallic chromium layer. Anodizing is an electrochemical process during which aluminum is the anode. When an electric current passes through the electrolyte, it converts the metal surface to a durable aluminum oxide. The difference between electroplating and anodizing is that the oxide coating is integral to the metal substrate as opposed to being a metallic coating deposition. The oxidized surface is hard and abrasion resistant, and it provides some degree of corrosion resistance.

Electrolytic Tanks

During the electroplating process, hydrogen gas forms very small bubbles, which have high misting potential. The gas bubbles entrain chromic acid and form chromic acid mist at the surface of the electroplating bath. A similar process occurs as oxygen bubbles break the surface of the electroplating bath. The magnitude of emissions depends on several electroplating variables, including the concentration of chromic acid in the bath, ampere-hours used during electroplating, bath temperature, bath purity, and surface tension. Bubble formation due to electrolysis is the primary mechanism by which hexavalent chromium emissions are generated (chemical fume suppressants, discussed at greater length in the Control Technologies Section below, are added to electrolytic tanks to prevent and control bubble formation).

Non-Electroplating or Non-Anodizing Tanks

Chromium electroplating and chromic acid anodizing facilities may have multiple tanks that are in the process line. The tanks either prepare or finish parts that will be anodized or electroplated, but are not considered anodizing or electroplating tanks themselves. Some of these have been identified to contain hexavalent chromium. The tanks contain hexavalent chromium as a by-product of the operation, intentional or unintentional contamination from the previous tank, or

hexavalent chromium is a constituent of the material in the tank. Hexavalent chromium ~~-containing~~ tanks may be heated, air sparged, or rectified. Heated tanks can cause the tanks to reach temperatures that generate bubbles. The gas bubbles contain hexavalent chromium and rupture at the surface, generating hexavalent chromium emissions. Air sparging is the process of agitating the tank bath to create an even mixture. The tank is aerated and bubbles are generated and as a result release hexavalent chromium emissions when they~~it~~ reach~~es~~ the surface. SCAQMD staff identified several tank operations that can be sources of hexavalent chromium emissions, which are discussed below:

- *Drag-Out/Rinse Tanks*
  Following the anodizing or electroplating of a part, the part can be placed in a drag-out/rinse tank. This tank collects liquid from the previous tank and rinses the part. The drag-out tank is a rinse tank initially filled with pure water. Air agitation is often used to aid the rinsing process because there is no water flow in the tank to cause turbulence. The rinse tanks may also be heated, depending upon the operation. As the plating line is operated, no additional water is added to the tank, ~~and~~thus the chemical concentration and the amount of metals in the tank increase~~s~~ as more work is processed. The liquid can remain in the tank or be processed as waste.
- *Seal Tanks*
  Sealing closes the porous surface generated during the anodizing process, which gives the product maximum corrosion resistance~~,~~ and minimizes the wear resistance of the anodized oxide layer. The anodized part is immersed in either hot water, nickel acetate, or dichromate seal. The seal tanks are heated to near boiling temperatures.
- *Passivation Tanks*
  Passivation is a chemical process designed to increase the corrosion resistance of parts. Parts are placed in the tank solution and submerged in a nitric acid bath. A hard non-reactive surface film that inhibits further corrosion forms on the surface. Sodium dichromate can be a constituent in the tank.
- *Stripping Tanks*
  Parts may have an existing layer of chrome coating on them that must be stripped prior to plating. The stripping process may either use a chemical process or use an electrical current to remove the layer. The concentration of hexavalent chromium in stripping tanks can vary by facility. These tanks are often electrolytic as well.
- *Chromate Conversion Tanks*
  Chromate conversion tanks are also referred to as "chem film" tanks. The conversion process converts the surface properties of the substrate by applying a thin protective coating utilizing bath chemistry rather than an electrolytic process.

Rinse Process

Counter-flow Rinsing

Counter-flow rinsing is the process of utilizing multiple rinse tanks connected in series. Fresh water flows into the rinse tank located furthest from the process tank and overflows, in turn, to the rinse tanks closer to the process tank. This technique is called counter-flow rinsing because the work piece and the rinse water move in opposite directions. Over time, the first rinse becomes contaminated with drag-out. The second rinse tank has an even lower concentration of hexavalent

chromium compared to the first rinse tank. The more counter-flow rinse tanks, the lower the water flow needed for adequate removal of the process solution.

Spray Rinsing
Spray rinsing is the use of spray nozzles to rinse parts over process tanks or in a tank. Spray rinsing can significantly decrease drag-out, however, too high a water pressure can cause water that is laden with hexavalent chromium to ricochet off the parts. Hexavalent chromium-laden water that dries on surfaces has the potential to become fugitive emissions. Some facilities use a variety of techniques to contain the hexavalent ~~chromium~~ chromium-laden water spray, such as spray rinsing in a tank or using barriers to contain the spraying operation.

Waste Processing

During hexavalent chromium electroplating or chromic acid anodizing, some portion of the materials used in production is not totally captured as product and can exit the process in wastewater and solid waste. Solids in the plating solution are precipitated out with the addition of chemicals. Further, a multi-stage clarifying system can be used so that a large portion can settle to the bottom as sludge. The sludge is a very wet metal hydroxide mixture that is removed from the treatment tank and can be "dewatered" in filter presses, leaving a wet mud that is generally 25 percent solids by weight. The sludge can be further dried to further reduce moisture content and weight by using a heated dryer. The sludge is stored in containers, such as "super sacks" or larger "roll off boxes," and sent to facilities that are permitted to process hazardous waste.

A difference between hexavalent chromium facilities and other metal plating facilities is the practice to reduce hexavalent chromium to trivalent chromium if the facility processes wastewater on-site. This process is conducted prior to precipitation of solids. A reducing agent, such as sodium bisulfite, is added and reduces hexavalent chromium to trivalent chromium. The hexavalent chromium to trivalent chromium reduction reaction yield is not 100~~%.~~ percent. Hexavalent chromium electroplating and chromic acid anodizing facilities identify the sludge as regulated solid waste F006 and F007 under 40 CFR Section 261.31.

SCAQMD SAMPLING OF HEXAVALENT CHROMIUM IN TANKS

To better identify the potential sources of elevated concentrations of hexavalent chromium, SCAQMD staff conducted hexavalent chromium emission and fluid sampling at various tanks that could potentially be sources of hexavalent chromium emissions. Tables 1-5 through 1-9 summarize the results.

Table 1-5: Results of Sealing Tanks Sampling

Tank Type	Facility	Hexavalent Chromium Content (ppm)	Tank Operating Temperature (°F)	Air Sparging	Surface Area (ft^2)
Sodium Dichromate[1]	Facility B	80,400	200	No	12
Sodium Dichromate	Facility C[3]	Not Recorded	Not Measured	No	12
Sodium Dichromate	Facility E[3]	53,000[2]	203	No	12
Sodium Dichromate	Facility D	32,000	194-212	No	32
Sodium Dichromate	Facility B	24,200	200	No	12
Sodium Dichromate	Facility A	17,000	196	Yes	30
Dilute Chromate	Facility A	100	203	Not Recorded	30
Teflon	Facility C	5	Not Measured	Not Recorded	4.5
Hot Deionized (DI) Water	Facility C	<1	Heated (assumed)	Not Recorded	Not Recorded
Nickel Acetate	Facility B	<1	Heated	Not Recorded	12
Nickel Acetate	Facility C	<1	Not Measured	Not Recorded	11
Nickel Acetate	Facility A	<1	170	Not Recorded	30
Nickel Acetate	Facility F	ND[4]	Heated	Not Recorded	8

[1] Dow #7 (Type III) – used in magnesium anodizing process lines

[2] Highest value taken of a triplicate run

[3] Hexavalent chromium air concentration measurement

[4] Not Detectable

Table 1-6: Results of Chromate Conversion and Dye Tanks Sampling

Tank Type	Facility	Hexavalent Chromium Content (ppm)	Tank Operating Temperature (°F)	Air Sparging	Surface Area (ft^2)
Chem Film	Facility G	2880	Ambient	No	3.75
Chem Film	Facility C	4	Not Measured	Not Recorded	Not Recorded
Chromate Film	Facility D[1]	Not Measured	Ambient	Yes	32
Alodine Clear	Facility F	300	Ambient	Not Recorded	8
Gold Dye	Facility C	8	Not Measured	Not Recorded	Not Recorded
Blue Dye	Facility C	2	Not Measured	Not Recorded	Not Recorded
Black Dye	Facility C	<1	Not Measured	Not Recorded	Not Recorded
Red Dye	Facility C	<1	Not Measured	Not Recorded	Not Recorded
Green Dye	Facility C	<1	Not Measured	Not Recorded	Not Recorded
Heated Dye	Facility F	ND[2]	Heated	Not Recorded	8

[1] Hexavalent chromium air concentration measurement

[2] Not Detectable

Table 1-7: Results of Rinse, Cleaner, and Desmutt Tanks Sampling

Tank Type	Facility	Hexavalent Chromium Content (ppm)	Tank Operating Temperature (°F)	Air Sparging	Electrolytic	Surface Area (ft^2)
Rinse	Facility G	23,200	Heated	No	No	24
Rinse	Facility C	4	Not Measured	Not Recorded	No	Not Recorded
Rinse	Facility D	2	Not Measured	Not Recorded	No	Not Recorded
Rinse	Facility F	<1	Not Measured	Not Recorded	No	Not Recorded
Rinse	Facility C	<1	Not Measured	Not Recorded	No	Not Recorded
DI Rinse	Facility C	<1	Heated	Not Recorded	No	8
DI Rinse	Facility C	2,300	Not Measured	Not Recorded	No	Not Recorded
DI Rinse	Facility C	19	Not Measured	Yes	No	9
Cleaner	Facility C	10	Not Measured	Not Recorded	No	29
Cleaner	Facility H	6	Heated	Not Specified	Yes	24
Desmutt	Facility C	0	Not Measured	Not Recorded	No	3

Table 1-8: Results of Passivation, Etch, Neutralizer, and Stripping Tanks Sampling

Tank Type	Facility	Hexavalent Chromium Content (ppm)	Tank Operating Temperature (°F)	Air Sparging	Electrolytic	Surface Area (ft^2)
Chrome Stripping	Facility I	47,400	Not Measured	No	Yes	64
Chrome Stripping	Facility I	37,000	Not Measured	Not Recorded	Yes	42
Chrome Stripping	Facility M	2,300	Not Measured	Not Recorded	Yes	7.5
Passivate	Facility F	10,100	Heated	No	No	8
Passivate	Facility L	7,200	Not Measured	Not Recorded	No	Not Recorded
Passivate	Facility L	ND[1]	Not Measured	Not Recorded	No	Not recorded
Passivate Rinse	Facility G	210	Not Measured	Yes	No	9
Etch Tank	Facility C	9	Not Measured	Not Recorded	Not Recorded	29
Acid Neutralizer	Facility C	<1	Not Measured	Not Recorded	Not Recorded	6

[1] Not Detectable

Table 1-9: Results for Electrolytic Tier III Tank

Facility	Electrolytic Tank Type	Hexavalent Chromium Results (ppm)	Solution Type
Decorative 1	Stripping	100	Acidic
Hard 1	Stripping	64,000	Caustic
Decorative 2	Stripping	7,000	Caustic
Decorative 3	Stripping	1	Acidic
Decorative 4	Stripping	110	Caustic
Hard 2	Stripping	33,000	Caustic
Decorative 5	Electropolishing	3,000	Caustic
Decorative 6	Electropolishing	860	Caustic
Hard 3	Stripping	37,000/76,000	Caustic
Decorative 7	Electropolishing	3,200	Caustic

Emissions are a greater concern for those tanks that are heated, air sparged or electrolytic as explained earlier in this chapter. High concentrations of hexavalent chromium were found in sodium dichromate seal tanks, electrolytic chrome stripping tanks, electropolishing tanks, passivation tanks, and some rinse tanks. Depending on the design of the facility, rinse waters can have a large variability of hexavalent chromium concentrations. Another factor that contributes

to the hexavalent chromium concentration is the frequency of rinse water change–out for the respective tank. Chem film tanks, dye tanks, and most tanks used in the cleaning process (i.e. several rinse tanks, and cleaner and desmutt tanks) were generally found to have low hexavalent chromium concentrations. Chromate conversion and dye operations are chemical processes that have specific concentrations of hexavalent chromium that are dependent on the required specifications of the bath. Sampling results showed a large variation of hexavalent chromium between various "chem films," but typically a low concentration of hexavalent chromium in dye operations.

Additional sampling was conducted to define the relationship between temperature and tank concentration of hexavalent chromium to the level of hexavalent chromium emissions. SCAQMD staff conducted sampling at different temperature ranges with similar concentrations of hexavalent chromium and the results are shown in Table 1-9 above.

Table 1-10: Results of Sampling of Tanks at Various Temperatures

Tank Type	Tank Hexavalent Chromium Content (ppm)	Tank Operating Temperature (°F)	Run	Tank Hexavalent Chromium Emission Concentration (ng/m^3)	Tank Hexavalent Chromium Emission Rate (mg/hr)	Tank Hexavalent Chromium Emission Rate per Ft^2 ($mg/hr\text{-}ft^2$)
Alodine Tank	347	150	1	37.9	0.037	3.75E-3
			2	25.7	0.025	2.53E-3
			3	58.8	0.054	5.40E-3
			AVG	40.8	0.039	3.89E-4
Alodine Tank	333	160	1	72.7	0.083	8.33E-3
			2	51.3	0.058	5.80E-3
			3	134.9	0.156	1.56E-2
			AVG	86.3	0.099	9.92E-3

SCAQMD staff utilized emission factors to determine what tank concentrations would exceed 0.20 mg/hr. At 150° F, 0.20 mg/hr would be exceeded when tank hexavalent chromium concentrations exceed 1,780 ppm. At 160° F, 0.20 mg/hr would be exceeded when tank hexavalent chromium concentrations exceed 673 ppm. Tanks that operate below 140° F that are not electrolytic nor utilize air sparging would likely not be a source of hexavalent chromium emissions, regardless of the hexavalent chromium concentration in the tank. SCAQMD staff developed a temperature range with corresponding maximum hexavalent chromium concentration for operation of tanks, so that when it was operated it would emit less than 0.20 mg/hr. Figure 1-2 shows steam rising from a heated tank.

Figure 1-2: Photograph Taken During Tank Testing

Table 1-11: Operating Conditions Resulting in Hexavalent Chromium Emissions ≥ 0.20 mg/hr

Temperature of Tank	Maximum Hexavalent Chromium Concentration in Tank
140-150°F	1,500 PPM
150-160°F	500 PPM
>160°F	100 PPM

Industry stakeholders requested a more comprehensive chart by using a curve or formula that would fill in the gaps between specific data points to more finely define operating conditions. Industry stakeholders also commented that add-on controls are expensive for tanks that narrowly meet the definition of a Tier II Hexavalent Chromium Tank and emit at a low uncontrolled emission rate.

SCAQMD staff revised the approach for the tiered tanks by adding an intermediate tier. The uncontrolled emission rate for the intermediate tier is 0.20-0.40 mg/hr. The intermediate tier would not require the use of add-on air pollution controls, but would require the use of other low-cost air pollution control techniques, such as mechanical fume suppressants and tank covers, that would reduce hexavalent chromium emissions to below 0.20 mg/hr. During the permitting process, SCAQMD staff currently uses an emission reduction factor of 0.50 for tank covers and 0.70 for mechanical fume suppressants.

SCAQMD staff used emissions data from source testing of multiple tanks at various hexavalent chromium concentrations and bath temperatures to generate a formula that was then used to develop a table that identified concentration and operating temperature ranges that would result in an uncontrolled emission rate of 0.20-0.40 mg/hr. Staff developed the following two equations based on an uncontrolled emission rate range of 0.20-0.40 mg/hr to define Tier II and Tier III Tanks when considering specific operating temperatures.

$$\text{Lower Concentration Limit (ppm)} = 1.92 * 1042 * [\text{Operating Temp °F}]^{-17.92} - 105.9$$

$$\text{Upper Concentration Limit (ppm)} = 2 * (1.92 * 1042 * [\text{Operating Temp °F}]^{-17.92} - 105.9)$$

Temperature and hexavalent chromium concentrations were developed for temperatures between 140-170° F in increments that would define Tier II and Tier III Tanks.

Table 1-12: Tier II and Tier III Tank Concentration and Temperature Thresholds

Temperature (° F)	Tier II Tank Concentration (ppm)	Tier III Tank Concentration (ppm)
140 to <145° F	5,200 to <10,400	≥10,400
145 to <150° F	2,700 to <5,500	≥5,500
150 to <155° F	1,400 to <2,900	≥2,900
155 to <160° F	700 to <1,600	≥1,600
160 to <165° F	400 to <800	≥800
165 to <170° F	180 to <400	≥400
≥170° F	≥100 to <200	≥200

Tier I, Tier II, and Tier III Tanks were divided into the corresponding categories as shown in Figure 1-3.

Figure 1-3: Categorization of Tier I, Tier II, and Tier III Hexavalent Chromium Tanks

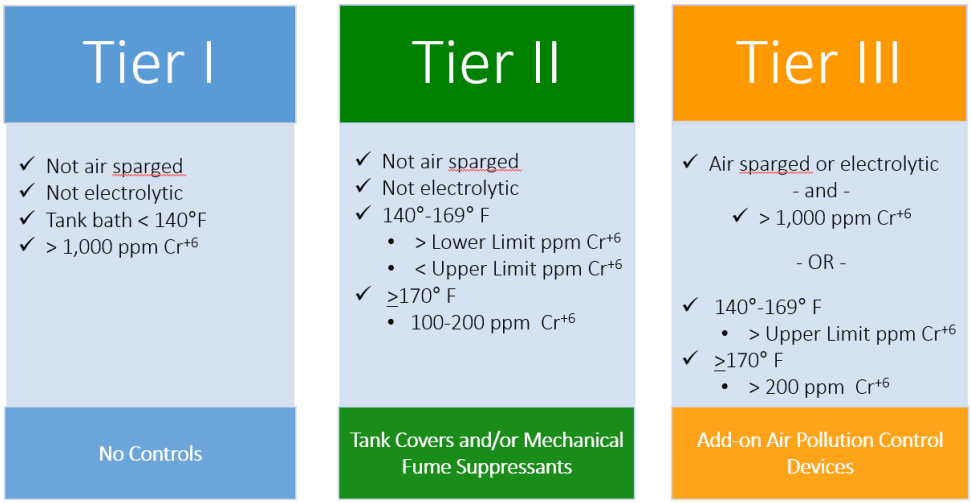
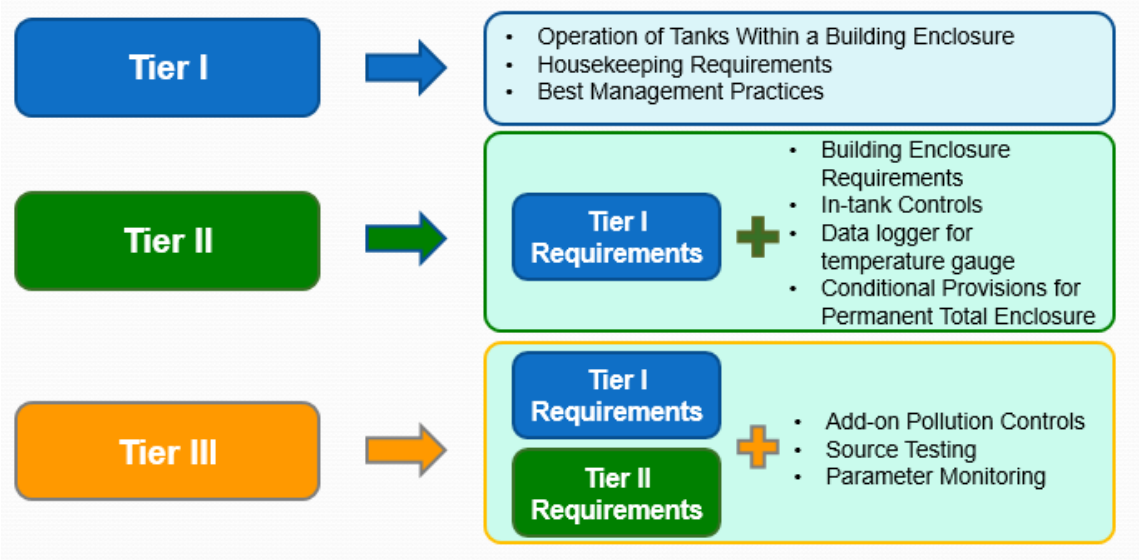


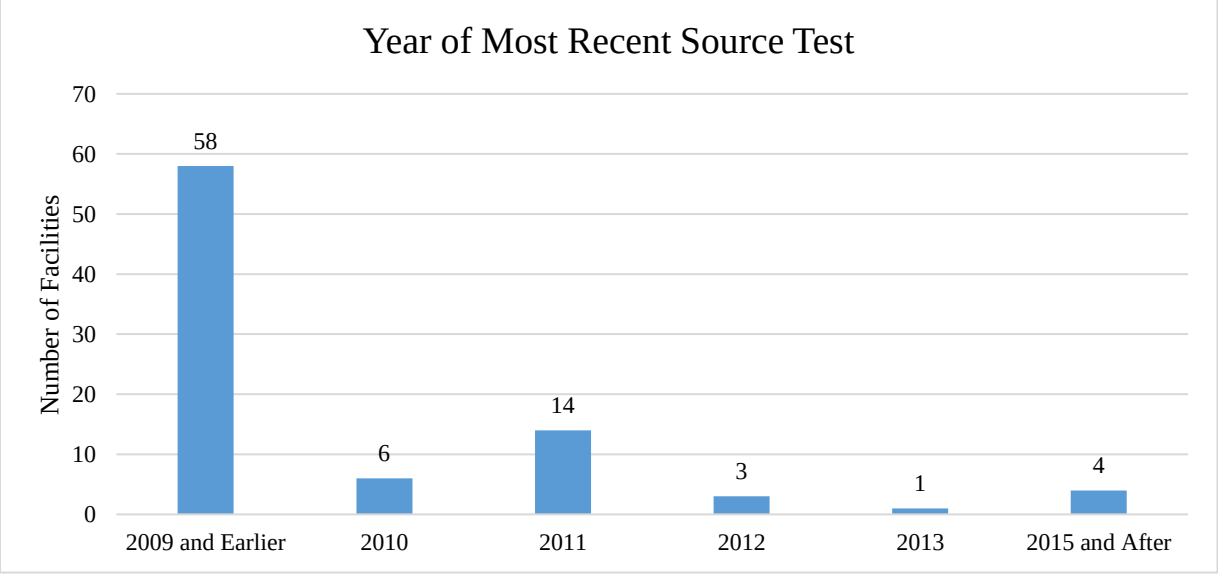
Figure 1-4: Differences Between Tier I, Tier II, and Tier III Hexavalent Chromium Tanks



SUMMARY OF SOURCE TEST RESULTS FOR PLATING AND ANODIZING TANKS

Rule 1469 requires owners or operators to comply with emission rate standards that are demonstrated to be achieved through either in-tank controls, add-on controls, or a combination of methods. Facilities required to achieve the 0.01 mg/amp-hr emission rate may use a certified chemical fume suppressant which has been certified to meet the emission rate at specific surface tension. Facilities required to achieve a more stringent emission rate must verify the performance of control methods or add-on controls through a source test. Rule 1469 currently does not require periodic source testing.

Figure 1-5: Distribution of Most Recent Source Tests



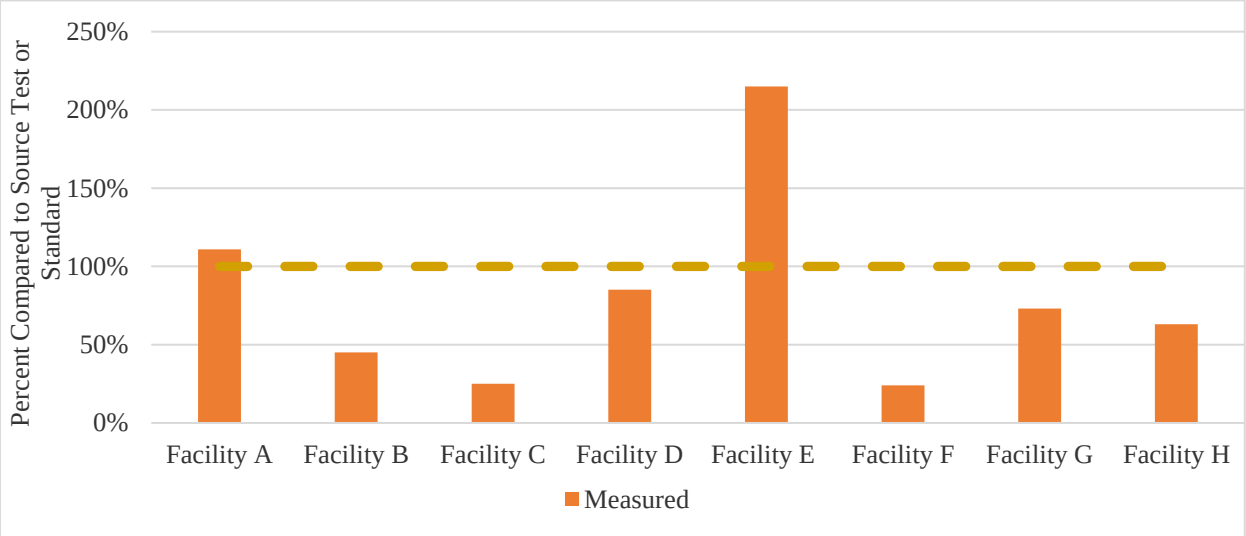
A majority of facilities conducted a source test more than eight years ago. Only four facilities conducted a source test within the last three years and no source tests were conducted in 2014. Periodic source tests are necessary to confirm that the facility's control method or add-on controls are providing sufficient capture and control of hexavalent chromium emissions at a specific emission rate. The source tested emission rate is used to determine an appropriate ampere-hour limit during the permitting process. If a facility operates at a higher emission rate than what was permitted, the hexavalent chromium emissions that would be emitted by the facility would be higher than what was expected.

Slot Velocity Measurements

Under Rule 1469, add-on air pollution control devices are one method of capturing and controlling hexavalent chromium emissions from electrolytic tanks. Hexavalent chromium emissions are captured via a ventilation system that is dependent on a specified velocity of air to ensure sufficient capture efficiency. Rule 1469 requires a periodic qualitative assessment of the performance of add-on air pollution control devices by conducting a smoke test. The smoke test verifies that emissions are moving directly towards the collection device and are not meandering around or moving away from the collection device. However, there is currently no requirement to quantify the slot velocities of the capture system. Recent source tests of add-on air pollution control devices specifies each individual slot velocity at the time of the source test. However, many older tests do not have a listed capture slot velocity. SCAQMD staff was concerned ~~the~~ that slot velocity would degrade~~s~~ over time due to lack of maintenance of the ventilation system and build-up of material in and around the slots leading to the ventilation system. Then the captured amount of hexavalent chromium would be significantly less than 100~~%.~~ percent. If the capture efficiency is not sufficient, hexavalent chromium emissions will not be directed to the pollution control device and will be fugitive.

SCAQMD staff conducted site visits at eight metal finishing facilities and measured the slot velocity of add-on controls using a hot wire anemometer. Generally a minimum slot velocity of 2,000 feet per minute for open tanks and 200 feet per minute for covered tanks is recommended per the *Industrial Ventilation Manual 28th Edition*. The measured slot velocities were generally lower than either the source tests (if available) or the corresponding recommended minimum slot velocities.

Figure 1-6: Slot Velocity Measurements of Emission Collection Systems at Multiple Facilities



Facility E was found to be conducting monthly inspections of the control equipment by performing periodic cleaning of slots of the collection systems, replacing equipment parts of air pollution systems to optimize operation, and utilizing third-party contractors to conduct periodic smoke tests. Owner or operators at facilities with deficient slot velocities conducted infrequent measurement of slot velocities or no measurement of the slot velocities. Requirements to have an owner or operator of facilities periodically measure slot velocities would serve as an additional method to ensure that hexavalent chromium emissions are being collected and directed to the pollution controls.

SITE VISITS

As part of PAR 1469 development, SCAQMD staff conducted site visits at 47 facilities that either conduct chromic acid anodizing or hexavalent chromium electroplating. Beginning in 2015 and continuing into 2018, SCAQMD rules staff performed pre-arranged site visits at these facilities. The site visits focused on housekeeping, emission control methods at electroplating and anodizing tanks, conditions of buildings containing process tanks, grinding operations, and potential facility response to the prohibition of chemical fume suppressants that facilities were utilizing as in-tank controls to prevent hexavalent chromium emissions.

Housekeeping Observations

Rule 1469 has specific conditions intended to prevent the generation of fugitive emissions of hexavalent chromium. These fugitive emissions may be generated due to atomization of ~~chromium~~ chromium-laden liquid, contamination, or uncontained ~~chromium~~ chromium-laden liquid being dried. SCAQMD staff observed the following practices that can lead to fugitive emissions of hexavalent chromium.

Rinsing of Parts

Prior to proceeding to the next tank in the process line, ~~chrome~~ chrome-laden liquid that is adhering to a part or equipment is removed. The owner or operator may utilize a water spray rinse to remove the chrome-laden liquid. SCAQMD staff observed facilities spraying parts above a tank with the rinse water being uncontained. In certain circumstances, a splash guard was utilized to prevent overspray and the splash guard had holes or could be influenced by cross-draft. Also, facilities used high pressure sprays that resulted in ~~had~~ water ricocheting off parts potentially spreading hexavalent ~~chromium~~ chromium-laden liquid beyond the confines of the splash guard and tank.

Drag-Out

When parts are removed from the tank, ~~chrome~~ chrome-laden liquid adheres to the part. More liquid can adhere to the part if the part is pulled up quickly creating a situation where liquid is dragged out from the tank. In some situations, the drag-out liquid is not caught nor contained and lands on the floor. In other situations, owners or operators were observed to utilize drip trays between tanks or other methods to prevent chrome--laden liquid from landing on the floor.

Location of Roof Vents

Roof vents of the building were located above the tank process area. The roof vents function as exhaust fans for the building that pulls air from the building into the atmosphere. Depending on the proximity of the tank and the contents and other parameters of the tank such as temperature and mixing technique, emissions from the tank can escape, uncontrolled, through the roof vents out to the atmosphere.

Flooring Materials That are Difficult to Maintain

Most facilities used either a metal grate or wood planks around tank processing areas. SCAQMD staff observed at one facility, however, that the flooring was constructed out of carpet that could trap ~~chrome~~ chrome-laden liquid. This carpet material would be difficult to clean and would be a potential source of fugitive hexavalent chromium emissions if disturbed and could be tracked out of the building.

Waste Processing Area
Some chromium electroplating or anodizing facilities process waste generated from the tank process. This involves treating wastewater such as reducing hexavalent chromium into trivalent chromium. Suspended solids get separated out from solutions and can be processed in a filter press. The processed solids are known as sludge and treated as waste. SCAQMD staff observed some facilities with process sludge in open containers and dust was observed in the waste processing area.

NEED FOR PROPOSED AMENDMENTS TO RULE 1469

As previously discussed, ambient monitoring and sampling at metal finishing facilities in Newport Beach, Paramount, and Long Beach have shown elevated levels of hexavalent chromium.~~,~~ ~~these~~ These levels were attributed to cross-drafts that allowed hexavalent chromium emissions to escape outside of the building enclosure and hexavalent chromium emitting tanks that are currently not regulated under Rule 1469. Based on ambient monitoring data in Paramount, hexavalent chromium emissions were reduced by more than 75 percent after operators closed a door near the chromic acid anodizing and heated sodium dichromate tank that eliminated a cross-draft in the building opening that allowed emissions to exit the building. This demonstrated the need for certain operating parameters for building enclosures. In addition, emissions testing has shown that certain tanks, such as heated sodium dichromate seal tanks as well as other tanks with specific operating temperatures and hexavalent chromium concentrations that are currently not regulated under Rule 1469 can be a significant source of hexavalent chromium emissions potentially impacting off-site receptors. This demonstrated the need for pollution controls for these tanks and other tanks with similar operating characteristics.

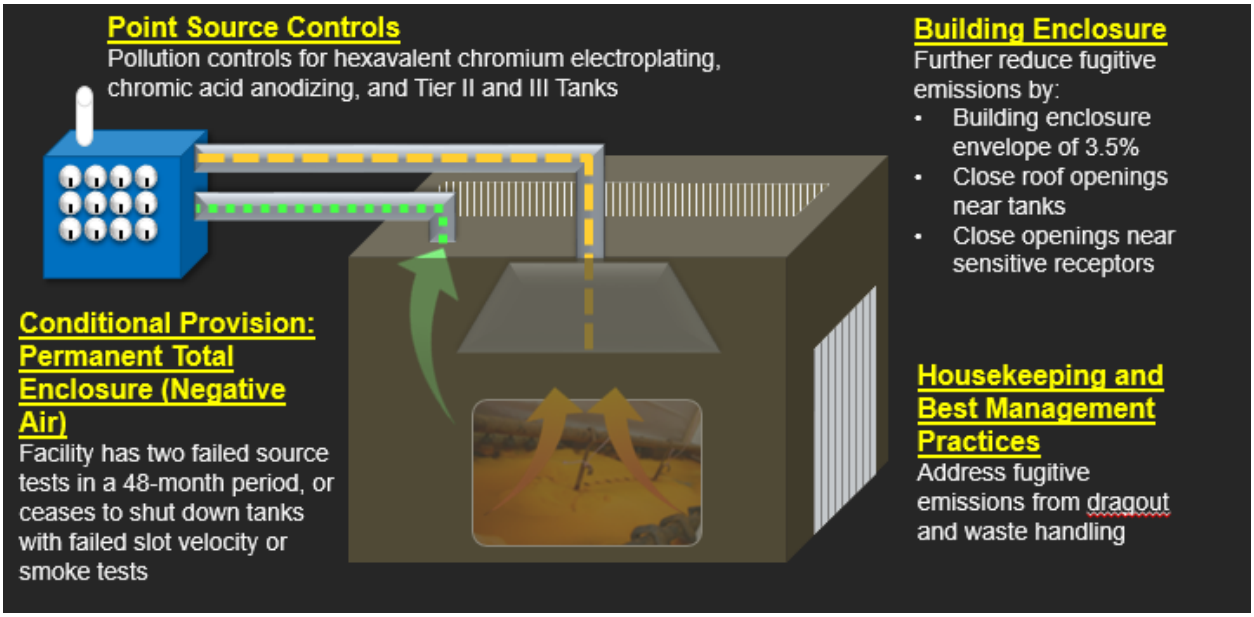
PAR 1469 is needed to address issues found during ambient monitoring and emissions sampling and testing at Rule 1469 facilities in Newport Beach, Paramount, and Long Beach. Based on staff's observations during site visits, the emissions issues identified at these facilities are not unique to their operations and occur at other Rule 1469 facilities that have similar tanks with similar operating characteristics, such as~~,~~ tanks with high concentrations of hexavalent chromium, elevated temperatures, air sparging, or that are rectified.

PAR 1469 is also needed to establish requirements that minimize the release of fugitive hexavalent chromium emissions from buildings. Sources of fugitive hexavalent chromium emissions from Rule 1469 facilities include building cross-drafts~~,~~ and fans and vents that are open to the outside air located above uncontrolled hexavalent chromium emitting tanks. Sampling in roof vents at a facility in Newport Beach and Paramount showed that hexavalent chromium emissions do escape from roof vents. As a result, provisions~~,~~ to minimize roof openings within a specified distance of a Tier II or III Tank are included in PAR 1469. During the rulemaking process, staff took into consideration the affected sources and their concerns. One overarching concern expressed from the Metal Finishing Association was that a number of PAR 1469 facilities are small businesses and their ability to comply with more rigorous requirements such as a permanent total enclosure under negative air vented to air pollution controls. PAR 1469 provides a balance. ~~to~~ It provides public health protection, but has triggers for additional provisions such as a permanent total enclosure for facilities that have consistently shown they cannot meet the point source emission

requirement or fail to adhere to requirements to shut down a tank that fails specific parameter monitoring provisions.

In addition to issues identified through monitoring and sampling, staff identified other Rule 1469 amendments that are needed to minimize fugitive hexavalent chromium emissions. Provisions are needed to ensure ongoing compliance with emission limitation requirements. Currently, Rule 1469 requires a one-time source test of pollution control equipment to confirm compliance with the emission limit. Amended source testing provisions ensure that the pollution controls are operating properly and identify any degradation of the efficacy of the pollution controls that may occur over time. Provisions are also needed to ensure that pollution controls are operating on a continuous basis. PAR 1469 will incorporate provisions to conduct parameter monitoring such as slot velocities measurements on an ongoing basis to ensure ventilation to the pollution controls is operating properly on a continual basis. Figure 1-7 provides a summary of the approach used in the development of PAR 1469.

Figure 1-7: PAR 1469 Approach



PAR 1469 is needed to establish basic best management practices. These relatively low-cost practices will help minimize fugitive hexavalent chromium emissions through the reduction of overspray of hexavalent ~~chromium~~ chromium-laden liquid and reduction of drag-out from parts. Amendments to Rule 1469 are also needed to ensure Rule 1469 is equally as stringent as the recent changes to the federal NESHAP.

Overview of PAR 1469

PAR 1469 seeks to regulate all tanks in hexavalent chromium electroplating and anodizing operations with hexavalent chromium concentrations of 1,000 ppm or greater. The proposed amendments will create three tiers of tanks:

- A Tier I Hexavalent Chromium Tank means a tank permitted to contain a hexavalent chromium concentration of 1,000 ppm or greater and is not a Tier II or Tier III Hexavalent Chromium Tank
- A Tier II Hexavalent Chromium Tank means a tank permitted or operated above 140° that operates within the corresponding hexavalent concentration
- A Tier III Hexavalent Chromium Tank means a tank that is permitted to contain a hexavalent chromium concentration greater than 1,000 ppm, and uses air sparging as an agitation method or is electrolytic. Also, a tank is considered a Tier III Tank if the tank is permitted or operated above 140° and above a corresponding hexavalent chromium concentration.

Tier I, Tier II, and Tier III Tanks will be required to be operated in a building enclosure, and comply with housekeeping requirements and best management practices to minimize fugitive chrome emissions. Tier II and III Tanks will be required to operate with specific building enclosure requirements to minimize fugitive emissions released. Additionally, Tier III Tanks, which have been found to have higher emissions, will be required to be vented to add-on air pollution control devices. Hexavalent chromium tanks that are air sparged or are electrolytic are well-known to generate hexavalent chromium emissions, as discussed in the Process Description section, above. Additionally, staff's emissions sampling found that hexavalent chromium tanks that operate at and above 170°F have significantly higher emissions than tanks operating at or below 140°F. Additional testing demonstrated that there are significant hexavalent chromium emissions when the tank bath temperature became elevated even at concentrations below a Tier I Tank.

Other proposed rule changes include:

- More stringent housekeeping practices for all facilities;
- Revisions to existing housekeeping requirements;
- Increased monitoring and recordkeeping;
- Prescriptive requirements to reduce cross-draft in plating areas; and
- Removal of interim Rule 1469 conditions that are no longer applicable.

Amendments to Rule 1469 are also needed to address recent revisions to the federal NESHAP. The NESHAP incorporates a lower surface tension limit for chemical fume suppressants limit of 40 dynes/cm when using a stalagmometer, or 33 dynes/cm when using a tensiometer and bans the use of PFOS in chemical fume suppressants. Most of the other provisions of the NESHAP are already incorporated into existing Rule 1469. SCAQMD staff has determined that several elements of current Rule 1469 as it stands are equivalent or more stringent than the newly amended NESHAP. Therefore, PAR 1469 proposes incorporating elements of the newly amended federal NESHAP into Rule 1469, along with the addition of several new or more stringent requirements that address fugitive emissions and control recently identified point sources. Rule 1469 is also being amended to provide clarity.

CONTROL TECHNOLOGIES

Several types of controls are available for metal electroplating processes and are currently used for reducing emissions from electroplating operations. They are described below.

High-Efficiency Particulate Arrestors (HEPA)

Used in conjunction with a pre-filter, HEPA filters can trap toxic particles as small as 0.3 µm at an efficiency of 99.97 percent or greater. Like cartridge filters, HEPA filter elements are of pleated construction. HEPA filters are generally limited to ambient temperature (up to 100ºF), though special applications for higher temperatures are available. Unlike bags or cartridge filters, HEPA filters are not automatically cleaned. When a HEPA filter element becomes loaded with particulate matter, the filter is replaced and disposed of as hazardous waste.

Emission Elimination Device (EED)

An EED encloses a process tank while chrome plating is being conducted. The EED incorporates a membrane that allows for free passage of gasses, while effectively blocking the escape of water vapor and chemical mist. The EED is a stand-alone, self-contained unit requiring no supplementary equipment or exhaust outside the facility. Control efficiency is reported to be 100 percent.

Gases generated during the chromium electroplating process escape through the membrane on the EED. Water vapor condenses on the inside walls and top of the enclosure. The condensate runs back into the plating solution. Chromium mist, being heaviest of all by-products and because of the absence of any significant air movement, rises to a limited height and then also falls back into the plating solution. The denser mist, caused by the presence of water vapor mist, further reduces upward mobility of the chromium mist particles. In addition, the water vapor mist and droplets of condensed water provide scrubbing of the air inside the EED.

An adapter is affixed to the top of the plating tank walls with appropriately placed and properly sealed openings for buss bar, plumbing, and electrical conduits, etc. A hinged hood, with counter weights or other mechanical means of openings, is then placed on top of the adapter. A deformable sealing gasket material (compatible with process chemicals) is placed between the tank wall and adapter as well as between the hood and the adapter. An evacuation process is also incorporated into the system as a means of removing any mists or fumes that remain under the hood after the plating process is completed.

Parts to be plated are placed on the buss bars. The contacts must be cleaned and secured to avoid any sparking during plating. After the cover is closed and secured, the rectifier is turned on and the interlocks automatically engage to secure the access door. Interlocks ensure that the door is not opened while plating is being conducted in the tank. When the rectifier is turned off, the evacuation unit automatically turns on and must be run for a specified period.

Mist Suppression at Tank Surface

Applicable to electroplating and anodizing, mist suppression at the surface of the electroplating or anodizing tank is a low-cost, zero-energy, first-step method of mitigating heavy metal (including hexavalent chromium) bearing aerosols before they become entrained in ventilation air and put an unnecessary load on downstream control. Mist suppression is accomplished by floating polyethylene balls covering the wet surface of an electroplating or anodizing tank. Tanks remain fully functional with respect to work-piece submergence and removal, and the aerosol generation is reduced by 50 to 80 percent. Since aerosols are prevented from leaving the tank surface, there is no waste stream associated with this technology.

Wet Packed-Bed Scrubber

Wet packed-bed scrubbers consist of a vertical column made of fiberglass or other non-corrosive material loosely filled with specially shaped plastic packing material which maximizes gas-to-liquid contact and minimizes pressure drop across the column. Exhaust air from an electroplating or anodizing tank line enters at the bottom of the scrubber and exits at the top. The scrubbing solution is pumped from a reservoir at the base of the scrubber and sprayed down into the packing from the top. This flow scheme is called counter-current scrubbing and is the dominant method in use today due to its high pollutant removal efficiency, ranging from 90 to 98 percent, depending on residence (contact) time and solution freshness.

Chevron Mist Eliminators

This air pollution control device is available in different functional designs, the most common being a chevron-shaped baffle pattern which forces mist-laden air to make several abrupt changes in direction between the entry and exit points of the baffle material. Since mist droplets are much heavier than air molecules, they have too much linear momentum to make sharp turns without impacting the baffles. Since many mist droplets strike the baffles, a liquid film forms, causing large droplets to coalesce and drop back down into the piece of equipment being controlled. Mist eliminators are used at the exhaust points of tank vents and wet packed scrubbers to reduce emissions of aerosols and to conserve process and scrubbing solutions, respectively. Since the liquid droplets formed by mist eliminators return to the controlled device, there are no waste streams resulting from their application.

Mesh Pad Mist Eliminators

Mesh pad mist eliminators are used to recover electroplating chemicals of chromium electroplating and chromic acid anodizing. For caustic baths, mesh pads are used to prevent corrosion of the ventilation system. They are also used in scrubber systems for primary removal of particles. However, in this application, multiple exhaust streams are typically combined in a single mist eliminator, thus removing the possibility of chemical recovery.

Mesh pads are considered more efficient than liquid scrubbers. They use smaller amounts of water, making chemical recovery feasible. In a typical arrangement, a mesh pad mist eliminator serves a single electroplating tank and is installed in the ventilation system. The cross sectional area of the exhaust duct is increased by the unit, reducing the velocity of the exhaust stream and allowing electroplating solution to adhere to the mesh pads. Removal efficiency is increased by adding mesh pads. The pads are periodically washed down and the collected electroplating solution is returned to the electroplating bath.

Chemical Fume Suppressants in the Electroplating Industry

Background

Chromium electroplating and chromic acid anodizing generates a large amount of hydrogen and oxygen gas bubbles due to electrolysis. A mist is formed by the bubbles created during electrolysis rising up through the plating solution and bursting through the surface of the plating bath. High speed droplets are ejected from the surface of the solution. The resulting speed of a droplet can be up to 10 m/sec. Collectively, these droplets form a fume or mist. The mist contains chromic acid and provides a transport mechanism for potential emissions of hexavalent chromium.

There are several proven preventive measures that can be implemented to reduce emissions and exposure to hexavalent chromium emissions from plating and anodizing baths. One of these measures is to use a chemical fume suppressant. The most common chemical fume suppressants are surfactant in nature and work by reducing the surface tension of the solution. This has a two-fold effect on the generation of mist. First, reducing surface tension reduces the size of the gas bubbles generated during electrolysis. These smaller bubbles travel slower through the solution and contain less energy than bubbles generated in solutions without a surfactant. Second, the lower surface tension reduces the energy with which the resulting droplets are ejected above the surface of the plating solution. Together, these effects can reduce emissions from the droplets, and therefore mist generation by a large percentage; estimates range from 90% to over 99%. The resultant exposure to emissions of hexavalent chromium is reduced in proportion.

Due to the aggressive chemical and electrochemical environment of chromium plating solutions, most mist suppressants are made from highly stable substances.
Early chemical fume suppressants were of two types: wetting agent fume suppressants that reduce surface tension, and mist suppressants that formed foam blankets. Examples of wetting agent-type mist suppressants include Fumetrol 140, Benchbrite CR-1700 and CR-1800, DisMist NP, Clepo Chrome Mist Control and Macuplex STR.

Development of Wetting Agent Chemical Fume Suppressants

The intent of a wetting agent fume suppressant (WA/FS) is to reduce the surface tension of a liquid. When the surface tension is low, gases escape with reduced resistance leading to a diminished "bursting" effect, leading to ~~less~~ reduced formation of mist. The most common types of WA/FS are fluorinated since fluorine adds stability throughout a wide range of operating conditions including temperature, electric current, chromic acid concentrations, and various chemical reactions.

The first generation WA/FS were hydrocarbon based. While they acted as surfactants, oils layered on the surface and carried over to rinse tanks, making it not as beneficial. Health, safety, and production issues associated with these WA/FS required the plating bath to be dumped more often.

The second generation WA/FS were fluorinated or perfluorinated carbon chains. These compounds were found to be stable in boiling temperatures, high concentrations of chromic acid, and near the highest oxidizing conditions existing at the anodes. However, the low solubility of the WA/FS caused production issues: roughness, porosity, and cracking on the chromium plate during hard chrome plating.

The third generation WA/FS were also perfluorinated, but with higher solubility and lower foaming. There appeared to be no adverse production impacts on the chromium plate during hard chrome plating.

Effectiveness of Third Generation Wetting Agent Fume Suppressants

In 2002, SCAQMD staff conducted a study to establish the performance of third generation WA/FS on the control of emissions of chromium with results published in Nickel and Chromium Emissions from Electroplating Tanks. In particular, staff correlated emissions with reduced surface tensions of the plating bath.

From the data and conclusions in the 2003 SCAQMD Staff Report for Proposed Amended Rule 1469, it is evident that third -generation WA/FS are highly effective in reducing emissions from plating tanks. Data presented in the staff report showed that the observed emission reduction efficiencies ranged from 99.7% to 99.9% when compared with tanks operating without the use of chemical surfactants. These high levels of emission reduction efficiencies are achievable when the surface tension is reduced. WA/FS are one of the means of emissions control for many chromium plating tanks. For decorative and hard chrome plating tanks above a low production threshold, add-on controls, typically involving a scrubber, mesh pads and HEPA filters are also used as secondary controls. It is important to note that for tanks with add-on controls, use of WA/FS reduces inlet loading to the add-on control system by a factor of up to 100 times.

PFOS Fume Suppressants

As described in the U.S. EPA's publication Hard Chrome Fume Suppressants and Control Technologies, prior to 2015, PFOS was commonly used as a surfactant in widely-used mist suppressant products. PFOS is highly resistant to chemical attack and is well suited for use in harsh environments like hot chromic acid plating baths. However, the extremely robust nature of PFOS also means that it is not easily biodegraded or waste-treated and can be released into the environment where it can persist.

The U.S. EPA has expressed concerns about per- and polyfluoroalkyl substances (PFAS) due to toxicity and bioaccumulation. PFAS are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFOA and PFOS have been the most extensively produced and studied of these chemicals. There is evidence that exposure to PFAS can lead to adverse human health effects. PFOS has been classified as persistent, bioaccumulative and toxic.

In response to these concerns, the U.S. EPA has taken a number of regulatory actions to address PFAS substances in manufacturing and consumer products. One of these actions included amending the Chrome Plating NESHAP. On September 19, 2012, the U.S. EPA published final amendments to the Chrome Plating NESHAP. As part of those amendments, effective September 21, 2015, U.S. EPA phased out the use of PFOS in fume suppressants.

On September 21, 2015, CARB and SCAQMD granted California chrome plating facilities a one-year extension from the PFOS ban, due to the lack of alternatives in the marketplace. The additional year allowed for a smooth transition toward the use of non-PFOS fume suppressants while maintaining public health protection from hexavalent chromium emissions. On September

21, 2016, all chromium plating facilities that used a WA/FS were required to use a product certified by the CARB that does not contain PFOS.

Development of Fourth Generation non-PFOS Fume Suppressants

As the phase-out of PFOS fume suppressants approached in 2015 and 2016, chemical fume suppressant manufacturers began development and testing of fourth generation, non-PFOS fume suppressants. These products were tested for certification by manufacturers, with assistance from CARB and SCAQMD at chrome plating facilities in several locations within California. Since September 2016, five non-PFOS fume suppressants were approved for specified chrome plate operations (three products for decorative operations and chromic acid anodizing, and two products for hard chrome plating). These currently certified non-PFOS fume suppressants, along with the surface tension certified for use are included in Table 1-7: Chemical Fume Suppressants Approved for Use at Specific Surface Tensions:

Table 1-12: Chemical Fume Suppressants Approved for Use at Specific Surface Tensions

Chemical Fume Suppressant and Manufacturer	Chrome Plating Applications	Stalagmometer Measured Surface Tension (dynes/centimeter)	Tensiometer Measured Surface Tension (dynes/centimeter)
Fumetrol 21 LF2 Atotech, U.S.A2	Hard plating	< 30	< 27
Dicolloy CRPF ProCom LLC2	Decorative plating and chromic acid anodizing	< 32	< 29
HCA - 8.4 Hunter Chemical LLC2	Decorative plating and chromic acid anodizing	< 25	< 22
HCA - 8.4 Hunter Chemical LLC2	Hard plating	< 33	< 30
Macuplex STR NPFX MacDermid Enthone Industrial Solutions2	Decorative plating and chromic acid anodizing	< 32	< 30

Toxicity Reviews by the California Office of Environmental Health Hazzard Assessment (OEHHA)

OEHHA conducted toxicity literature reviews of the ingredients in the currently certified non-PFOS fume suppressants, as follows:

1. Budroe, J. (2017, June 30). Toxicity of the Fume Suppressant Sodium Diamyl Sulfosuccinate [Letter to Robert Krieger].

2. Silva, R. M. (2015). *6:2 Flurotelomer Sulfonate (FTS/FTSA) and Perfluorohexanoic Acid (PFHxA) Toxicity Review* (Office of Environmental Health Hazard Assessment). Sacramento, CA: OEHHA.
3. Silva, R. M. (2016). *6:2 Fluorotelomer Alcohol (FTOH) Toxicity Review (Office of Environmental Health Hazard Assessment).* Sacramento, CA: OEHHA.
4. Silva, R. M. (2015). *Summary of Reproductive and Developmental Effects of Perfluorohexane Solfonate (PFHxS)* (Office of Environmental Health Hazard Assessment). Sacramento, CA: OEHHA.

Reference Exposure Levels (RELs) are concentrations at or below which adverse health effects are not likely to occur in the general human population. Before RELs are officially adopted by OEHHA under the Hot Spots Program, they undergo internal peer review, one public comment period, two public workshops, and external peer review by the Scientific Review Panel on Toxic Air Contaminants. Interim RELs (iRELs) do not undergo the same comprehensive review process as OEHHA Hot Spots RELs.

Below is a brief summary of the toxicity reviews conducted by OEHHA.

Perfluorohexane Solfonate (PFHxS)
There was some evidence of reproductive toxicity, but insufficient evidence to be conclusive. The review was not exhaustive and more studies are needed to understand the effects. This was, in part, due to the fact that there was limited literature on toxicity available. OEHHA was not able to develop an iREL.

6:2 Fluorotelomer Sulfonate (FTS/FTSA) and Perfluorohexanoic Acid (PFHxA)
The exposure occurs via inhalation or ingestion. FTSA is biopersistent and does not degrade rapidly in soil or water. The evidence suggests relatively lower risk compared to PFOS and PFHxS. There is some evidence of reproductive toxicity, but insufficient evidence to be conclusive. OEHHA was not able to develop an iREL.

6:2 Fluorotelomer Alcohol (FTOH)
The exposure occurs via inhalation and exhibited rapid degradation with a half-life of less than two days in soil. The compound is capable of long distance atmospheric transport and surface contamination, producing potentially toxic responses based on animal studies. OEHHA was able to develop an iREL for Acute exposure: 20 ppb; 8-Hour exposure: 2 ppb; and Chronic 1 ppb exposures.

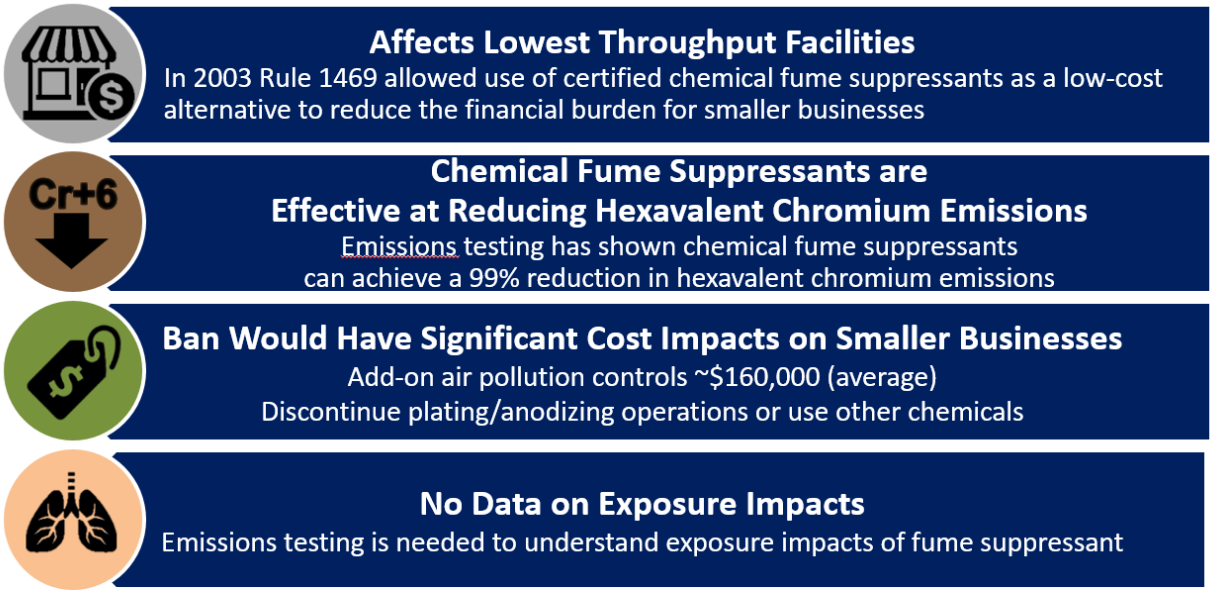
Sodium Diamyl Sulfosuccinate
There was insufficient information to make conclusions due to the limited literature on toxicity available. OEHHA was not able to develop an iREL.

Additional details regarding the specific studies used for the toxic literature review, exposure pathways, and the approach can be found in OEHHA's literature review.

Toxicity Concerns of Certified non-PFOS Chemical Fume Suppressants

Over the past several years there has been an increasing concern about PFAS, PFOA, and PFHxS chemicals. There have been numerous articles regarding the toxicity and the bio-accumulative health effects of these chemicals. Although most of the discussions have focused on ground water contamination and its use near manufacturing facilities and as a fire retardant, there is a growing concern about the health effects of the use of these materials in chemical fume suppressants used at metal finishing facilities. In May of 2018, the USEPA held a National Leadership Summit in Washington D.C. to share information on the ongoing efforts to characterize the risks from PFAS and develop monitoring and treatment cleanup techniques. Although the SCAQMD was not invited to participate in the Leadership Summit, staff will monitor the efforts on the national level and will be conducting additional emissions testing for chemical fume suppressants to better understand the amount of these chemicals that are released during the metal finishing process.

Chemical fume suppressants are able to reduce the surface tension and hexavalent chromium emissions from plating and anodizing tanks. Their effect reduces both inlet loading to air pollution control equipment and protects workers within plating and anodizing facilities from breathing mist containing hexavalent chromium, a known human carcinogen.



However, based on the conclusions from the toxicity reviews conducted by OEHHA, SCAQMD staff is looking further into additional measures to address the potential toxicity of these products while acknowledging the preliminary nature of the reviews. Other alternatives include using reformulated chemical fume suppressants that do not contain toxic compounds of concern, however, this is mainly dependent on the interest and willingness from manufacturers to develop and make these products available. Another option for facilities would be the installation of add-on air pollution control devices to reduce hexavalent chromium emissions. Staff recognizes that this may be a costly option for some smaller Rule 1469 facilities and is working with stakeholders to look at possible funding that can help sources to accelerate and incentivize the installation of add-on air pollution control devices and/or phase out hexavalent chromium from affected tanks.

Trivalent Chromium in Decorative Electroplating

An alternative to hexavalent chromium decorative electroplating that has existed since the 1970s is trivalent decorative electroplating. In the 2003 amendment to Rule 1469, staff discussed trivalent chromium decorative electroplating as a potential alternative to hexavalent chromium electroplating with the advantages and disadvantages summarized in the table below.

Table 1-13: Summary Table of Trivalent Chromium Electroplating

Advantage	Disadvantage
• Lower metal concentrations • No reduction step • Higher rack densities • Lower current density • Fewer rejects • Reduced drag-out • No fumes	• Differences in color • Higher cost • More careful control of plating conditions required • End product is darker and not as shiny

Staff visited two PAR 1469 facilities that do not conduct hexavalent chromium electroplating and utilize trivalent chromium electroplating. One facility electroplated clothing racks and the other facility electroplated furniture. Both facilities utilized a third-party company to periodically conduct an analysis of various bath constituents and advise them of necessary modifications to the bath. The third-party company measured concentrations of proprietary chemicals in the bath that included a chemical called a brightener and whitener. The facility representatives indicated that that the brightener and whitener allowed the finish to be closer to that of hexavalent chromium. However, both facility representatives expressed concern about the durability and resistance of the finish to outdoor elements. One facility representative indicated that trivalent chromium would develop pitting within six months and that previous chemistry produced a part that had a yellowish tinge compared to the blue tinge produced by hexavalent chromium. PAR 1469 has significantly ~~less~~ fewer requirements for trivalent chromium electroplating compared to hexavalent chromium electroplating making the path to compliance more affordable. During, the development of PAR 1469, various stakeholders expressed a preference requiring facilities to use trivalent chromium instead of hexavalent chromium. To avoid a conflict with a federal requirement that requires the use of hexavalent chromium, a ban of the use of hexavalent chromium would need to occur at the federal level.

Figure 1-8: Photographs of Trivalent Chromium Electroplated Products

Staff contacted PAVCO, a distributor of a trivalent chromium that provided the following information:

There are two chemistries available for trivalent chromium electroplating: chloride electrolyte and sulfate electrolyte. The color scale for the sulfate electrolyte is closer to pure white and is used by most clients within SCAQMD's jurisdiction. While the color scale for sulfate electrolyte is the closes to hexavalent chromium, it is more sensitive to metallic contamination such as iron and nickel.

Table 1-14: PAVCO's Comparison of Trivalent Chromium and Hexavalent Chromium Electroplating

Advantages for Trivalent Chromium Electroplating	Advantages for Hexavalent Chromium Electroplating	Comparable Properties
• Lower current density needed • Can fit more parts on rack • Less treatment of wastewater needed • Lower scrap factor	• Plates faster • Better activation inside parts; passivate hard to reach areas • Color is more stable over time • Less expensive chemistry • Less attention to detail required	• Equivalent corrosion protection of plated surface based on Copper Activated Salt Spray (CASS) • Comparable cost when accounting for higher cost of trivalent chemistry vs. higher cost of control requirements and treatment of wastewater for hexavalent chromium

CHAPTER 2: SUMMARY OF PROPOSED AMENDED RULE 1469

PROPOSED AMENDMENTS TO RULE 1469

PROPOSED AMENDMENTS TO RULE 1469

Proposed amendments to Rule 1469 establishes additional requirements for facilities that conduct chromium electroplating or chromic acid anodizing. The intent of the rule is to further reduce hexavalent chromium emissions by addressing both fugitive emissions and point-source emissions. Fugitive hexavalent chromium emissions are addressed through additional housekeeping and maintenance activity requirements, and building enclosures of areas that may lead to hexavalent chromium emissions. New point-source controls are required for hexavalent chromium ~~-containing~~ tanks that have been identified based on certain operating parameters to be sources of hexavalent chromium emissions. Facilities will also be required to conduct periodic source tests to verify that add-on air pollution control devices are performing as intended. This chapter outlines changes and additions made to the current version of Rule 1469 and is divided into sections as they appear in PAR 1469.

Purpose – Subdivision (a)

Consistent with other SCAQMD rules, a purpose provision was added to PAR 1469. The purpose of PAR 1469 is to reduce hexavalent chromium emissions from facilities that perform chromium electroplating or chromic acid anodizing operations, and other activities that are generally associated with chromium electroplating and chromic acid anodizing operations.

Applicability – Subdivision (b)

PAR 1469 applies to facilities that conduct chromium electroplating or chromic acid anodizing operations. PAR 1469 expands the applicability to other hexavalent chromium emitting process tanks that are associated with electroplating or chromic acid anodizing tanks.

PAR 1469 removes the language in this subdivision requiring compliance with SCAQMD Rule 1401 and Rule 1401.1. This language was deleted since PAR 1469 does not preclude compliance with SCAQMD Rule 1401 and Rule 1401.1. Similarly, the existing language transferred from the state's Chrome Plating ATCM regarding prohibitions on chromium electroplating and chromic acid anodizing kits have also been removed since Rule 1469 facilities are still subject to those requirements.

Definitions – Subdivision (c)

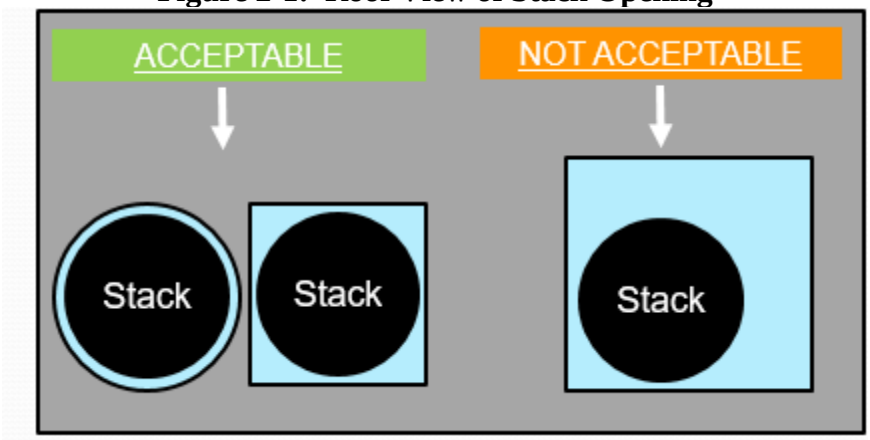
PAR 1469 modifies or adds the definitions of the following terms used in the proposed amendment. Please refer to PAR 1469 for actual definitions. Key changes are summarized below:

- ADD-ON AIR POLLUTION CONTROL DEVICE (modified)
- ADD-ON NON-VENTILATED AIR POLLUTION CONTROL DEVICE (added)
- AIR POLLUTION CONTROL TECHNIQUE (modified)
- APPROVED CLEANING METHOD (added)
- ASSOCIATED PROCESS TANK (added)
- BARRIER (added)
- BREAKDOWN (removed)
- BUILDING ENCLOSURE (added)
- ENCLOSURE OPENING (added)
- FUGITIVE EMISSIONS (modified)
- HIGH EFFICIENCY PARTICULATE ARRESTORS (HEPA) (modified)

- HEPA VACUUM (added)
- LOW PRESSURE SPRAY NOZZLE (added)
- MECHANICAL FUME SUPPRESSANT (modified)
- METAL REMOVAL FLUID (added)
- PERFLUOROOCTANE SULFONIC ACID (PFOS) BASED FUME SUPPRESSANT (added)
- PERMANENT TOTAL ENCLOSURE (added)
- SCHOOL (modified)
- STALAGMOMETER (modified)
- TANK PROCESS AREA (added)
- TENSIOMETER (modified)
- TIER I HEXAVALENT CHROMIUM TANK (added)
- TIER II HEXAVALENT CHROMIUM TANK (added)
- TIER III HEXAVALENT CHROMIUM TANK (added)
- WEEKLY (modified)

The definition for enclosure opening was added and is any permanent, designed opening in a building enclosure or permanent total enclosure, such as passages, doorways, bay doors, and windows in a building enclosure. Stacks, ducts, and openings to accommodate stacks and ducts are not considered enclosure openings. These openings are specifically designed to accommodate a stack or duct and do not function as a general opening. Ducts where there is a gap between the duct and the roof opening should generally conform to the duct opening, but does not need to be the same shape. Figure 2-1: Roof View of Stack Opening demonstrates the differences between the two.

Figure 2-1: Roof View of Stack Opening



The added definitions for Tier I, Tier II, and Tier III Hexavalent Chromium Tanks are noteworthy as many of the proposed amendments to Rule 1469 are associated with the newly added tanks that are potential sources of hexavalent chromium emissions.

The definitions for these tanks are as follows:

- TIER I HEXAVALENT CHROMIUM TANK means a tank permitted for a hexavalent chromium concentration of 1,000 parts per million (ppm) or greater and is not a Tier II or Tier III Hexavalent Chromium Tank.

As discussed in Chapter 1, SCAQMD staff sampled a number of tanks and the results showed that some tanks that are not currently regulated under Rule 1469 can contain high levels of hexavalent chromium. Tanks containing a hexavalent chromium concentration of 1,000 ppm or greater were included in this definition –because it is consistent with the federal NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks that are required to meet specific housekeeping practices. PAR 1469 will require Tier I Hexavalent Chromium Tanks to be subject to both the existing and newly added requirements for housekeeping and best management practices of the rule.

There is concern about hexavalent chromium ~~-containing~~ tanks operating under conditions that can generate hexavalent chromium emissions outside of a tank. Hexavalent chromium ~~-containing~~ tanks that are heated, air sparged, or electrolytic can generate hexavalent chromium emissions. High concentrations of hexavalent chromium were found by SCAQMD staff in sodium dichromate seal tanks and chrome stripping tanks with similar operating characteristics. These tanks are newly defined in PAR 1469 as follows:

- TIER II HEXAVALENT CHROMIUM TANK means a tank that is operated or permitted to operate by the SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified below and is not a Tier III Hexavalent Chromium Tank.

Temperature (° F)	Tier II Tank Concentration (ppm)
≥ 140 to <145	≥ 5,200 to < 10,400
≥ 145 to <150	≥ 2,700 to < 5,500
≥ 150 to <155	≥ 1,400 to < 2,900
≥ 155 to <160	≥ 700 to < 1,600
≥ 160 to <165	≥ 400 to < 800
≥ 165 to <170	≥ 180 to < 400
≥170	≥ 100 to < 200

- TIER III HEXAVALENT CHROMIUM TANK means a tank that is operated or permitted to operate by the SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified below; or

Temperature (° F)	Tier III Tank Concentration (ppm)
≥ 140 to <145	≥ 10,400
≥ 145 to <150	≥ 5,500
≥ 150 to <155	≥ 2,900
≥ 155 to <160	≥ 1,600
≥ 160 to <165	≥ 800
≥ 165 to <170	≥ 400
≥170	≥ 200

  - Contains a hexavalent chromium concentration greater than 1,000 ppm, and uses air sparging as an agitation method or is electrolytic; or
  - Is a hexavalent chromium electroplating or chromic acid anodizing tank.

Based on sampling and testing data conducted by the SCAQMD discussed in Chapter 1, tanks containing any concentration of hexavalent chromium that are operated below 140° F have not been shown to exhibit elevated hexavalent chromium emissions. Additional sampling and testing data have demonstrated a correlation between temperature of the bath and hexavalent chromium tank concentration. Elevated temperatures correlated with hexavalent chromium emissions at low concentrations. Tier II Hexavalent Chromium Tanks have the potential to emit hexavalent chromium emissions at a rate between 0.20 mg/hr to 0.40 mg/hr. Therefore, Tier II Hexavalent Chromium Tanks are allowed to utilize other low-cost controls such as mechanical fume suppressants or tank covers to reduce hexavalent chromium emissions to below 0.20 mg/hr. Additional thresholds were added in determining a Tier III Hexavalent Chromium Tank. Tier III Hexavalent Chromium Tanks are subject to separate requirements for emission controls explained later in this chapter.

Requirements – Subdivision (d)

Subdivision (d) establishes the requirements for PAR 1469. Paragraph (d)(1) has been revised to require a separate meter to be hardwired for each hexavalent chromium electroplating or chromic acid anodizing tank instead of for each rectifier.

Paragraph (d)(2) has been revised to clarify two terms: –1) electroplating refers to chromium electroplating; and 2) anodizing tank refers to a chromic acid anodizing tank.

Paragraph (d)(4) has been added to require any Tier I, Tier II, or Tier III Hexavalent Chromium Tank to be operated within a building enclosure beginning 90 days after date of rule adoption. This provision requires that Tier I, Tier II, or Tier III Tanks be operated within a building enclosure, as defined by this rule. A building enclosure is a permanent building or physical structure, or portion of a building, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off), with limited openings to allow access for people, vehicles, equipment, or parts. A room within a building enclosure that is completely enclosed with a floor, walls, and a roof would also meet this definition.

Paragraph (d)(5) has been added to require any Tier II or Tier III Hexavalent Chromium Tank to be operated within a building enclosure that meets additional requirements in subdivision (e). This provision does not require that a Tier I Tank be operated within a building enclosure that meets the additional requirements under subdivision (e) such as limitations on enclosure openings.

Requirements for Building Enclosures for Tier II and Tier III Hexavalent Chromium Tank(s) – Subdivision (e)

PAR 1469 adds requirements to operate any Tier II or Tier III Hexavalent Chromium Tank within a building enclosure that meets specific requirements under paragraphs (e)(1) through (e)(9) beginning 180 days after date of rule adoption. As discussed above, Tier I Hexavalent Chromium Tanks are required to operate within a building enclosure, however, the building enclosure where a Tier I Tank is operated (provided there is not a Tier II or III Tank) is not required to meet the additional requirements of this subdivision. The following summarizes those requirements for building enclosures for Tier II and III Hexavalent Chromium Tanks

Paragraph (e)(1) establishes requirements for enclosure openings for a building enclosure. Under this paragraph, the combined area of all building enclosure openings, including any roof openings for passage of equipment or vents through which fugitive hexavalent chromium emissions can escape from the building enclosure, shall not exceed 3.5% of the building enclosure envelope, which is calculated as the total surface area of the building enclosure's exterior walls, floor and horizontal projection of the roof on the ground. This requirement is based on U.S. EPA's Method 204 for Permanent Total Enclosures, however, unlike Method 204, building enclosures under PAR 1469 are not required to be under negative air pressure. As such, the requirement for a 5% allowance for openings in the building enclosure has been decreased to 3.5% to compensate for the absence of having a building enclosure vented to an add-on air pollution control device. Information on calculations for the building enclosure envelope, including locations and dimensions of openings counted toward the 3.5% allowance are required to be provided in the compliance status reports pursuant to paragraphs (p)(2) and (p)(3).

PAR 1469 identifies the type of openings that are not counted towards the 3.5% enclosure opening allowance. As specified in paragraph (e)(1), openings that close or consist of the following shall not be counted toward the combined area of enclosure openings:

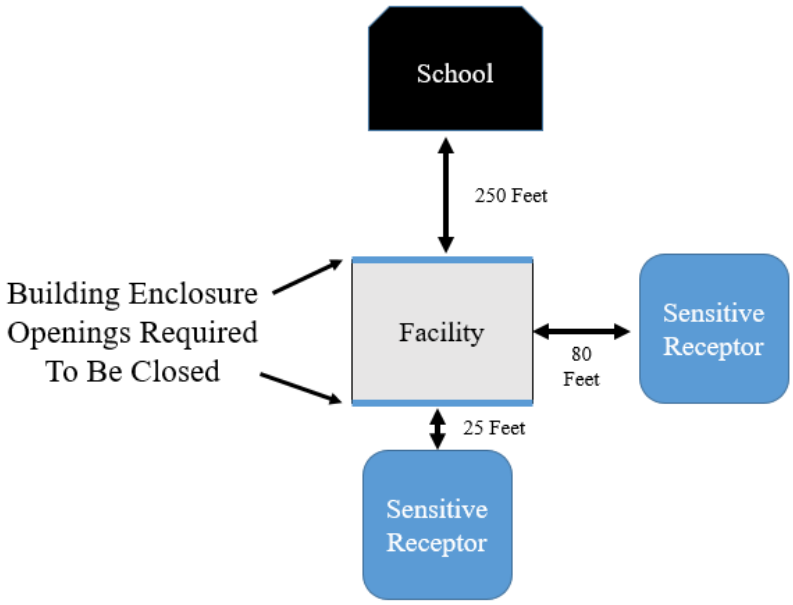
- ✓ Door that automatically closes;
- ✓ Overlapping plastic strip curtains;
- ✓ Vestibule;
- ✓ Airlock system, or
- ✓ Alternate method to minimize the release of fugitive emissions from the building enclosure that the owner or operator can demonstrate to the Executive Officer that is an equivalent or more effective method(s) to minimize the movement of air within the building enclosure. This provision allows the owner or operator to develop other low-cost methods that were not identified during the rulemaking.

Paragraph (e)(2) establishes the requirements to eliminate or minimize cross-draft that can occur when openings at opposite ends of building enclosure are open. Under this paragraph, owner or operators are required to ensure that any building enclosure opening that is on opposite ends of the building enclosure where air movement can pass through are not simultaneously open except

during the passage of vehicles, equipment or people, not to exceed two hours, by either closing or using one or more of the methods for the enclosure opening(s) on one of the opposite ends of the building enclosure specified in subparagraph (e)(1)(A) through (e)(1)(E). Although PAR 1469 does not require the owner or operator of facility to either monitor or record the time the enclosure openings are open, if an operator is observed or information is obtained to show that an enclosure opening remains open for more than two hours, that would be a violation of the provisions. A provision was added to PAR 1469 also allows use of a barrier, such as a large piece of equipment, a wall, or any other type of barrier that restricts air movement from passing through the building enclosure to meet this requirement.

Paragraph (e)(3) establishes the additional requirements for enclosure openings that are facing a sensitive receptor or school. Except for the movement of vehicles, equipment or people, the owner or operator is required to close any building enclosure opening or use any of the methods listed under paragraph (e)(1), that directly faces and opens towards the nearest: (1) sensitive receptor, with the exception of a school, that is located within 100 feet, as measured from the property line of the sensitive receptor to the building enclosure opening; (2) ~~School~~ school that is located within 1,000 feet, as measured from the property line of the school to the building enclosure opening. If there are multiple sensitive receptors that are located within 1,000 feet of an enclosure opening, only the nearest enclosure opening would be required to be closed. Similarly, if there are multiple schools or early educations centers that are located within 1,000 feet of an enclosure opening, only the nearest enclosure opening to the school would be required to be closed. The maximum enclosure openings that would be required to be closed under this paragraph would be two. Through the rule development process, a number of comments from stakeholders were made regarding sufficient air intake and concerns that PAR 1469 would require that all enclosure openings be closed, impacting worker comfort and safety. This provision combined with other provisions for enclosure openings such as the 3.5% enclosure opening allowance and closing openings that can lead to cross-draft provide additional protections for the community and sensitive receptors, while acknowledging the need to provide air intake for workers that are located in the building enclosure.

Figure 2-2: Building Enclosure Openings Required To Be Closed



Paragraph (e)(4) establishes requirements for enclosure openings, specifically roof openings. Under this paragraph, the owner or operator is required to ensure that all roof openings that are located within 15 feet from the edge of any Tier II or Tier III Hexavalent Chromium Tank are closed, except for roof openings that are used to allow access for equipment or parts, provide intake air for a building enclosure that does not create air velocities that impact the collection efficiency of a ventilation system for an add-on air pollution control device, or roof openings that are equipped with a HEPA filter or other air pollution control device. This provision is included in PAR 1469 because emissions testing from vents near a Tier III Tank and samples from vents and roof tops of buildings where Tier II and III Tanks were operated showed that hexavalent chromium emissions can escape through roof vents and accumulate on roof tops. These fugitive emissions leaving the building can lead to elevated levels of hexavalent chromium detected by ambient monitors. It should be noted that the definition of enclosure opening under PAR 1469 does not include stacks, ducts, and openings to accommodate stacks and ducts.

Paragraph (e)(5) establishes requirements when there is a breach in a building enclosure that is located near a Tier II or III Tank. A breach can be a break, rupture, crack, hole, large gap in the building enclosure. Under this paragraph, the owner or operator is required to repair a breach in a building enclosure that is located within 15 feet of the edge of any Tier II or III Tank within 72 hours of discovery. The provision establishes who to call and the procedures for a time extension to repair the breach, if needed.

Paragraph (e)(6) provides procedure to follow if there are specific provisions under paragraphs (e)(1) through (e)(4) that cannot be complied with due to safety or local building requirements. Regarding worker safety, stakeholders asked which agency requirement for the construction and/or operation of building enclosure took precedence: SCAQMD or Cal-OSHA/Federal OSHA. PAR 1469 acknowledges that a building enclosure should not be designed to conflict with either Cal-OSHA/Federal OSHA's requirements, or other municipal codes or agency requirements related directly to worker safety, and instead should be constructed in a manner that is compliant with all

agency requirements. This may require the owner or operator of a facility to install additional equipment or modify the existing structure. Paragraph (e)(6) provides a mechanism for an owner or operator of a facility to allege that a Cal-OSHA/Federal OSHA or other municipal codes or agency requirements directly related to worker safety conflict with PAR 1469. The owner or operator shall notify the Executive Officer and submitting a Building Enclosure Compliance Plan that explains why a provision or provisions in paragraphs (e)(1) through (e)(4) cannot be met and the alternative compliance measures that shall be implemented. During the rulemaking process, SCAQMD staff contacted Cal-OSHA staff, and based on their review of the building enclosure provisions Cal-OSHA staff commented that there are not minimum ventilation rate for plating facilities and based on their review of PAR 1469 no conflicts between Cal-OSHA requirements and PAR 1469 were found. In the event that there is a conflict, however, PAR 1469 establishes a process to ensure that requirements from the referenced agencies can be implemented in a manner that minimizes release of fugitive emissions while maintaining worker safety.

Paragraph (e)(7) establishes the provisions for approval and disapproval of the Building Enclosure Compliance Plan if an owner or operator submits one under paragraph (e)(6). Under paragraph (e)(8) the owner or operator will have 90 days upon receiving approval from the Executive Officer to implement the approved alternative compliance measures. The owner or operator of a facility that implements and maintains the approved alternative compliance measures shall be deemed to have met the applicable requirements specified in paragraphs (e)(1) through (e)(4).

Paragraph (e)(9) incorporates a provision that allows an owner or operator to delay meeting certain building enclosure requirements if add-on pollution controls will be installed or are required for Tier II or III Hexavalent Chromium Tanks. Tier II or Tier III Hexavalent Chromium Tank(s) may introduce heat and humidity that were vented using building enclosure openings, which if closed, could cause the facility's working environment to become excessively hot and humid. In lieu of a facility installing additional ventilation systems for the building enclosure, the add-on air pollution control device for a Tier II or Tier III Hexavalent Chromium Tank(s) would be able to control the heat and humidity. Therefore, the owner or operator of a facility that is installing an add-on air pollution control device to for either a Tier II or Tier III Hexavalent Chromium Tank(s) shall be exempt from paragraphs (e)(1) and (e)(4) until the add-on air pollution control device has been installed and commenced normal operations.

Housekeeping Requirements – Subdivision (f)

PAR 1469 moves housekeeping requirements from the requirements subdivision to its own dedicated subdivision (f). Amended provisions include the following:

- No changes to paragraph (f)(1) and (f)(2) regarding storage of chromic acid power or flakes.
- A modification to paragraph (f)(3) that requires the use of an approved cleaning method (see the definitions section for details about the types of cleaning that included in this term).
- Paragraph (f)(4) requires the use of an approved cleaning method when cleaning requires surfaces and it modifies the frequency from at least once every seven days to weekly.
- Paragraph (f)(5) was modified to require that containers that hold chromium or chromium-containing waste material shall be kept closed at all times except when filling or emptying. Based on site-visits, many facilities were already implementing this practice. Waste

containers can be a source of hexavalent chromium if left open and this codifies a current practice.

- Paragraph (f)(6) requires that on each day when buffing, grinding, or polishing, the owner or operator shall clean floors within 20 feet of a buffing, grinding, or polishing workstation. The requirements of (f)(6) shall not apply to owner or operators that utilize a metal removal fluid to control buffing, grinding, or polishing operations.
- Paragraph (f)(7) has been added to require owners or operators to remove any flooring in the tank process areas that is made of fabric or fibrous material such as carpets or rugs where hexavalent chromium materials can be trapped. Examples of acceptable flooring material are wooden floor boards and other solid material that can be cleaned and maintained as prescribed by the rule.
- Paragraph (f)(8) has been added to require owners or operators to conduct measures prior to and during the cutting of roof surfaces to prevent the generation of fugitive dust emissions:
    - Prior to being cut, affected roof surface areas shall be cleaned by using a HEPA vacuum; and
    - Minimize fugitive emissions during cutting activities, by using method(s) such as a temporary enclosure and/or HEPA vacuuming; and
    - Notify the SCAQMD at least 48 hours prior to the commencement of any roof cutting activities into a building enclosure by calling 1-800-CUT-SMOG
- Paragraph (f)(9) requires that if a HEPA vacuum is used to comply with housekeeping provisions of subdivision (f), that the HEPA filter is free of tears, fractures, holes or other types of damage, and securely latched and properly situated in the vacuum to prevent air leakage from the filtration system.

Previous requirements pertaining to establishing a physical barrier between buffing, grinding, or polishing and where chromium electroplating or chromic acid anodizing have been moved to subdivision (g) - Best Management Practices. Previous requirements pertaining to compressed air cleaning have also been moved to subdivision (g) - Best Management Practices.

For the purposes of PAR 1469, any time the roof surface of a building enclosure that is subject to subdivision (e) is intentionally broken, the action is considered to be cutting of the roof. This can include the installation of skylights, installation of vents, and construction of air pollution control devices on the roof. It should be noted that SCAQMD Rule 1403 applies to any renovation or demolition activity, and that the owner, operator, or any certified asbestos contractor for these activities will need to comply with the provisions of SCAQMD Rule 1403.

Best Management Practices – Subdivision (g)

PAR 1469 creates a new subdivision (g) for Best Management Practices. Best Management Practices prescribe how an owner or operator shall conduct electroplating or anodizing and other ancillary operations to prevent the release or generation of fugitive emissions.

Paragraph (g)(1) provides clarification for provisions for minimization of drag-out for automated and non-automated lines. For facilities with automated lines, the owner or operator can utilize methods other than drip trays such as other containment devices to prevent hexavalent chromium-containing liquid from falling between electroplating or anodizing tanks. Additional cleaning

requirements include cleaning residue on the drip tray or other devices used for containing liquids. Facilities without automated lines shall handle parts in a manner that does not cause hexavalent chromium-containing liquid to drop on the floor. There are no proposed amendments to provisions regarding splash guards and cleaning splash guards.

Paragraph (g)(2) prohibits owners or operators from spray rinsing parts or equipment that were previously in a Tier II or Tier III hexavalent chromium tank, unless the part or equipment are fully lowered inside a tank where the liquid is captured inside the tank. Provisions under paragraph (g)(2) must be implemented beginning 90 days after date of adoption. If an owner or operator chooses to spray rinse above a process tank, they must ensure that any hexavalent chromium-containing liquid is captured and returned to the tank, and:

- Install a splash guard at the tank that is free of holes, tears or openings. Splash guards shall be cleaned weekly; or
- For tanks located within a process line utilizing an overhead crane system that would be restricted by the installation of splash guards, a low pressure spray nozzle may instead be used and operated in a matter that water flows off of the part or equipment.

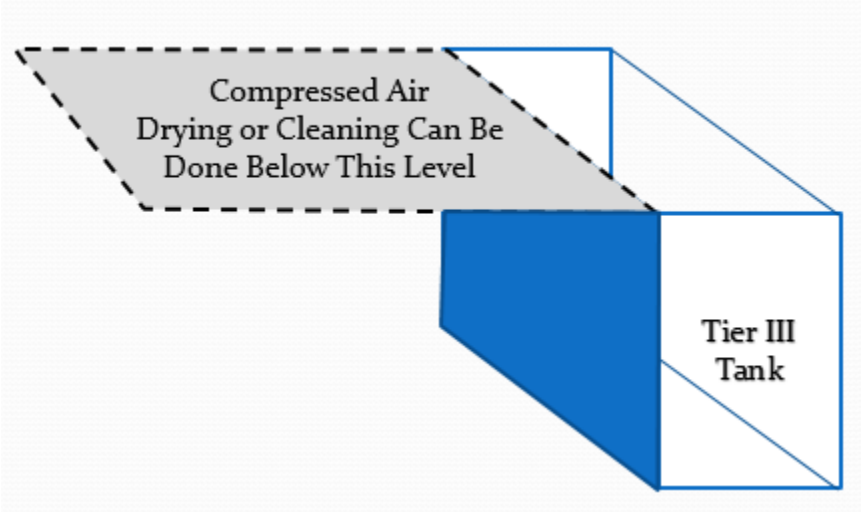
Subparagraph (g)(2)(B) which allows use of low pressure spraying was added based on input from stakeholders. During the development of PAR 1469, industry stakeholders requested consideration of the practice of using spray nozzles on the rack system that would rinse the part prior to moving onto the next finishing process. The water would be either applied in a misting manner or with a low pressure spray nozzle that does not create overspray. The low pressure spray was determined to be 35 pounds per square inch based on the definition of low pressure for residential water pressure.

Beginning 60 days after date of adoption, paragraph (g)(3) requires owners or operators to label each tank within the tank process area with a tank number or other identifier, bath contents, maximum concentration (ppm) of hexavalent chromium, operating temperature range, any agitation method used, and its status as a Tier I, Tier II, or Tier III Hexavalent Chromium Tank. Tank labeling will help operators as well as SCAQMD inspectors identify Tier I, II, and III Tanks and to ensure the appropriate operating conditions are maintained.

Beginning 90 days after date of adoption, paragraph (g)(4) requires all buffing, grinding, and polishing operations to take place within a building enclosure, while paragraph (g)(5) relocates the existing requirement to have a barrier that separates the buffing, grinding, or polishing area within a facility from the chromium electroplating or chromic acid anodizing operation. Both requirements prevent the generation of particulates that could act as a transportation medium for hexavalent chromium.

Paragraph (g)(6) prohibits compressed air cleaning or drying within 15 feet of all Tier II or Tier III Hexavalent Chromium Tank(s) unless a barrier separates those tanks from compressed air cleaning or drying operation, or the compressed air cleaning or drying is conducted in a permanent total enclosure. A tank wall may function as a barrier as long as parts are compressed air cleaned or dried below the lip of the tank as shown in Figure 2-3: Compressed Air Drying Near Tier II or Tier III Tank.

Figure 2-3: Compressed Air Drying Near Tier II or Tier III Tank



The concern is that particulates from those areas may become airborne, or the compressed air cleaning/drying may be conducted in a manner that impacts the collection efficiency of an add-on air pollution control device.

Air Pollution Control Technique Requirements – Subdivision (h)

PAR 1469 creates a new subdivision (h) for requirements regarding add-on air pollution control devices and emission standards. A summary of the provisions of subdivision (h) are described below.

Paragraph (h)(1) is an existing provision that prohibits the removal of pollution control equipment unless it is replaced with an air pollution control technique that meets the requirements for PAR 1469 Table 1 – Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks.

Subparagraph (h)(2)(A) consolidates the emission standards and control requirements for existing, modified, and new hexavalent hard and decorative chromium electroplating and chromic acid anodizing facilities (see definitions) into PAR 1469 Table 1. For reference, this table is provided below in Figure 2-4.

Figure 2-4

Table 1: Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks

Facility Type	Distance to Sensitive Receptor (feet)	Annual Permitted Amp-Hrs	Hexavalent Chromium Emission Limit (mg/amp-hr)	Minimum Air Pollution Control Technique
Existing Facility	≤ 330[1]	≤ 20,000	0.01	Use of Certified Chemical Fume Suppressant at or below the certified surface tension.[3]
Existing Facility	≤ 330[1]	> 20,000	0.0015[2]	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Existing Facility	> 330[1]	≤ 50,000	0.01	Use of Certified Chemical Fume Suppressant at or below the certified surface tension.[3]
Existing Facility	> 330[1]	> 50,000 and ≤ 500,000	0.0015[2]	Use of an air pollution control technique that controls hexavalent chromium.
Existing Facility	> 330[1]	> 500,000	0.0015[2]	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Modified Facility	Any	Any	0.0015[2]	Using an add-on air pollution control device(s), or an approved alternative method pursuant to subdivision (i).
New Facility	Any	Any	0.0011[2]	Using a HEPA add-on air pollution control device, or an approved alternative method pursuant to subdivision (i).

[1] Distance shall be measured, rounded to the nearest meter, from the edge of the chromium electroplating or chromic acid anodizing tank nearest the sensitive receptor (for facilities without add-on air pollution control devices), or from the stack or centroid of stacks (for facilities with add-on air pollution control devices), to the property line of the nearest sensitive receptor. The symbol ≤ means less than or equal to. The symbol > means greater than.

[2] As demonstrated by source test requirements under subdivision (k).

[3] Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr as demonstrated through source test requirements under subdivision (k).

Additionally, all effective dates for notification to the Executive Officer, emission standards, permit application submittals, and control requirements were removed as these dates have passed and are in full effect.

Subparagraph (h)(2)(B) retains the siting requirements for New Chromium Electroplating and Chromic Acid Anodizing Facilities.

All requirements to conduct a facility-wide screening health risk assessment have been removed in this subdivision because these assessments are currently addressed by SCAQMD's ongoing

program for new source review of toxics (Rule 1401 and 1401.1) and implementation of AB 2588 (Rule 1402).

Paragraph (h)(3) applies to decorative chromium electroplating processes using a trivalent chromium bath. PAR 1469 revises the requirement to utilize a *certified* chemical fume suppressant to remove the word "certified", as certification at the state level only required for ~~this of~~ hexavalent chromium electroplating and chromic acid anodizing operations. PAR 1469 adds that chemical fume suppressants cannot contain PFOS for consistency with the NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.

Emission Controls and Standards for Tier III Hexavalent Chromium Tanks (h)(4) Excluding Chromium Electroplating and Chromic Acid Anodizing Tanks

Paragraph (h)(4) adds new requirements for Tier III Hexavalent Chromium Tanks that are not chromium electroplating or chromic acid anodizing tanks. These tanks are required to be vented to an add-on air pollution control device or an approved alternative compliance method pursuant to subdivision (i). These tanks must comply with the following specific hexavalent chromium emission limits:

- 0.0015 mg/amp-hr, for existing facilities, if any tank(s) vented to an air pollution control device are electrolytic; or
- 0.0011 mg/amp-hr, for new facilities, if any tank(s) vented to an air pollution control device are electrolytic; or
- 0.20 mg/hr, if all tanks vented to the add-on air pollution control device are not electrolytic and the ventilation system has a maximum exhaust rate of 5,000 cfm or less; or
- 0.004 mg/hr-ft^2, with the applicable surface area based on the surface area of all Tier III Hexavalent Chromium Tank(s) and other tanks required to be vented to an add-on air pollution control device with a SCAQMD Permit to Operate, provided all tanks are not electrolytic, if the ventilation system has a maximum exhaust rate of greater than 5,000 cfm.

Compliance with these limits must be demonstrated by a source test.

For existing and new facilities with electrolytic Tier III Hexavalent Chromium Tanks that are not chromium electroplating or chromic acid anodizing, the emission standard is consistent with the emission standard in Table 1 of PAR 1469 (Figure 2-4) for chromium electroplating and chromic acid anodizing tanks.

The emission limit for non-electrolytic Tier III Hexavalent Chromium Tanks is based on review of 80 source tests conducted on existing add-on air pollution control equipment venting chromium electroplating and chromic acid anodizing tanks. The source tests were conducted from 1999 through 2016. Of the 80 source tests, approximately 20 source tests were not used in the analysis as they either vented multiple electroplating or anodizing tanks or the source test was conducted with very high amperes that were not representative of the normal operations. The average emission rate for the remaining source tests was 0.18 mg/hr. Additionally, due to the fact that uncontrolled hexavalent chromium emissions from non-electrolytic tanks are typically much lower than that of electroplating and anodizing tanks, staff believes that these non-chromium electroplating or chromic acid anodizing Tier III Tanks can meet an emission limit of 0.20 mg/hr.

Subparagraph (h)(4)(B), establishes the compliance schedule to submit permit applications for add-on pollution controls for Tier III Tanks. A staggered implementation schedule is proposed to provide a reasonable distribution of work for consultants, SCAQMD permitting, conducting source tests, etc. For Tier III Hexavalent Chromium ~~-Containing~~ Tanks that are in operation prior to date of rule adoption, the owner or operator shall submit a permit application to SCAQMD for the add-on air pollution control devices based on the ~~primary~~ electrolytic operation conducted at the facility as specified in PAR 1469 Table 2. For reference, this table is provided below in Figure 2-5.

Figure 2-5
Table 2: Permit Submittal Schedule for Add-on Air Pollution Control Devices for Previously Existing Tier III Hexavalent Chromium Tanks

Electrolytic Process at the Facility	Compliance Date for SCAQMD Permit Application Submittal for Add-on Air Pollution Control Device
Chromic Acid Anodizing	[180 Days after Date of Rule Adoption]
Hard Chromium Electroplating	[365 Days after Date of Rule Adoption]
Decorative Chromium Electroplating	[545 Days after Date of Rule Adoption]

If a facility has multiple chromium electrolytic processes occurring, the earliest compliance date would apply to the facility.

A source test is required to be conducted prior to the issuance of a SCAQMD Permit to Operate the add-on air pollution controls. Also, beginning no later than 30 days after rule adoption until the subject add-on air pollution control device is installed, the owner or operator is required to cover the subject tank no later than 30 minutes after ceasing operation of the tank. Tank covers are to be free of holes, tears, or gaps and handled in a manner that does not lead to fugitive emissions.

Subparagraph (h)(4)(C) establishes the compliance dates that an owner or operator a facility is required to install an add-on air pollution control device or implement an alternative compliance method or Hexavalent Chromium Phase-Out Plan to meet the hexavalent chromium emission limits specified in subparagraph (h)(4)(A). The owner or operator of a facility is required to install an add-on air pollution control device to meet the requirements under subparagraph (h)(4)(A) no later than 12 months after a Permit to Construct for an add-on air pollution control device has been issued by the Executive Officer. If an owner or operator elects to meet the requirements of (h)(4)(A) by implementing an approved alternative compliance method the owner or operator shall comply with the timeframe specified in the approved alternative compliance method. Further, if an owner or operator elects to phase out the use of hexavalent chromium in a chromium electroplating or chromic acid anodizing tank the approved Hexavalent Chromium Phase-Out Plan shall be submitted no later than two years after it is approved by the Executive Officer.

Under subparagraph (h)(4)(~~C~~D), an owner or operator is not subject to the requirements of venting a Tier III Hexavalent Chromium Tank to an add-on air pollution control device if the uncontrolled

hexavalent chromium emission rate is less than 0.2 mg/hr, as demonstrated by a SCAQMD approved source test conducted pursuant to the Technical Guidance Document for *Measurement of Hexavalent Chromium Emissions from Chromium Plating and Chromic Acid Anodizing Operations for Certification of Wetting Agent Chemical Mist Suppressant Subject to SCAQMD Rule 1469.* ~~The technical guidance document referenced uses the same process in certifying chemical fume suppressants.~~

Emission Controls and Standards for Tier II Hexavalent Chromium Tanks (h)(5)

Beginning 90 days after date or rule adoption, paragraph (h)(5) adds a provision that requires Tier II Tanks to utilize a tank cover, mechanical fume suppressant, or other method approved by the Executive Officer. Alternatively, the owner or operator may meet the emission reduction requirements of a Tier III Hexavalent Chromium Tank specified in subparagraphs (h)(4)(A) and (h)(4)(B).

Paragraph (h)(6) requires facilities to operate add-on air pollution controls at the applicable minimum hood induced capture velocity specified in the most current edition (i.e. at the time the permit application was deemed complete by SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*.

Alternative Compliance Methods for Existing, Modified, and New Hexavalent Decorative and Hard Chromium Electroplating and Chromic Acid Anodizing Facilities – Subdivision (i)

Subdivision (i) retains the option to operate under an alternative compliance method ~~as currently allowed for in Rule 1469~~ <u>to meet the emission limits specified in paragraphs (h)(2) and (h)(4)</u>. The alternative compliance option is available for existing, modified, and new facilities if the owner or operator can demonstrate that the alternative method(s) is enforceable, provides an equal or greater hexavalent chromium reduction, or greater risk reduction than compliance with the emission limits of specified in paragraphs (h)(2) and (h)(4). An owner or operator that elects to use an alternative method must submit an SCAQMD permit application that includes information specified in Appendix 7 of PAR 1469.

PAR 1469 removes the following paragraphs as they refer to past interim compliance options:

- Alternative Interim Compliance Options – Inventory and Health Risk Assessment
- Alternative Interim Compliance Options – Emission Reduction Plan
- Alternative Interim Compliance Options – Facility wide Mass Emission Rate
- Alternative Interim Compliance Options – Alternative Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities with Low Annual Ampere Hour Usage

The alternative interim compliance options are no longer options and facilities will be required to comply with the respective requirements specified in subdivision (h).

Training and Certification – Subdivision (j)

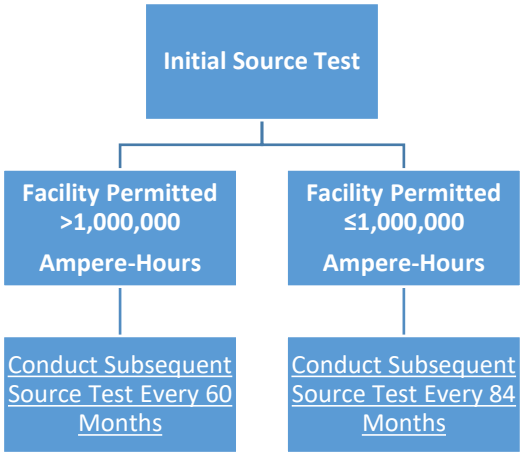
Previously the requirements for training and certification were located in paragraph (c)(7). The requirements has been moved to its own dedicated subdivision (j).

Source Test Requirements and Test Methods – Subdivision (k)

The subdivision has been renamed and relocated from subdivision (e) to (k). Currently, Rule 1469 only requires an initial source test either by 2009 or during installation. Periodic source tests are necessary to verify the continued performance of both the capture and control of hexavalent chromium emissions for add-on air pollution control devices specified in this rule. Although parameter monitoring can verify the operation of specific elements of the add-on air pollution control device, source tests allows for the comprehensive evaluation of the system.

Paragraph (k)(1) establishes source test requirements for the initial and subsequent source tests. Currently, Rule 1469 only requires an initial source test. Periodic source testing is needed to ensure that add-on pollution control equipment is operating properly and to that the emission limit is being achieved. As discussed in Chapter 1, staff did observe slot velocities that were below the needed air flow to ensure that emissions were being properly collected and moved towards the pollution control equipment. Throughout the rulemaking process, periodic source testing requirements were modified from once every other year to once every five or seven years depending on the facility's permitted annual amp-hours. Based on stakeholder input, the frequency of periodic subsequent source tests was modified based on the permitted amp-hours. Subparagraph (k)(1)(A) establishes the schedule for protocols and initial and subsequent source tests to meet the emission limits of paragraphs (h)(2) and (h)(4) in Table 3 – Source Tests Schedule in PAR 1469. In general, facilities with greater than 1,000,000 permitted annual amp-hours are required to source test no later than 60 months from the day of the most recent source test that demonstrates compliance with all applicable requirements and facilities with less than or equal to 1,000,000 permitted annual amp-hours are required to source test no later than 84 months from the day of the most recent source test that demonstrates compliance with all applicable requirements.

Figure 2-6: Flowchart Showing Source Test Requirements



Subparagraph (k)(1)(B) allows an owner or operator to submit a written request for additional time to conduct the initial source test. This subparagraph specifies the procedures of when the Executive Officer must be notified, the information that must be included in the notification, and the timing for approval to allow use of this provision.

Subparagraph (k)(1)(C) establishes provisions that allow an owner or operator to use an existing source test that was conducted after January 1, 2015 for compliance with provision for the initial source test provided the applicable emission limits in subdivision (h) are demonstrated, operating conditions during the source test are representative of current operating conditions, and the appropriate test methods were used. This provision reduces the impact to facilities that recently conducted a source test.

Subparagraph (k)(1)(D) establishes provisions for when a source test was conducted after January 1, 2015, however, the source test was not approved. Under this subparagraph, provided the owner or operator submits the source test to the Executive Officer for approval no later than 30 days after date of adoption, the Executive Officer will review the source test to verify if it can be used and meets the same criteria subparagraph (k)(1)(C).

Subparagraph (k)(1)(E) establishes provisions that require an owner or operator that is relying on a source test conducted after January 2015 under subparagraph (k)(1)(C) to conduct the first subsequent source test no later than January 1, 2024 and then follow the source testing schedule for subsequent source tests as specified in Table 3 – Source Tests Schedule of PAR 1469.

Subparagraph (k)(1)(F) clarifies that an owner or operator that elects to meet an emission limit specified in a paragraph (h)(2) using a certified wetting agent chemical fume suppressant or a certified alternative to a wetting agent chemical fume suppressant shall not be subject to the requirements of subparagraph (k)(1)(A). The rule interpretation for both the regulated community and the SCAQMD was that a facility using a certified wetting agent chemical fume suppressant is not required to conduct a source test. A source test was performed during the certification process, which established a corresponding surface tension limit with the emission limit of 0.01 mg/ampere-hour.

Provisions for use of an Existing Performance Test in this subdivision were removed as the dates have passed and the provisions are no longer relevant.

Paragraph (k)(2) establishes requirements for approved test methods, test methods for add-on non-ventilated air pollution control devices, and methods to measure surface tension. There were no substantive changes to these provisions. This paragraph included clarifications that emissions testing for add-on non-ventilated air pollution control devices shall be conducted in accordance with Appendix 5 of PAR 1469.

Use of Emissions Screening Tests (k)(3)

Subparagraph (k)(3)(A) includes new ~~provisions~~ requirements to PAR 1469 that allow the use of emissions screening tests. In lieu of conducting a source test for *subsequent* tests, the owner or operator may conduct an emission screening of hexavalent chromium. The emissions screening test shall:

- Consists of one run to evaluate the capture and control of hexavalent chromium emissions;
- Follow a source test protocol approved by Executive Officer; and
- Be representative of the operating conditions during the most recent source test

The owner or operator of a facility that previously submitted source test protocols approved by the Executive Officer may use an emissions screening test in lieu of a source test. An emissions screening test requires only one run to evaluate the hexavalent chromium emissions from a Tier II or Tier III Hexavalent Chromium Tank as opposed to the three runs required for a full source test.

Under subparagraph (k)(3)(B), an owner or operator with a SCAQMD approved source test conducted after January 1, 2009 will be allowed to conduct an emissions screening test to satisfy the requirements of conducting the *initial* source provided the subject source test met the criteria stated above. This subparagraph includes provisions that allow an operator to submit a source test that was conducted after January 1, 2009 for approval.

The emissions screening test of hexavalent chromium will show whether the air pollution control technique is operating and performing as intended. While parameter monitoring may evaluate the performance of capture periodically, the emissions screening test allows the verification of emission limits. Owners or operators may utilize this option as a method to reduce the testing time associated with conducting multiple runs required under a full source test. Within 30 days of receiving the results of the emissions screen test, subparagraph (k)(3)(C) requires the owner or operator to submit the results to the Executive Officer. Under subparagraph (k)(3)(D), the owner or operator will be required to conduct a source test using an approved method within 60 days of conducting an emission screening test that fails the capture efficiency test(s) specified in the source test protocol, exceeds an emission limit specified in the SCAQMD Permit to Operate, or exceeds an emission limit in subdivision (h).

Source Test Protocol (k)(4)

Paragraph (k)(4) establishes requirements for information required for source test protocols and provisions for when a previously approved source test protocol is used for subsequent source tests.

Emission Points Test Requirements (k)(5)

Paragraph (k)(5) establishes requirements for testing emission points unless a waiver is granted by U.S. EPA or the Executive Officer. There were no changes to this provision.

Capture Efficiency (k)(6)

Paragraph (k)(6) establishes the requirements for capture efficiency and ~~adding~~ adds more specificity: each add-on pollution control device must meet the design and ventilation velocities specified in *A Manual of Recommended Practice for Design* authored by the American Conference of Governmental Industrial Hygienists or alternative design criteria and ventilation velocities approved by the Executive Officer.

Smoke Test (k)(7)

Paragraph (k)(7) reference the methods that are required to be used for conducting a smoke test for add-on air pollution control devices (Appendix 5) and add-on non-ventilated air pollution control devices (Appendix 8).

Certification of Wetting Agent Chemical Fume Suppressant – Subdivision (l)

PAR 1469 paragraphs (l)(1), (l)(2), and (l)(3) modifies the existing requirements by prohibiting the addition of PFOS-based chemical fume suppressants and lowering the minimum surface tension of the tank to 40 dynes/cm, as measured by the stalagmometer, or below 33 dynes/cm, as measured by a tensiometer. This modification is made to be consistent with the federal NESHAP

for Chromium Electroplating which bans the use of PFOS in chemical fume suppressants. The certification list will be updated periodically based on the certification process conducted by SCAQMD and CARB. Paragraph (l)(3) requires that the owner or operator shall use certified chemical fume suppressant in accordance with the certification and manufacturer's specifications to ensure the chemical fume suppressant is optimized to reduce hexavalent chromium emissions and no unintended issues are occurring such as excessive foaming.

Recertification Process for Wetting Agent Chemical Fume Suppressants (l)(4)

During the rulemaking for PAR 1469 information became publicly available that the reformulated non-PFOS chemical fume suppressants contain similar long-chain chemicals as PFOS such as Per- and Polyfluoroakyl (PFAS) substances and Perfluorooctanoic acid (PFOA). There is limited information on the health impacts of the non-PFOS chemical fume suppressants. Emissions tests have been conducted that show that non-PFOS chemical fume suppressants can significantly reduce hexavalent chromium emissions and can meet the required emission limit of 0.01 mg/amp-hour. However, there is currently no emissions data to understand the amount of non-PFOS chemical fume suppressant emissions that are released during plating and anodizing operations. The SCAQMD staff will be conducting emissions tests to better understand the amount of non-PFOS chemical fume suppressant emissions that are released during plating and anodizing operations. The new certification process will consider toxicity reviews of compounds in the chemical fume suppressant, emissions testing for chemical fume suppressant emissions, surface tension, emissions testing for hexavalent chromium emissions, and additional data and information to evaluate the chemical fume suppressant.

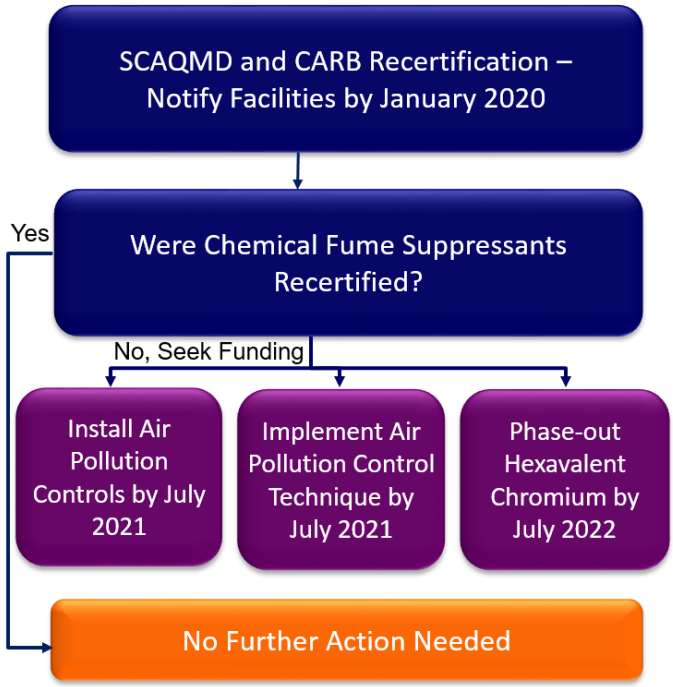
Paragraph (l)(4) of PAR 1469 adds a new requirement that no later than January 1, 2020, the Executive Officer shall notify owner or operators of the availability of a chemical fume suppressant and the certification status of any potential wetting agent chemical fume suppressant going through the certification process conducted by SCAQMD and CARB.

~~Beginning~~ Paragraph (l)(5) requires that if a wetting agent chemical fume suppressant will not be available by July 1, 2021, the owners or operators of a facility shall only add a chemical fume suppressant to a chromium electroplating or chromic acid anodizing tank based on the information in the notice specified in paragraph (l)(4). ~~Tier III Hexavalent Chromium Tank that meets the requirement of (l)(4) based on a certification process conducted by SCAQMD and CARB~~. The date of July 1, 2021 was chosen to allow sufficient time for facilities to implement alternatives, manufacturers to potentially reformulate, and SCAQMD staff to certify the chemical fume suppressant.

If the ~~notification~~ notice indicates that a chemical fume suppressant that meets the certification requirements will not be available by July 1, 2021, the owner or operator shall ~~implement an air pollution control technique to~~ meet the emission limits specified in paragraph (h)(2) no later than July 1, 2021 or ~~use an~~ implement an alternative to a wetting agent chemical fume suppressant that meets the requirements to (l)(7). If an owner or operator of a facility elects to meet the requirements of paragraph (l)(5) by implementing an alternative to a wetting agent chemical fume suppressant the owner or operator would be required to submit a permit application for the chromium electroplating or chromic acid anodizing tank(s) that includes the alternative and any conditions specified in the approval of the alternative in paragraph (l)(8).

Further, an owner or operator of a facility may elect to meet the requirements of paragraph (l)(5) by phasing-out the use of hexavalent chromium in a chromium electroplating or chromic acid anodizing tank that uses a wetting agent chemical fume suppressant. If the owner or operator of a facility elects to phase out the use of hexavalent chromium the phase-out shall occur on or before July 1, 2022. The owner or operator of ~~a~~ the facility ~~may~~shall submit a written commitment to the Executive Officer no later than January 1, 2021 that states the facility shall phase-out the use of hexavalent chromium in the electroplating or chromic acid anodizing tank that is using a chemical fume suppressant by July 1, 2022. This commitment shall be signed by the owner or operator of the facility. ~~The owner or operator may continue to use a chemical fume suppressant certified pursuant to paragraph (l)(1) until July 1, 2022.~~ No later than July 1, 2022 the owner or operator would be required to cease operating and surrender SCAQMD permits to operate the chromium electroplating or chromic acid anodizing tank(s) that use(s) a wetting agent chemical fume suppressant. Figure 2-7 summarizes the re-certification timeline.

Figure 2-7: Revised Certification Timeline



Paragraph (l)(8) of PAR 1469 adds a new requirement that in the event the Executive Officer notifies facilities by January 1, 2020 that no wetting agent chemical fume suppressants will be available by July 1, 2021, the Executive Officer may identify one or more alternatives to a wetting agent chemical fume suppressant that ~~are certified to~~ meet the 0.01 milligrams per ampere-hour (mg/ampere-hour) limit. During the previous rule development of Rule 1469, wetting agent chemical fume suppressants were identified as an effective and low cost air pollution control technique to reduce hexavalent chromium emissions for facilities permitted less than or equal to 50,000 ampere-hours per year. The alternative to a wetting agent chemical fume suppressant will identify air pollution control technique(s) that must be used in combination to meet an equivalent emission rate of 0.01 mg/ampere-hour.

For example, the alternative to a wetting agent chemical fume suppressant may specify a combination of chemical and mechanical fume suppressants, or some combination of in-tank controls that will be certified to control emissions to a level below 0.01 mg/ampere-hour. The certification process will include source tests by SCAQMD ~~similar to certification of chemical fume suppressants,~~ and no initial or recurring source testing will be required for individual facilities that are eligible to use this certified alternative. If the owner or operator used the SCAQMD ~~-~~approved alternative to the chemical fume suppressants, the owner or operator would be required to accept applicable permit conditions. The SCAQMD staff will work with CARB regarding approving an alternative to chemical fume suppressants.

The alternative to a wetting agent shall:

- Meet an emission limit that is ~~less than or equal to~~equally effective as the emission limit required for a wetting agent chemical fume suppressant;
- Be approved by the Executive Officer in consultation with CARB to meet the emission limit requirement; and
- Be used by the owner or operator in accordance with the approval

Under paragraph (h)(2), Table 1, an existing facility is allowed to meet a hexavalent chromium emission limit of up to 0.01 mg/ampere-hour, provided the maximum permitted facility-wide ampere-hour level does not exceed 50,000 ampere-hours per year (for facilities located more than or equal to 330 feet from a sensitive receptor) and 20,000 ampere-hour per year (for facilities located less than 330 feet from a sensitive receptor). Staff has conducted modeling that demonstrates that for a facility permitted at 50,000 ampere-hours/yr, with emissions of hexavalent chromium at 0.01 mg/ampere-hour, the maximum individual cancer risk (MICR) at 25 meters will not exceed 10-in-a-million ($10X10^{-6}$). This is a conservative analysis since facilities permitted at 50,000 ampere-hours/yr would have to be located at least ~~100 meters~~328 feet away and the emissions from facilities permitted at 20,000 ampere-hours/yr might be located closer but would have less emissions.

The proposed approach allowed under subparagraph (l)(8) is health protective and provides a lower cost option for smaller use facilities. The owner or operator can still elect not to use the approved alternative approach and can install an add-on air pollution control device that meets an emission limit of 0.0015 mg/ampere-hour. This approach will allow existing facilities that currently rely on certified chemical fume suppressants to limit their compliance costs in the event chemical fume suppressants are not certified~~,~~. This approach will~~including~~ reduce~~d~~ capital costs as well as ~~no~~ eliminate cost for initial or recurring source tests.

~~Paragraph (l)(9) requires the owner or operator of facility that elects to use an alternative to a wetting agent chemical fume suppressant to submit a permit application that includes the alternative and any conditions specified in the certification. The required conditions may include parameter monitoring, recordkeeping, or other verification to maintain a 0.01 mg/ampere-hour emission limit, which would be dependent on the air pollution control technique.~~

The owner or operator that fails to phase-out the use of hexavalent chromium by July 1, 2022, will be required to cease operation of the electroplating or chromic anodizing tank that contains hexavalent chromium until the facility can meet the specified emission limits.

Parameter Monitoring – Subdivision (m)

PAR 1469 modifies the section to require revised and additional parameter monitoring requirements for add-on air pollution control devices and add-on non-ventilated air pollution control devices.

Subparagraph (m)(1)(A) establishes requirements to continuously monitor the operation of the add-on air pollution control device. Specifics regarding installation, maintenance, and labeling are specified in Table 4 of PAR 1469. Requirements for maintaining the mechanical gauges are specified in Appendix 4 of PAR 1469.

Figure 2-8

Table 4:
Pressure and Air Flow Measurement Parameters

Permitted Air Pollution Control Technique	Location	Parameter Monitored	Units	Monitoring Start Date
Push-Pull Systems	Push Manifold	Static Pressure	Inches of water	60 Days After Completion of Initial Source Test or within [60 Days of Date of Rule Adoption]
All	Collection Manifold or Any Location within the System Using a Flow Meter	Static Pressure or Volumetric Flow Rate	Inches of water or Actual Cubic Feet per Minute	60 Days After Completion of Initial Source Test or within [60 Days of Date of Rule Adoption]
Existing on or Before [Date of Rule Adoption]	Across Each Stage of the Control Device	Differential Pressure	Inches of water	[Date of Rule Adoption]
Installed after [Date of Rule Adoption]	Across Each Stage of the Control Device	Differential Pressure	Inches of water	60 Days After Completion of Initial Source Test

As required in Table 4 of PAR 1469, the owner or operator using an add-on air pollution control device shall demonstrate that emissions are captured by measuring collection slot velocity and the push air manifold pressure. The demonstration shall be made during any source test. Beginning 60 days after the completion of the initial source test of a Tier II or Tier III Hexavalent Chromium tank, the owner or operator shall conduct additional parameter monitoring at least once every 180

days. An adequate collection slot velocity is required to ensure the collection of hexavalent chromium emissions is at the level measured during the source test.

Table 5 of PAR 1469: Add-on Air Pollution Control Device Parameter Monitoring establishes the collection slot velocities and push air manifold pressure conditions that must be met. There are three categories: Acceptable Measurement, Repairable Measurement, and Failing Measurement. Since the collection slot velocity has two options, a measurement can be in more than one category. In this situation, the more favorable measurement would be used to determine the required action.

For example, if a collection slot velocity was measured at 1900 fpm (Repairable Measurement), which was equivalent to be 75% of the most recent passing source test (Failing Measurement), the measurement would necessitate the required action for a Repairable Measurement.

Figure 2-9
Table 5: Add-on Air Pollution Control Device Parameter Monitoring

	Collection Slot(s) Velocity[1]	Push Air Manifold Pressure (for push-pull systems only)	Required Action
Row 1: Acceptable Measurement	> 95% of the most recent passing source test or emission screening; or ≥ 2,000 fpm	95-105% compared to the most recent passing source test or emission screening	None
Row 2: Repairable Measurement	90-95% of the most recent passing source test or emission screening test, or < 2,000 fpm and > 1,800 fpm	90-95% or 105-110% of the most recent passing source test or emission screening test	Repair or replace, and re-measure within 3 calendar days of measurement
Row 3: Failing Measurement	< 90% of the most recent passing source test or emission screening test, or <1,800 fpm	> 110% or < 90% of the most recent passing source test or emission screening test	Immediately shut down any tanks controlled by the add-on air pollution control device that had a failing measurement

1 If the measured slot velocity occurs in multiple rows, the owner or operator shall implement the required action in the lower numbered row. For example the owner or operator would implement the required action in Row 2, if the measured slot velocity occurs in Rows 2 and 3.

A deficient measurement would indicate that the hexavalent chromium emissions are not being collected and being controlled by the add-on air pollution control device. If the measurement of a collection slot velocity is a "repairable measurement" of 90-95% of the most recent passing source test or emissions screening test or less than 2,000 feet per minute (fpm) and greater than 1,800 fpm, the owner or operator shall repair or replace and re-measure the collection slot velocity within 3 calendar days of the measurement. The tank controlled by the add-on air pollution control device may continue to operate with the add-on air pollution control device in operation. If the owner or operator fails to demonstrate that the collection slot velocity is an "acceptable measurement" upon re-measurement, greater than 95% of the most recent source test or emission screening or greater than 2,000 fpm, the owner or operator shall shut-down any tanks associated with the add-on air pollution control devices associated with the collection slot.

For tanks with a push-pull collection system, the push air may be monitored by measuring either the push air velocity or the push air pressure. Monitoring of push air velocity may be measured with an anemometer; however, push air pressure may be measured continuously with a pressure gauge installed in the push air manifold. Although the 29th Edition of *Industrial Ventilation Manual*, did not include a recommended minimum nozzle manifold pressure (P_m, "w.g.") in Table 13-72-1 "Push Nozzle Design Data," it has a recommended flow rate and velocity based on tank dimensions and push manifold design. The previous 28th Edition of *Industrial Ventilation Manual* included the recommended pressure. The minimum pressure may still be calculated using the recommended jet nozzle velocity (V_o) using equation 13.72.7 in the 28th Edition of the *Industrial Ventilation Manual*:

$$Pm = 1.5\ (\frac{V_o}{4005})^2$$

The values of Vo have remained the same in the 28th and 29th Editions of *Industrial Ventilation Manual*.

If the measurement of the collection slot velocity is in the "failing measurement" range, the owner or operator shall immediately shut down any tanks associated with any air add-on air pollution control devices associated with the collection slot. This prevents the owner or operator from operating a tank that may be emitting hexavalent chromium since the hexavalent chromium emissions are not being sufficiently collected. The owner or operator shall demonstrate that the collection slot velocity and/or push air manifold pressure is in the "acceptable measurement" by re-measuring the collection slot velocity and/or push air manifold pressure under typical operating conditions of the tank, with the exception of the suspension of electrolytic operations, prior to resuming electrolytic operations.

Smoke Test Requirements (m)(1)(E) and (m)(1)(F)

PAR 1469 subparagraph (m)(1)(E) clarifies the requirements of the smoke test by stating that both add-on air pollution control devices and add-on non-ventilated air pollution control devices are to be tested. PAR 1469 maintains the frequency for conducting smoke tests of once every 180 days. Add-on air pollution control devices have emission collection systems and the smoke tests demonstrates through a qualitative evaluation that emissions coming from the tank are being collected. Add-on non-ventilated air pollution control devices typically do not have an emissions collection system and a smoke test would demonstrate the containment of hexavalent chromium emissions by devices such as tank covers and merlin hoods.

Subparagraph (m)(1)(F) establishes what is an acceptable smoke test which is referenced in Appendix 5 and 8 of PAR 1469 for add-on pollution control devices and add-on non-ventilated pollution control devices, respectively. If an acceptable smoke test is not conducted, the owner or operator is required to immediately shutdown the Tier II and Tier III Hexavalent Chromium Tanks associated with the pollution control equipment until an acceptable smoke test is conducted.

HEPA Filters (m)(1)(G)

Subparagraph (m)(1)(G) establishes parameter monitoring for HEPA filters. Beginning 60 days after the completion of the initial source test, the owner or operator of an add-on air pollution control device equipped with HEPA filters shall ensure that the monitoring device for pressure drop:

- Is equipped with ports to allow for periodic calibration in accordance with manufacturer's specifications;
- Is calibrated according to manufacturer's specification at least once every calendar year; and
- Is maintained in accordance with the manufacturer's specification.

Wetting Agent Chemical Fume Suppressants (Excluding Decorative Chromium Electroplating Tanks Using a Trivalent Chromium Bath) (m)(2)

The requirement to measure surface tension weekly after 20 daily measurements with no violation has been modified to once every third operating day, but not less than once per week. The required non-PFOS chemical fume suppressants evaporate and degrade faster than a PFOS-containing products. SCAQMD staff is concerned that this faster degradation can result in faster increases to surface tension values. More frequent periodic monitoring of tank bath surface tensions will ensure that an adequate amount of chemical fume suppressants are being used to comply with the surface tension limits specified in the rule and permit conditions. Subparagraph (m)(2)(C) requires daily surface tension measurements for 20 consecutive operating days if the surface tension is not maintained. The owner or operator can resume monitoring every third operating after successfully measuring the surface tension daily for 20 consecutive operating days.

Foam Blanket, Polyballs or Similar Mechanical Fume Suppressants (m)(3) and (m)(4)

The requirement to visually inspect each operating day for coverage comparable to the coverage during the source test has been modified to include Tier II and Tier III Hexavalent Chromium Tanks.

Inspection, Operation and Maintenance Requirements (n)

The requirements for inspection and maintenance and the operation and maintenance plan apply to add-on air pollution control devices or alternative add-on air pollution control devices. The existing table previously found in Table 4 has been moved to Appendix 4: Table 4-1. Tier II Hexavalent Chromium Tanks not controlled by an add-on air pollution control device shall comply with the applicable inspection and maintenance requirements in Appendix 4: Table 4-4. The existing requirements for facilities using chemical fume suppressants or mechanical fume suppressants has also been moved to Appendix 4, Table 4-4. PAR 1469 also combines the existing requirements for the operation and maintenance plan into this subdivision.

Also, Tier II hexavalent chromium tanks not controlled by an add-on air pollution control device and Tier I, Tier II, and Tier III hexavalent chromium tanks are required to comply with new inspection and maintenance requirements 90 days after the date of rule adoption.

Beginning 90 days after the date of rule adoption, paragraph (n)(3) and paragraph (n)(4) requires the owner or operator of a facility to comply with the additional inspection and maintenance requirements in Appendix 4.

Also, beginning 90 days after date of the rule adoption, paragraph (n)(9) requires the owner or operator to revise the facility's operation and maintenance plan to incorporate of the inspection and maintenance requirements for a device or monitoring equipment that is identified in Table 4-2 and Table 4-3 of Appendix 4.

Paragraph (n)(10) requires the owner or operator to photograph the ampere-hour reading of the ampere-hour being replaced and the new ampere-hour meter immediately after installation.

Recordkeeping and Reporting – Subdivisions (o) and (p)

Paragraph (o)(1) clarifies that the inspection records apply to facilities using either an add-on air pollution control devices or an alternative add-on air pollution control devices. Additional recordkeeping requirements have been included to reflect the proposed provisions for building enclosures, housekeeping, best management practices, periodic source tests, capture efficiency tests, emission screening, and parameter monitoring. Inspection and maintenance requirements have been moved to Appendix 4.

As part of the ongoing compliance status and emission reports (specified in Appendix 3), facilities should report the results of add-on air pollution ventilation measures conducted during the most recent source test. Information would include the velocity of each collection slot and push air manifold. Facilities must also report any pollution prevention measures that have been implemented that eliminate or reduce the use of hexavalent chromium in the chromium electroplating or chromic acid anodizing process. Also required in the compliance status reports are calculations for building enclosure envelopes, including locations and dimensions of openings counted towards the 3.5% allowance.

Paragraph (p)(4) revises "Reports of Breakdowns" to "Notification of Incident". As background, SCAQMD Rule 430 provides breakdown coverage, where the facility may not be in violation of a permit condition or rule requirement, if the Executive Officer determines that it was a valid breakdown based on evidence provided by the owner or operator. However, the existing reference to Rule 430 in Rule 1469 is conflicting as Rule 430 does not apply to any Regulation XIV rules.

As a result, PAR 1469 replaces breakdown provisions with "Notification of Incident" which incorporates similar notification language used in Rule 430 by requiring the owner or operator to notify SCAQMD via 1-800-CUT-SMOG within four hours of the incident or within four hour of the time the owner or operator knew or reasonably should have known of the following:

- Any failed smoke test
- Any failed source test
- An exceedance of a permitted ampere-hour limit, or
- A malfunction of a non-resettable ampere-hour meter.

A supplemental report is required to be submitted no later than 30 calendar days from the date of incident.

New and Modified Sources (removed)

PAR 1469 removes previous subdivision (l) relating to New and Modified Sources as facilities are required to submit a permit prior to altering or installing equipment under existing SCAQMD rules for permitting (Regulation II) and toxic new source review (Rule 1401).

Exemptions – Subdivision (r)

Due to the new requirements for Tier I and II Hexavalent Chromium Tanks, PAR 1469 removes the exemption for process tanks associated with a chromium electroplating or chromic acid anodizing process in which neither chromium electroplating nor chromic acid anodizing is taking

place. One of the objectives of PAR 1469 is to control emissions from tanks that were identified as sources of hexavalent chromium where neither electroplating nor chromic acid anodizing is taking place.
PAR 1469 also removes the exemption that would suspend requirements during periods of equipment breakdown. As discussed earlier, references to Rule 430 have been removed due to the lack of applicability to Regulations XIV.

PAR 1469 adds an exemption from the requirements of subparagraphs (f)(6), (g)(5), and (g)(6) as long as the buffing, grinding or polishing operations are conducted under a continuous flood of metal removal fluid. The application of metal removal fluid has been demonstrated to reduce emissions.

Title V Permit Requirements (removed)

PAR 1469 removes the subdivision (o) as SCAQMD Rule 3002 already requires a facility to obtain a Title V permit and comply with the conditions. Therefore, this subdivision is unnecessary and duplicative.

Chromium Electroplating or Chromic Acid Anodizing Kits Requirements (removed)

PAR 1469 removes the requirements for chromium electroplating or chromic acid anodizing kits as this existing language was from the state's Chrome Plating ATCM regarding prohibitions on chromium electroplating and chromic acid anodizing kits. This language has been removed as Rule 1469 facilities are still subject to those requirements under state law.

Conditional Requirements for Permanent Total Enclosure – Subdivision (t)

Paragraph (t)(1) requires the owner or operator of a facility to install a permanent total enclosure for a Tier III Hexavalent Chromium Tank ~~with a combined area of all enclosure opening~~ that does not exceed 3.5% for all enclosure openings as specified in paragraph (e)(1) ~~if~~for a Tier III hexavalent chromium tank:

- That results in ~~M~~more than one non-passing source test as required in paragraph (k)(1) occurring~~ed~~ within a consecutive 48-month period; or
- Not immediately shut down pursuant to clause (m)(1)(C)(iii) or subparagraph (m)(1)(D) or subparagraph (m)(1)(F) more than once within a consecutive 48-month period and ~~T~~the facility is greater than 1,000 feet from a sensitive receptor~~, and the owner or operator failed to cease operating a tank that is controlled by an add-on air pollution control device or add-on non-ventilated air pollution control device more than once within a consecutive 48-month period due to a failed measurement of the collection system or a failed smoke test as required in paragraph (k)(6)~~; or
- Not immediately shut down pursuant to clause (m)(1)(C)(iii) or subparagraph (m)(1)(D) or subparagraph (m)(1)(F) once and ~~T~~the facility is 1,000 feet or less from a sensitive receptor~~, and the owner or operator failed to cease operating a tank controlled by an add-on air pollution control device or add-on non-ventilated air pollution control device once as required in paragraph (k)(6)~~.

The distance of a sensitive receptor or a school to the facility shall be measured from the property line of the sensitive receptor or school to the nearest property line of the facility.

Paragraph (t)(2) allows the owner or operator to contest the requirement in paragraph (t)(1) to install a permanent total enclosure within 30 days of receiving notification from the Executive Officer that the requirement had been triggered. A written report contesting the requirement shall include evidence that installation of the permanent total enclosure is not warranted based on the following criteria:

- The ~~-~~incidents of non-compliances did not occur; ~~and~~or
- The owner or operator resolved the specified incidents of non-compliances specified in paragraph (t)(1) in a timely manner; ~~and~~or
- The owner or operator implemented specific measures minimize the hexavalent chromium emissions.

The Executive Officer will use the information in the written report to determine whether the permanent total enclosure is required and will notify the owner or operator within 90 days of receiving the written report.

Paragraph (t)(4) requires permanent total enclosures to vent to an add-on air pollution control device that is fitted with HEPA filters, or other filter media that is rated by the manufacturer to be equally or more effective, and designed in a manner that does not conflict with requirements or guidelines set forth by OSHA or CAL-OSHA regarding worker safety, or the National Fire Protection Association regarding safety.

Paragraph (t)(5) requires permit applications for permanent total enclosures ~~shall~~ to be submitted to the Executive Officer as follows:

- No later than 180 days after notification by the Executive Officer if the property line of the facility is within 500 feet of the property line of any sensitive receptor~~, school, or early education center~~.
- No later than 270 days after notification by the Executive Officer for all other facilities.

Installation of the permanent total enclosure shall be completed no later than 12 months after the Permit to Construct is issued by the Executive Officer.

Hexavalent Chromium Phase-out – Subdivision (u)

Paragraph (u)(1) provides that owners and operators of facilities with an existing Tier III Tank that plan to eliminate or reduce hexavalent chromium concentrations within the tank shall not be subject to the requirements of paragraph (h)(4) to vent the tank to an add-on air pollution control device. In order to qualify for this exemption, facilities must submit a plan to the Executive Officer for approval that includes:

- The method by which the hexavalent chromium concentration will be eliminated or reduced and expected completion date; and
- A list of milestones necessary to occur, including their projected dates; and
- A list of all control measures that will be implemented until the concentration is eliminated or reduced.

Paragraph (u)(2) requires the Hexavalent Chromium Phase-Out Plan to be subject to the fees specified in Rule 306.

Paragraph (u)(4) requires the owner or operator to submit a progress report to the Executive Officer by the first day of each calendar quarter indicating the performance to meet the increments of progress for the previous quarter or submit according to an alternative schedule as specified in the approved plan.

Paragraph (u)(5) requires owners or operators to submit complete SCAQMD permit applications to comply with subdivision (h) if:

- The owner or operator does not eliminate or reduce hexavalent chromium by the final completion date in the Hexavalent Chromium Phase-Out Plan;
- The Executive Officer denies a resubmitted Hexavalent Chromium Phase-out Plan; or

The owner or operator fails to resubmit the Hexavalent Chromium Phase-Out Plan.

- Paragraph (u)(6) requires the owner or operator to install the add-on air pollution control device no later than 180 days after a Permit to Construct is issued.

Time Extensions – Subdivision (v)

Paragraph (v)(1) allows an owner or operator of a facility to submit a request to the Executive Officer for a one-time extension for up to 12 months to:

- Complete installation of an add-on air pollution control device, implement an approved alternative compliance method, or implement an approved Hexavalent Chromium Phase-Out Plan to meet the requirements under subparagraph (h)(4)(C); or
- Meet the hexavalent chromium emission limit, phase-out the use of hexavalent chromium, or implement an alternative to a wetting agent chemical fume suppressant required under paragraph (l)(5).

Paragraph (v)(2) requires an owner or operator of a facility that requests a time extension under paragraph (v)(1) to submit the request no later than 90 days before the compliance deadline specified in subparagraph (h)(4)(C) or paragraph (l)(5) and provide:

- The facility name, SCAQMD facility identification number, and the name and phone number of a contact person;
- A description of the chromium electroplating or chromic acid anodizing tank and the SCAQMD Permit to Operate and tank number;
- A description of the emission reduction approach that is being implemented;
- The specific provision under subparagraph (h)(4)(C) or paragraph (l)(5) for which a compliance extension is being requested;
- The reason(s) a time extension is needed;
- Progress in meeting the provisions in subparagraph (h)(4)(C) or paragraph (l)(5) including but not limited to date permit application was submitted to the SCAQMD, date permit to construct was approved, purchase order of equipment, date of service of contractors or consultants to install equipment; and
- The length of time requested, up to 12 months.

Paragraph (v)(3) sets-forth criteria for the Executive Officer to review and approve the time extension requested by an owner or operator. Specifically, the owner or operator would be required to demonstrate that there are specific circumstances beyond the control of the owner or operator that necessitate additional time to meet the compliance dates specified under subparagraph (h)(4)(C) and paragraph (l)(5). Additionally, the demonstration would be required

to be substantiated with information that includes, but is not limited to detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility.

Appendices

All additions and amendments to the following appendices have been made in order to provide clarity and information on PAR 1469.

Appendix 1 – Content of Source Test Reports

- Items 9-11 have been added to require applicable industrial ventilation limits; collection slot velocities (if applicable); and measured static, differential, or volumetric flow rate at the push manifold; across each stage of the control device; and exhaust stack (if applicable).

Appendix 4 – Notification of Construction Reports

- Removed ~~due to~~because information required for future construction of equipment at new or existing facilities is submitted with a Permit to Construction.

Appendix 4 – Summary of Inspection Requirements

- Table 4-1: Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) previously in Table 4 has been added.
- Table 4-2: Additional Inspection and Maintenance Requirements for Tier I, II, and III Hexavalent Chromium Tank(s) has been added.
- Table 4-3: Summary of Inspection and Maintenance Requirements for Sources Not Using Add-on Air Pollution Control Device to Control Hexavalent Chromium Tank(s) has been added.
- Table 4-4: Summary of Inspection and Maintenance Requirements for Sources Using Chemical or Mechanical Fume Suppressants previously in Table 5 has been added.

Appendix 5 – Smoke Test for Add-on Non-Ventilated Air Pollution Control Device

Appendix 7 – Distance Adjusted Ampere-Hour and Annual Emissions Limits for Facilities Located More Than 25 Meters from a Residence or Sensitive Receptor

- Removed as the tables included in the appendix were for provisions in the Rule 1469 that were removed

Appendix 7 – Information Demonstrating an Alternative Method(s) of Compliance Pursuant to Subdivision (i)

- Item 5 has been added to require an owner or operator to demonstrate that the facility is at least 25 meters from a sensitive receptor. Facilities that are within 25 meters from sensitive receptors are ineligible to utilize an alternative method and are required to use an add-on air pollution control device.

Appendix 8 – Smoke Test to Demonstrate Capture Efficiency for an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (k)(6)

- Item 2.1 has removed a reference to Model #15 049 Tel-Tru T-T Smoke Sticks from E. Vernon Hill Incorporated

CHAPTER 3: IMPACT ASSESSMENT

AFFECTED FACILITIES

Based on site visits conducted by SCAQMD staff, SCAQMD permit database searches, internet searches, and third-party sources, there are a total of 115 facilities that either conduct chromium electroplating or chromic acid anodizing. SCAQMD staff conducted site visits at 47 facilities, each with a variety of air pollution controls and operations.

EMISSION IMPACTS

PAR 1469 affects 115 facilities conducting electroplating or anodizing that use hexavalent chromium or trivalent chromium. Implementation of PAR 1469 will reduce both point source (requiring controls on previously uncontrolled tanks) and fugitive emissions (improving housekeeping and requiring operations to be conducted in a building). Quantifying the point source emissions reductions is difficult as there is large variance in hexavalent chromium emissions between the tanks and there are a limited number of source tests. The emissions of other air toxics generated the metal finishing operations may be reduced as well.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to CEQA and SCAQMD Rule 110, the SCAQMD, as lead agency for the proposed project, has prepared a Draft Environmental Assessment (EA) for PAR 1469. The environmental analysis in the Draft EA concluded that PAR 1469 would not generate any significant adverse environmental impacts, and therefore no alternatives or mitigation measures are required. The Draft EA was released for a 32-day public review and comment review period from February 16, 2018 to March 20, 2018. Two comment letters were received from the public relative to the Draft EA, and responses to the comments will be prepared and included in the Final EA. The SCAQMD Governing Board must review the adequacy of the Final EA, including responses to comments, prior to the certification of the Final EA and adoption of the proposed amendments to Rule 1469.

SOCIOECONOMIC IMPACT ASSESSMENT

A Draft Socioeconomic Impact Assessment was prepared and released on July 13, 2018 and a Revised Draft Socioeconomic Impact was prepared and released on August 8, 2018 for public review and comment prior to the SCAQMD Governing Board Hearing on PAR 1469, which is anticipated to be heard on September 7, 2018.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

California H&SC Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report.

Necessity

PAR 1469 is needed to further reduce hexavalent chromium emissions from chromium electroplating ~~or~~ and chromic acid anodizing operations. PAR 1469 proposes new requirements for hexavalent chromium ~~containing~~ tanks, such as dichromate seal tanks, that are currently not regulated under Rule 1469. PAR 1469 requires air pollution controls for hexavalent chromium ~~containing~~ tanks that have the potential to emit hexavalent chromium. In addition, PAR 1469 includes periodic source testing, parameter monitoring of control equipment, requirements for building enclosures, and additional housekeeping and best management practices for all hexavalent chromium ~~containing~~ tanks. Proposed requirements include triggered provisions for permanent total enclosures vented to air pollution controls based on non-compliance with specific source testing or monitoring requirements. PAR 1469 also revises existing requirements to reduce surface tension limits and prohibit the use of chemical fume suppressants that contain PFOS in order to be consistent with the Chrome Plating NESHAP.

Authority

The SCAQMD Governing Board has authority to adopt PAR 1469 pursuant to the California Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40440, 40441, 40702, 41508, and 41700.

Clarity

PAR 1469 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

PAR 1469 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions or state or federal regulations.

Non-Duplication

PAR 1469 will not impose the same requirements as an existing state or federal regulations. PAR 1469 implements the state ATCM and U.S. EPA's NESHAP for chrome plating and anodizing facilities. PAR 1469 incorporates provisions from the state ATCM and NESHAP as well as has additional provisions that are more stringent that the NESHAP and ATCM. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD.

Reference

By adopting PAR 1469, the SCAQMD Governing Board will be implementing, interpreting or making specific the provisions of the California H&SC Section 41700 (nuisance), and Federal Clean Air Act Section 112 (Hazardous Air Pollutants) and Section 116 (Retention of State authority), California Code of Regulations Sections 93102-93102.16 (Airborne Toxic Control Measure for Chromium Plating and Chromic Acid Anodizing Facilities), and 40 CFR Part 63, Subpart N (National Emission Standards for Hazardous Air Pollutant Emissions: Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks).

COMPARATIVE ANALYSIS

H&SC Section 40727.2 requires a comparative analysis of the proposed rule requirements with those of any Federal, State, or SCAQMD rules and regulations applicable to the same equipment or source category.

The following regulations are compared to PAR 1469 in this analysis:

- Federal – National Emission Standards for Hazardous Air Pollutant Emissions: Hard and Decorative Chromium Electroplating and Chromium Anodizing (NESHAP)
- State – Airborne Control Toxic Measures for Hexavalent Chromium Emissions from Chromium Plating and Chromic Acid Anodizing Facilities (ATCM)

Rule Element	PAR 1469	ATCM	NESHAP
General Requirements	• Require operation of a Tier I, Tier II, or Tier III Hexavalent Chromium tank to be in a building enclosure	None specified	None specified
Building Enclosure Requirements for Tier II and Tier III Tanks	Beginning [180 days after Date of Rule Adoption], the owner or operator of a facility shall only operate Tier II and Tier III Hexavalent Chromium and associated process tanks within a building enclosure that meets the following requirements: • Combined area of all enclosure openings shall not exceed 3.5% • Close or limit openings that are on opposite ends of the building • Close any ~~building~~ enclosure opening that directly faces and opens towards up to two ~~a~~ sensitive receptors • Close all enclosure openings in the roof that are located within 15 feet of Tier II and Tier III Hexavalent	None specified	None specified

	Chromium Tanks except for openings that: ○ Allow access for equipment or parts; or ○ Provide intake air or circulation air for a building enclosure that does not create air velocities that impact the collection efficiency of a ventilation system for an add-on air pollution control device; or ○ Are ~~equipped~~ with a HEPA filter or other air pollution control device • Repair any breach within 72 hours of discovery • The ~~O~~owner or operator shall notify the Executive Officer of any conflicting requirements set by any other government agency and propose alternative compliance measure(s) to minimize the release of fugitive emissions		
Housekeeping Requirements	• Clean, using an approved method, surfaces within the enclosed storage area, open floor area, walkways around Tier I, Tier II, or Tier III	• Clean at least once every seven days surfaces within the enclosed storage area, open floor area, walkways around the electroplating or	• At least once every 7 days, surfaces within the enclosed storage area, open floor area, walkways around affected tanks contaminated with

	Hexavalent Chromium Tank(s) or any surface potentially contaminated with hexavalent chromium weekly; • Clean, using an approved method, or contain using a drip tray or other containment device, any liquid or solid material that may contain hexavalent chromium that is spilled immediately and no later than one hour after being spilled. • Containers that contain chromium containing waste material shall be kept closed at all times except when being filled or emptied; • On days when buffing, grinding, or polishing are conducted, the owner or operator shall clean, using an approved cleaning method, floors within 20 feet of a buffing, grinding or polishing workstation • Eliminate all flooring or walkways in the tank process area that is made of fabric such as carpets or rugs where hexavalent chromium containing materials can become trapped. • During the cutting of any roof surface of a	anodizing tank (s), or any surface potentially contaminated with hexavalent chromium, that accumulates or potentially accumulates dust; • Clean or contain spilled liquid or solid material containing hexavalent chromium within one hour to minimize track out. • Store, dispose, recover, or recycle chromium or chromium containing wastes generated from housekeeping activities using practices that do not lead to fugitive dust and in accordance with hazardous waste requirements	hexavalent chromium from an affected chromium electroplating or chromium anodizing tank shall clean the surfaces using one of the following methods; HEPA vacuuming, hand-wiping with a damp cloth, wet mopping, hose down or rinse with potable water, other cleaning method approved by permitting authority or apply a non-toxic dust suppressant • Begin clean up, or otherwise contain all spills within 1 hour of the spill. • All chromium or chromium-containing wastes generated from housekeeping activities shall be stored, disposed, recovered, or recycled so that practices do not lead to fugitive dust and in accordance with hazardous waste requirements

	building enclosure the owner or operator shall perform the following: o Prior to cutting, roof surfaces shall be cleaned by using a HEPA vacuum o All cutting activities shall be conducted in a manner that does not generate fugitive emissions o Notify the SCAQMD at least 48 hours prior to the commencement of any work being performed		
Best Management Practices	• Facilities with automated lines shall have drip trays or other containment equipment between Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) and its adjacent tank • Facilities without automated lines shall handle parts and equipment used to handle such parts, so that liquid containing chromium is not dripped outside the electroplating or anodizing tanks, unless the liquid is captured by a drip tray or other containment device • The owner or operator shall not spray rinse	• Minimize drag-out from hexavalent chromium electroplating and chromic acid anodizing tank(s) by installing drip trays for facilities with automated lines, or by handling electroplated or anodized parts such that chromic acid is not dripped outside of the electroplating tank. • Facilities without automated lines that spray down parts over the electroplating or anodizing tank(s) shall install splash guards • Separate buffing, grinding, or polishing areas within a facility by installing a physical barrier	• Install drip trays that collect and return any bath solution, contain and return to the tank any bath solution, contain and return to the tank any bath solution, or collect and treat in an onsite wastewater treatment plant any bath solution • Each spraying operation for removing excess chromic acid from parts removed from, and occurring over, an affected tank shall install a splash guard to minimize overspray during

	parts or equipment that have chromium-containing liquid unless the parts or equipment are fully lowered inside a tank where the overspray and all liquid is captured inside the tank. Alternatively the owner or operator may: o Install a splash guard at the tank that is free of holes, tears, or openings o For tanks located within a process line, utilizing an overhead crane system, a low pressure spray nozzle and operated in a manner such that water flows off of the part or equipment and into the tank • Maintain clear labeling of each tank within the tank process area with a tank number or other identifier, SCAQMD permit number, bath contents, maximum concentration (ppm) of hexavalent chromium, operating temperature range, any agitation methods used, and designation of whether it is a Tier I, Tier II, or Tier III Tank • Conduct all buffing, grinding, and polishing		spraying operations and to ensure that any hexavalent chromium-laden liquid captured by the splash guard is returned to the affected chromium electroplating or anodizing tank • All buffing, grinding, or polishing operations that are located in the same room as chromium electroplating or chromium anodizing operations shall be separate from any affected electroplating or anodizing operation by installing a physical barrier

	operations within a building enclosure. • Install a barrier to separate the buffing, grinding, or polishing within a facility from the chromium electroplating or chromic acid anodizing operation • Prohibit compressed air cleaning or drying operations within 15 feet of all Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) unless: o A barrier separates those tanks from the compressed air cleaning or drying operations o Compressed air cleaning or drying operations are conducted in a permanent total enclosure		
Add-on Air Pollution Control Devices and Emission Standards: Tier III Tank Requirements	• Owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall collect and vent all hexavalent chromium emissions from each Tier III Hexavalent Chromium Tank, excluding chromium electroplating and chromic acid anodizing tanks that	None specified.	None specified.

	meets the following emission limits: ○ For existing facilities, 0.0015 mg/amp-hr, if any tanks that are vented are electrolytic; or ○ For new facilities, 0.0011 mg/amp-hr, if any tanks that are vented are electrolytic; or ○ 0.20 mg/hr, if all tanks vented to the add-on air pollution control device are not electrolytic and the ventilation system has a maximum exhaust rate of 5,000 cfm or less; or ○ 0.004 mg/hr-ft^2, with the applicable surface area based on the tank surface area of all Tier III Hexavalent Chromium Tank(s) and other tanks required to be controlled by SCAQMD Permit to Operate vented to an add-on air pollution control device, if the ventilation system has a maximum		

	exhaust rate of greater than 5,000 cfm • Add-on air pollution control devices shall be installed by the owner or operator of a facility 12 months ~~year~~ after a Permit to Construct has been issued by the Executive Officer or implement the alternative compliance method to meet the requirements for hexavalent chromium emission limits under subparagraph (h)(4)(A) based on the timeframe specified in the approved alternative compliance method; or no later than two years after approval, the owner or operator of a facility shall implement an approved Hexavalent Chromium Phase-Out Plan pursuant to subdivision (u). • Beginning no later than [30 days after Date of Adoption], until the add-on air pollution control has been installed, cover the tank no later than 30 minutes after ceasing operation of the tank. Tank covers shall be free of holes, tears, and gaps and handled in a manner that does not lead to fugitive emissions.		

	• The owner or operator shall not be subject to the requirement to vent a Tier III Hexavalent Chromium Tank to an add-on air pollution control device if the uncontrolled hexavalent chromium emission rate of the tank is less than 0.2 mg/hr as demonstrated by a source test and it is not a chromium electroplating or chromic acid anodizing tank.		
Add-on Air Pollution Control Devices and Emission Standards: Tier II Tank Requirements	• Beginning no later than [30 days after Date of Adoption], Tier II Tanks must utilize a tank cover, mechanical fume suppressant, or other emission control method approved by the Executive Officer. • Alternatively, the owner or operator of a facility may meet the Tier III Tank emission limit requirements	None	None
Add-on Air Pollution Control Devices and Emission Standards: General	• An ~~O~~owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall operate air pollution control techniques at the applicable minimum hood induced capture velocity.	None	None
Source Test Requirements: Schedule	• Owner or operator shall conduct the initial source test no	• Initial test required to demonstrate compliance with	None specified.

	later than 120 days after approval of the initial source test protocol • A source test conducted after January 1, 2015, may be used to demonstrate compliance with the initial source test. • Subsequent source tests are required to be conducted within 60 months of the most recent successful SCAQMD approved source test for facilities permitted for more than 1,000,000 ampere-hours per year • Subsequent source tests are required to be conducted within 84 months of the most recent successful SCAQMD approved source test for facilities permitted for less than or equal to 1,000,000 ampere-hours • An owner or operator of facility that elects to meet an emission limit specified in paragraph (h)(2) using a certified wetting agent chemical fume suppressant or certified alternative wetting agent chemical fume suppressant shall not be subject to the requirements of	emission rate standards except for chromium electroplating or chromic acid anodizing tanks using wetting agent chemical fume suppressants for sole method of compliance	

	subparagraph (k)(1)(A)		
Source Test Requirements: Emission Screening	• An emission screening of hexavalent chromium for a Tier III Hexavalent Chromium Tank may be alternatively conducted to comply with the requirements for subsequent source tests if the emissions screening test: o Follows a source test protocol previously submitted and approved by the SCAQMD o Consists of one run to evaluate the capture and control of hexavalent chromium emissions o Be representative of operating conditions at the facility • An emissions screening test of hexavalent chromium for a Tier III Hexavalent Chromium Tank may be conducted as an alternative to complying with the requirements for an initial source tests if: o The emissions screening meets the requirements of clauses	None specified.	None specified.

	(k)(3)(A)(i) through (iii); ○ The facility conducted a source test after January 1, 2009 that meets the requirements of clauses (k)(1)(C)(i) through (k)(1)(C)(iii) ○ Submit to the Executive Officer a source test that requires approval to satisfy clause (k)(3)(B)(ii) no later than [30 days after Date of Rule Adoption] • The owner or operator shall submit to SCAQMD the results of the emission screening within 30 days of receiving the results • The owner or operator shall conduct a source test using an approved test method within 60 days of conducting an emission screening that: ○ Fails the capture efficiency test(s) specified in the source test protocol; ○ Exceeds an emission limit specified in the Permit to Operate;		

	○ Exceeds an emission standard		
Source Test Protocol Submittal	• The owner or operator shall submit source test protocols for source tests based on the schedule below for air pollution control techniques existing on or before [Date of Adoption] • Facility Permitted >20,000,000 Amp-hrs ○ Initial source test protocol due no later than [180 Days After Date of Adoption] ○ 180 days prior to due date of subsequent source test • Facility Permitted <20,000,000 and >1,000,000 ○ Initial source test protocol due no later than [365 Days After Date of Adoption] ○ 180 days prior to due date of subsequent source test • For new or modified air pollution control techniques after [Date of Adoption] ○ Initial source test protocol due 60 days after initial start-up ○ 180 days prior to due date of	None specified.	None specified.

	subsequent source test • Most recent SCAQMD approved source test protocol may be used for subsequent source tests if there are no changes since the last successful SCAQMD approved source test		
Capture Efficiency	• The owner or operator of a facility that is required to conduct a source test pursuant to subdivision (k) shall demonstrate that each add on-air pollution control device meets the design criteria and ventilation velocities specified in A Manual of Recommended Practice for Design authored by the American Conference of Governmental Industrial Hygienists or alternative design criteria and ventilation velocities approved by the Executive Officer.	None specified.	None specified.
Smoke Test	• The owner or operator of a facility shall conduct a smoke test for each add-on air pollution control device pursuant to Appendix 5 and each add-on non-ventilated air pollution control device pursuant to Appendix 8. If an acceptable test is not conducted, the owner or operator shall shutdown all Tier II	None Specified	None Specified

	and Tier III Hexavalent Chromium Tanks associated with the add-on air pollution control device or add-on non-ventilated air pollution control device until an acceptable test is conducted.		
Wetting Agent Chemical Fume Suppressants	• The owner or operator shall not add PFOS based fume suppressant to any chromium electroplating or chromic acid anodizing bath. • Surface tension shall be maintained below: o 40 dynes/cm (stalagmometer) o 33 dynes/cm (tensiometer) • Has been certified by the Executive based on a certification process conducted by SCAQMD and CARB	• Certify wetting agent chemical fume suppressants to achieve a surface tension level at which an emission factor of ≤ 0.01 mg/amp-hr is achieved. Wetting agent chemical fume suppressants must additionally meet a surface tension of < 45 dynes/cm (stalagmometer) or < 35 dynes/cm (tensiometer)	• After September 21, 2015, the owner or owner of an affected facility shall not add PFOS–based fume suppressant • If a chemical fume suppressant containing a wetting agent is used, the surface tension of the electroplating or anodizing bath shall not exceed: o 40 dynes/cm (stalagmometer) o 33 dynes/cm (tensiometer)
Wetting Agent Chemical Fume Suppressants: Certification/ Phase Out	• No later than January 1, 2020, the Executive Officer shall notify the owner or operator of the following information: o Availability of a wetting agent chemical fume suppressant that is certified by the Executive Officer o Certification status of any potential wetting agent chemical	None specified.	None specified.

	○ Beginning July 1, 2021, the owner or operator shall only add a certified wetting agent chemical fume suppressant to a electroplating or chromic acid anodizing tank that ~~contains hexavalent chromium~~based on the information in the notice as specified in paragraph (l)(4) and ○ ~~If there will not be a wetting agent certified fume suppressant, t~~The owner or operator shall install and implement an air pollution control technique to meet the emission limits specified in Table 1 – Hexavalent Chromium Emission Limits for Hard Decorative Chromium Electroplaating and Chromic Acid Anodizing Tanks no later than July 1, 2021, or phase-out the use of hexavalent chromium no later than July 1, 2022, or implement an alternative to a wetting agent chemical fume suppressant ○ An owner or operator that elects to phase out		

	hexavalent chromium ~~may~~ shall submit no later than January 1, 2021, a written and signed commitment that the facility will phase out by July 1, 2022, the use of hexavalent chromium in the electroplating or chromic acid anodizing tank that use a wetting agent chemical fume suppressant and cease operating and surrender SCAQMD permits to operates to operate the chromium electroplating or chromic acid anodizing tank(s) no later than July 1, 2022 ~~o The owner or operator may continue to use a wetting agent chemical fume suppressant until July 1, 2022~~ o The alternative to a chemical fume suppressant shall meet an emission limit that is equally effective as the emission limit required for a chemical fume suppressant, be approved by the Executive Officer, and b used in accordance with the approval o Owner or operator that fails to phase out the use of hexavalent chromium by July 1, 2022 will be required to cease operation of		

	the electroplating or chromic acid anodizing until it can meet the emission limits		
Parameter Monitoring: Pressure Air Flow	• The owner or operator shall monitor the operation of the add-on air pollution control device by: ○ Installing and maintaining a device to measure the applicable pressures and air flows specified in Table 4 - Pressure and Air Flow Measurement Parameters ○ Installing each device so that it is accessible and in clear sight of the operation or maintenance personnel; ○ Maintaining all parameters identified in Table 4 - Pressure and Air Flow Measurement Parameters within the range specified in the Facility's SCAQMD Permit to Operate; ○ Labeling each mechanical gauge with the corresponding acceptable operating ranges established during	None specified.	None specified

	the most recent source test and within the range specified in the SCAQMD Permit to Operate; and o Maintaining the mechanical gauges in accordance to the requirements in Appendix 4 • The owner or operator shall measure the velocity of all collection slots and if applicable, the pressure of the push manifold, or alternate location based on the source test every 180 days		
Parameter Monitoring: Pressure and Air Flow	• Monitor the operation of the add-on air pollution control device by installing and maintaining mechanical gauges to measure the applicable pressures and air flows at the: o Push Manifold – Static Pressure o Collection Manifold/Any Location within the System – Static Pressure/Volumetric Flow Rate o Across Each Stage of the Control Device – Differential Pressure	• Continuous pressure drop and inlet velocity monitoring • Record once a week	• Daily pressure drop and inlet velocity monitoring and recording

Add-On Air Pollution Control Device Parameter Monitoring	• Monitoring required of collections slots and push air manifold • Acceptable measurements and actions: o Collection Slot, > 95% of the most recent passing source test or emission screening; or ≥ 2,000 fpm o Push Air Manifold,95-105% compared to the most recent passing source test or emission screening o Action required, none • Repairable measurement and actions: o Collection Slot, 90-95% of the most recent passing source test or emission screening test, or < 2,000 fpm and > 1,800 fpm o Push Air Manifold, 90-95% or 105-110% of the most recent passing source test or emission screening test o Action required, repair • Failing Measurement and actions: o Collection Slot, < 90% of the most	None Specified	None Specified

	recent passing source test or emission screening test, or <1,800 fpm ○ Push Air Manifold, > 110% or < 90% of the most recent passing source test or emission screening test ○ Action required, immediately shut down tanks controlled by the add-on air pollution control device that had a failing measurement • An owner or operator that is required to shut down a tank controlled by an add-on air pollution control device due to a failing measurement shall demonstrate that the collection slot velocity and push air manifold are within acceptable measurement before operating the tank		
Parameter Monitoring: Velocity of Collection Slots	• Every 180 days ~~D~~demonstrate that emissions are captured ~~every 180 days~~ by the add-on air pollution control device that meets the requirements in Table 5 using: ○ A hot-wire anemometer; ○ A vane anemometer; or	None specified	None Specified

	○ A device or method approved by Executive Officer		
Parameter Monitoring: HEPA Filters	• Beginning 60 Days after completion of the initial source test, air pollution control devices equipped with HEPA filters shall be: ○ Equipped with ports ○ Calibrated once every calendar year ○ Maintained in accordance with manufacturer specification	None specified.	None specified.
Parameter Monitoring: Surface Tension	• If using a certified chemical fume suppressant, the surface tension shall be measured daily for 20 operating days, and every third operating day thereafter, but no less than once weekly.	• Monitor and record surface tension of electroplating baths weekly.	• Monitor and record surface tension of electroplating baths once every 40 hours of operation.
Inspection and Maintenance and Operation and Maintenance Plan	• Tier II Hexavalent Chromium Tanks that are not controlled by an add-on air pollution control device shall comply with the applicable inspection and maintenance requirements in Table 4-3 of Appendix 4 • Tier I, Tier II, and Tier III Hexavalent Chromium Tanks shall comply with the inspection and maintenance requirements in Table 4-2 of Appendix 4	None specified	None specified

	• Facility's Operation and Maintenance Plan shall be revised to reflect the incorporation of new inspection and maintenance requirements for a device or monitoring equipment • Prior to replacing an ampere-hour meter the owner or operator shall document with a photograph the actual ampere-hour reading of: o The ampere-hour meter being replaced; o The new ampere-hour meter after installation		
Reporting of Notification of Incidents	• Notify the Executive Officer within four hour of the incident or within four hours of any failed smoke test, any failed source test, any exceedance of a permitted ampere-hour limit, or any malfunction of a non-resettable ampere-hour meter. The notification shall include. o Date and time of the incident o Specific location and equipment involved o Responsible party to contact for further information	None specified.	None specified.

	○ Causes of the incident ○ Estimated time of repair		
Chromium Electroplating or Chromic Acid Anodizing Kit Requirements	Removed	• No person shall sell, supply, offer for sale, or manufacture for sale in California, chromium electroplating or chromic acid anodizing kits unless to an owner or operator of a permitted facility at which chromium electroplating and chromic acid anodizing is performed.	None specified.
Conditional Requirements for Permanent Total Enclosures: Triggers	• More than one non-passing source test within a 48-month period • More than one failure to cease operating a tank controlled by an add-on air pollution control device within a 48-month period due to a failing measurement of the collection system or a failed smoke test, if the facility is greater than 1,000 feet of a sensitive receptor • One failure to cease operating a tank due to a failing measurement of the collection system or a failed smoke test, if the facility is less than or equal to 1,000 feet of a sensitive receptor	None specified.	None specified.

Conditional Requirements for Permanent Total Enclosure: Procedure to Contest	• Within 30 days submit a written report providing evidence that the installation of a PTE is not warranted based on: o Incidences did not occur o Owner or operator resolved incidences in a timely manner o Implemented specific measures to minimize hexavalent chromium emissions	None specified.	None specified.
Conditional Requirements for Permanent Total Enclosure: Construction	• Install no later than 12 months after the Permit to Construct • Permit to Construct application due 180 days after notification by the Executive Officer if near sensitive receptor • Permit to Construct application due 270 days after notification by the Executive Officer for other facilities	None specified.	None specified.
Hexavalent Chromium Phase-Out	• Tier II or Tier III Hexavalent Chromium Tank shall not be required to vent to an add-on air pollution control if the owner or operator submits a Hexavalent Chromium Phase-Out Plan that contains: o A written commitment to eliminate or	None specified.	None specified.

	reduce hexavalent chromium concentrations to below the Tier II or Tier III concentrations; o A description of the method by which hexavalent chromium concentrations will be reduced or eliminated; o A list of milestones that are necessary to occur in order for the facility to eliminate or reduce hexavalent chromium; o Completion date for each milestone; o List of all control measures that will be implemented • The Executive Officer shall notify if the plan is approved or disapproved • Upon approval of the Hexavalent Chromium Phase-Out Plan, the owner or operator shall implement the approved plan and submit a progress report to the Executive Officer by the 1st of each quarter		
Time Extensions	• An owner or operator of a facility may submit a request to the Executive Officer for a	None specified.	None specified.

	one-time extension for up to 12 months to: ○ Complete installation of an add-on air pollution control device, implement an approved alternative compliance method, or implement an approved Hexavalent Chromium Phase-Out Plan to meet the requirements; or ○ Meet the hexavalent chromium emission limit, phase-out the use of hexavalent chromium, or implement an alternative to a wetting agent chemical fume suppressant; • An owner or operator of a facility that elects to submit a request for a time extension shall submit the request no later than 90 days before the compliance deadline specified in subparagraph (h)(4)(C) or paragraph (l)(5) and provide: ○ The facility name, SCAQMD facility identification		

	number, and the name and phone number of a contact person; o A description of the chromium electroplating or chromic acid anodizing tank and the SCAQMD Permit to Operate and tank number; o A description of the emission reduction approach that is being implemented; o The specific provision under subparagraph (h)(4)(C) or paragraph (l)(5) for which a compliance extension is being requested; o The reason(s) a time extension is needed; o Progress in meeting the provisions in subparagraph (h)(4)(C) or paragraph (l)(5) including but not limited to date permit application was submitted to the SCAQMD, date permit to construct was approved,		

	purchase order of equipment, date of service of contractors or consultants to install equipment; and ○ Length of time requested, up to 12 months. • The Executive Officer will review the request for the time extension and will approve the time extension if the owner or operator: ○ Demonstrates that there are specific circumstances beyond the control of the owner or operator that necessitate additional time to meet the compliance dates specified under subparagraph (h)(4)(C) and paragraph (l)(5); and ○ The demonstration is substantiated with information that includes, but is not limited to detailed schedules, engineering designs, construction plans, permit applications, purchase orders,		

	economic burden, and technical infeasibility.		

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APPENDIX A: RESPONSE TO COMMENTS

~~**Appendix A includes responses to comments received through March 15, 2018. Comments received subsequent to this date will be responded to in the Final Staff Report for PAR 1469**~~

September 18, 2017

Mr. Wayne Nastri
Executive Officer
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, California 91765

Re: Comments - Proposed Amended Rule 1469 Working Group Meeting #5

Dear Mr. Nastri:

The Metal Finishing Associations of California ("MFA") represents over 130 companies throughout Northern and Southern California, which comprise a diverse industrial base of metal finishing and related businesses that employ thousands of workers. Its members provide necessary products and services to manufacturers in various other industries, including aerospace, automotive, electronics, computers, smart phones, medical devices, energy, and other consumer and industrial products. A large segment of our membership also provides mission critical parts and components for military aircraft, satellites, telecommunications, and other defense applications. In addition, well over 90 percent of the MFA membership are family-owned, small businesses.

Joining MFA in these comments are the National Association of Surface Finishing and the California Small Business Alliance.

Located in Washington DC, NASF represents the interests of businesses, technologists and professionals in the surface coatings industry. Its highly regarded programs and activities are informed by NASF's mission to advance an environmentally and economically sustainable future for the finishing industry; and promote the vital role of surface technology in the global manufacturing value chain.

The California Small Business Alliance is a non-partisan coalition of California trade associations committed to provide small businesses with a single constructive voice before air quality management districts and other environmental regulatory agencies. While Alliance members represent small businesses, the combined impact of the membership on society and the economy is enormous. For example, in the Los Angeles metropolitan region alone, membership in the Alliance has grown to represent 14,000 companies, 700,000 employees and $42 billion in shipments.

Representatives of the MFA, including legal counsel and technical experts, have been actively engaged with AQMD staff since the beginning of the recent rulemaking process earlier this year. MFA members and its representatives have also attended all five public working group meetings, including the most recent meeting held on August 31, 2017 (referred to as "Working Group Meeting #5"), plus participated in numerous other meetings with the AQMD's legal counsel, economic experts and rule development staff. This comment letter addresses the information presented by the staff at Working Group Meeting #5, noted as follows:

1.0 AQMD TESTING DATA

At the recent working group meeting, the AQMD presented a summary of test data collected from its various enforcement activities, including liquid, air and swipe samples of process areas and metal finishing tanks. In general, the MFA remains concerned that major rulemaking and policy decisions are being based on relatively few and inconsistent data points, especially when it concerns a potential requirement of add-on control devices and other costly measures for currently unregulated tanks. While the MFA reserves the right to modify or supplement these comments based on subsequent AQMD presentations, at this time, the following summarizes our primary concerns and comments based on data presented thus far: 1-1

(1) Sodium Dichromate and Dilute Chromate Tanks – On page 13 of the AQMD presentation, test results were shown of three (3) air samples of sodium dichromate seal tanks taken from three (3) different facilities (Facility C, D and E). The tank sizes ranged from 12 to 32 square feet, and operating temperatures ranged up to 212° F. Of the three air samples presented, there was a wide range of results from 97,200 to 682,000 ng/m^3, which were sampled approximately 6 inches above the liquid surface of fully heated tanks without air sparging. Based on our review, there are inconsistencies with the sampling data as the measured air concentrations do not necessarily correlate to the hexavalent chromium concentrations within the tank. In addition, only 2 of the 3 measured facilities had valid analysis of the tank contents (Facility D and E). Of these 2 examples, the air sample concentrations of Facility D were over two times higher than Facility E, even though the hexavalent chromium concentration in the tank solution were approximately 60 percent of Facility E. While general qualitative judgements may be speculated based on this limited data, it is difficult to draw any specific conclusions or correlations given only two data points, and inconsistencies amongst these data points. 1-2

Moreover, it has not been demonstrated that potential fugitives from such tanks are being fully exhausted from building enclosures, nor that add-on controls are necessarily required. In response to a question during the workshop, an AQMD source test manager indicated that the same level of hexavalent chromium measured near the tank liquid surface were not being observed at the rooftop vents at these tested facilities. Rather, rooftop concentrations were substantially lower by orders of magnitude. In our view, if the tanks are properly maintained in buildings with open rooftop vents located at a sufficient distance away from such tanks, the likelihood of fugitives discharged from affected facilities would be sufficiently limited. As a consequence, the MFA would generally support housekeeping and best management practices as being sufficient measures to control sodium dichromate seal tanks.

(2) Nickel Acetate Seal, Hot Water and Teflon Seal – On page 14, test results were shown of four (4) liquid samples of nickel acetate, one (1) liquid sample of DI water seal and one (1) liquid sample of teflon seal tank. The tank sizes ranged from 4.5 to 30 square feet. Based on the presented test data, hexavalent chromium concentrations in these tank solutions were less than 1 ppm or non-detect in all cases, except for teflon seal tank which was measured at 5 ppm. In our view, these types of tanks do not require any further regulatory action nor other control measures. 1-3

(3) Chromate Conversion and Dye Tanks – On page 15, test results were shown for one (1) air sample of a chromate film tank (Facility D), which indicated a near surface concentration of 8,340 ng/m^3. In addition, two (2) liquid samples from two (2) chem film tanks (Facility C and G), which measured at 4 and 2,880 ppm, respectively. There was also one (1) liquid sample from an alodine clear tank (Facility F), which measured 300 ppm. Lastly, there was six (6) liquid samples from different color dye tanks (Facility C and F), in which hexavalent chromium concentrations were less than 1 ppm or non-detect in all cases, with exception of two tanks that measured 2 and 8 ppm, respectively. In our view, all of these tank types do not require any further regulatory action nor other control measures. 1-4

(4) Rinse, Cleaner and De-smut Tanks – On page 16, test results were shown for five (5) liquid samples of standard rinse tanks (Facility B, C and F), in which hex chrome concentrations were less than 4 ppm in all cases, with exception of one anomalous tank. In addition, there were three (3) liquid samples from DI rinse tanks (Facility A, F and G), in which hex chrome concentrations measured less than 0.25 percent by weight, respectively. Lastly, there were three (3) liquid samples from two cleaner tanks and one de-smut tank, in which hex chrome concentrations were less than 0.001 percent by weight. In our view, these types of tanks do not require any further regulatory action nor other control measures. 1-5

(5) Passivate, Etch, Neutralizer and Stripping – On page 17, test results were shown for one (1) liquid samples taken from tanks that performed stripping, passivation, passivate rinse, etch and acid neutralizer, respectively. Hexavalent chromium concentrations from these tank solutions were less than 0.021 percent by weight in all tanks, with the exception of the passivation and stripping tank which measured 10,000 and 47,400 ppm, respectively. In the latter cases, neither the tank surface air concentrations nor tank operating temperatures were recorded or measured. However, the MFA would generally support housekeeping and best management practices as being sufficient measures to control these tanks. 1-6

2.0 PROPOSED RULE STRUCTURE

At this latest meeting, the AQMD presented a proposed rule structure and proposed rule language for certain sections, which included rule applicability, definitions, general requirements, housekeeping and best management practices (BMPs). In general, the MFA is supportive of the proposed rule structure, as presented at the last working group meeting. While the MFA reserves the right to modify or supplement these comments based on subsequent AQMD presentations, the following summarizes our primary comments at this time:

(1) Ambient Air Monitoring – The AQMD indicated that ambient air monitoring would be considered in a separate rulemaking which could impact multiple industries, and therefore, would not be proposing such requirements in the amended Rule 1469. The MFA remains concerned about the use of ambient air monitoring (and fence line limits) for rulemaking and enforcement purposes.

MFA reiterates it request in Workshop #5 that, prior to the inclusion of air monitoring provisions in any newly amended rules, the District consider the recently-enacted AB 617 [Garcia] Chapter 136, Statutes of 2017 and work with the California Air Resources Board [CARB] to implement the requirements of that law. 1-7

The new law requires CARB, by October 1, 2018, to prepare a monitoring plan regarding technologies for monitoring criteria air pollutants and toxic air contaminants and the need for and benefits of additional community air monitoring systems. It also requires CARB to select locations around the state for the preparation of community emissions reduction programs, and requires an air district containing a selected location, within one year of the state board's selection, to adopt a

community emissions reduction program. By increasing the duties of air districts, this bill would impose a state-mandated local program.

It is important that implementation of these new laws with statewide application occurs without a duplication of efforts, and with a mind to the costs versus benefits. 1-7 (cont'd)

(2) Tier I and Tier II Hexavalent Chromium Tanks – The MFA supports the concept of a Tier I and II hex chrome tanks for regulatory purposes. However, the MFA is still reviewing potential hexavalent chromium concentration, temperature and other limits which could define these categories. Irrespective, based on our review of the test data presented to date (and as noted above), the MFA believes most of the tank categories will not require further controls or other regulatory action. In cases of other potential applicable tanks, the MFA does not anticipate that add-on controls will be necessary, but rather housekeeping and BMPs would be sufficient control measures under the amended rule. 1-8

(3) Housekeeping – The MFA supports housekeeping measures for applicable tanks under the amended rule with few exceptions. However, the MFA does not support daily cleaning of applicable tanks, as currently proposed in PAR Rule 1469 (f)(4), as this places an undue burden on metal finishers. The current cleaning requirement is once per week, which we believe is sufficient housekeeping. In addition, the AQMD is proposing a new cleaning requirement under PAR Rule 1469 (f)(7) which requires the cleaning, using an approved cleaning method, of "suspected chromic acid residue" within 24 hours, such as visible stains. The MFA opposes this additional cleaning method as this would place an undue burden on metal finishing facilities, and also open to wide interpretation for enforcement officers in the issuance of Notices of Violations. 1-9

(4) Best Management Practices – The MFA supports BMPs for applicable tanks under the amended rule with few exceptions. Regarding the proposed limitations on using water sprays as currently proposed in PAR Rule 1469 (g)(2), the MFA does not believe such limitations are necessary. Given the water spray typically occurs over rinse tanks, and that neither the parts nor rinse tank will have significant amounts of chrome laden liquid. 1-10

(5) Permanent Total Enclosures (PTEs) – The AQMD is considering a trigger for PTEs for both Tier I and II chrome tanks based on (a) failure of a source test twice within 36 months; or (b) failure to correct deficient slot velocity measurements within a specified time period. In general, the MFA does not believe that PTEs are necessary to control potential Tier I or II tanks, as we anticipate housekeeping and BMPs would be sufficient control measures. In addition, equipment source testing can be very costly, especially for facilities with many regulated tanks or permit units. As a consequence, the MFA is concerned about repetitive source testing requirements, which are unnecessary for compliance purposes. In addition, as we have noted before, the use of PTEs can also be very costly and difficult to implement, especially for facilities that were not designed nor constructed to accommodate them for existing tank operations. 1-11

The MFA also strongly encourages the AQMD to consider the ongoing confirmation that the provisions in the proposed rule update that are of concern to MFA are not necessary. This is documented by the results AQMD has obtained through its extensive hexavalent chromium monitoring in Compton, obtained from 36 separate sampling dates, beginning on June 30 of this year, and now involving seven sites. 1-12

The MFA and its representatives look forward to continued discussions on the amended rule with the AQMD. Thank you and we look forward to your response.

Sincerely,

Wesley Turnbow
President

cc: Barry Groveman, Musick Peeler
Ryan Hiete, Musick Peeler
Susan Nakamura, SCAQMD (via email only)
Kurt Wiese, SCAQMD (via email only)

Responses to Metal Finishing Association of Southern California (MFASC) Comment Letter, submitted 9/18/17

1-1 Response: Since this comment was submitted, additional source testing of tanks that operate between 140 and 170 degrees have been conducted. Using these additional data points combined with previous tank source tests, the SCAQMD staff has developed a table based on concentration thresholds that are based on source test data, with input from industry representatives that further refines the tiers of tanks by adding three tiers of tanks, in order to incorporate provisions for an interim "Tier II Tank" where emission reductions strategies are needed, but not add-on pollution controls.

1-2 Response: Please see response to comment 1-1. Regarding the comment on fugitive emissions escaping from the building enclosure, ambient monitoring and sampling at metal finishing facilities in Newport Beach, Paramount and Long Beach have shown elevated levels of hexavalent chromium that were attributed to cross-drafts that allowed hexavalent chromium emissions to exit the building enclosure and hexavalent chromium emitting tanks that are currently not regulated under Rule 1469. Hexavalent chromium emissions were substantially reduced after operators closed building openings including rooftop vents that allowed emissions to be emitted out of the building, demonstrating the need to establish operating parameters for building enclosures. Regarding the comment on the difference in sampled concentrations, SCAQMD staff does not have the tank concentrations, nor specific operating temperatures which would affect the sampled concentrations. While there is variability between the sampled results, all 3 sampled concentrations were more than 10 times the measured concentration of a chromic acid anodizing tank controlled by chemical fume suppressant.

1-3 Response: Based on the tanks that staff has observed, the tanks referenced in the comment are all considered to be either Tier I Tanks or associated process tanks and do not have control requirements under PAR 1469, except for housekeeping and the requirement to operate Tier I Tanks inside a building. It is the responsibility of the owner or operator to assess the operating parameters (temperature and hexavalent chromium concentration) of a tank and then determine if the tank is a Tier I, II, or III Hexavalent Chromium Tank.

1-4 Response: Based on the tanks that staff has observed, the tanks referenced in the comment are all considered to be Tier I tanks and do not have control requirements under PAR 1469, except for housekeeping and the requirement to operate Tier I tanks inside a building. It is the responsibility of the owner or operator to assess the operating parameters (temperature and hexavalent chromium concentration) of a tank and determine if the tank is a Tier I, II, or III Hexavalent Chromium Tank.

1-5 Response: Based on the tanks that staff has observed, the tanks referenced in the comment are all considered to be associated process tanks, with the possible exception of rinse tanks that can build up concentrations of hexavalent chromium above Tier I allowable concentrations. Tier I Tanks only have housekeeping requirements and are required to be operated within a building. It is the responsibility of the owner or operator to assess the operating parameters (temperature and hexavalent chromium concentration) of a tank and determine if the tank is a Tier I, II, or III Hexavalent Chromium Tank.

1-6 Response: Based on the tanks that staff has observed, the tanks referenced in the comment are all considered to be Tier I Tanks, with the possible exception of electrolytic stripping tanks that can be Tier III Tanks, unless the tank meets the temperature and hexavalent chromium concentrations of a Tier I or II Tank. Tier III Tanks have control requirements under the rule proposal. It is the responsibility of the owner or operator to assess the operating parameters (temperature and hexavalent chromium concentration) of a tank and determine if the tank is a Tier I, II, or III Hexavalent Chromium Tank.

1-7 Response: SCAQMD staff has initiated rule development for Proposed Rule (PR) 1480 – Air Toxic Metals Monitoring which will provide a comprehensive approach to monitoring air toxics metals at various communities near a variety of industries. Therefore, it is more appropriate to consider monitoring within the context of PR 1480 instead of within PAR 1469.

Staff understands the requirements of AB 617 and will work with all stakeholders during development of PR 1480.

1-8 Response: Tier I Tanks are subject to housekeeping requirements under the rule proposal. Tier II Tanks and Tier III Tanks (formerly Tier II Tanks) must meet emission limits that require installation of air pollution controls. In general, best management practices apply to Tier II and II Tanks, ~~but~~ and there are labeling requirements for Tier I, II, and III Tanks.

1-9 Response: The housekeeping provision under paragraph (f)(4) has been modified to read: *Clean, using an approved cleaning method, surfaces within the enclosed storage area, open floor area, walkways around the electroplating or anodizing tanks, or any surface potentially contaminated with hexavalent chromium or surfaces that potentially accumulate dust at least weekly*. This language exists in the current version of Rule 1469. Regarding the comment about visible stains, the language pertaining to "suspected chromic acid residue" in an earlier proposal has been removed.

1-10 Response: The requirement for water spraying/rinsing has been modified to require that *the owner or operator shall not spray rinse parts or equipment that were previously in a Tier II or Tier III hexavalent chromium tank, unless the parts or equipment are fully lowered inside a tank where the liquid is captured inside the tank.* Please refer to paragraph (g)(2) for more information regarding water spray rinsing requirements.

1-11 Response: The triggers to require a permanent total enclosure (PTE) have been modified such that the timing is based on 48 months rather than 36 months. The triggers that will require a PTE are included in subdivision (t):

- More than one non-passing source test within a consecutive 48 month period; or
- The owner or operator of a facility failed to meet the requirements to shut down a tank controlled by an add-on air pollution control device more than once within a consecutive 48-month period for a facility that is located more than 1,000 feet from a sensitive receptor; or
- The owner or operator of a facility failed to meet the requirements to shut down a tank controlled by an add-on air pollution control device once for a facility that is located less than or equal to 1,000 feet from a sensitive receptor.

PAR 1469 allows ~~for a~~ a facility to contest the PTE requirement. The owner or operator is allowed to contest the requirement to install a permanent total enclosure within 30 days of receiving notification from the Executive Officer that the requirement had been triggered. A written report contesting the requirement must include evidence that installation of the permanent total enclosure is not warranted based on the several criteria:

- The specified incidents of non-compliance did not occur; or
- The owner or operator of a facility resolved the specified incidents of non-compliance in a timely manner; and
- The owner or operator of a facility implemented specific measures to minimize the hexavalent chromium emissions.

1-12 Response: PAR 1469 is necessary. Ambient monitoring in Compton near Rule 1469 facilities was initiated after ambient monitoring efforts near Rule 1469 facilities in Newport Beach, Paramount, and Long Beach were conducted. Facilities in Compton had the benefit of learning about tanks that were potential high hexavalent chromium emitters and the importance of building enclosures. PAR 1469 is needed to require pollution controls on tanks with potentially high hexavalent chromium emissions, such as heated sodium dichromate seal tanks. PAR 1469 also establishes needed requirements to minimize cross-drafts from buildings with Rule 1469 hexavalent chromium tanks and housekeeping and best management practices. These provisions have been instrumental in reducing hexavalent chromium emissions near the Rule 1469 facilities in Newport Beach, Paramount, and Long Beach.

Throughout the rulemaking process, the SCAQMD staff has worked with the Metal Finishing Association of Southern California on a variety of provisions to allow more flexibility, ensure provisions are enforceable, provide additional clarity, and remove unnecessary provisions.

MFASC
METAL FINISHING ASSOCIATION OF SOUTHERN CALIFORNIA, INC.

MFANC
METAL FINISHING ASSOCIATION OF NORTHERN CALIFORNIA, INC.

NATIONAL ASSOCIATION FOR SURFACE FINISHING
NASF

CALIFORNIA Small Business Alliance

October 12, 2017

Mr. Wayne Nastri, Executive Officer
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, California 91765

Re: Comments – Proposed Amended Rule 1469 Working Group Meeting #6

Dear Mr. Nastri:

The Metal Finishers Associations of California ("MFA") represents over 130 companies throughout Northern and Southern California, which comprise a diverse industrial base of metal finishing and related businesses that employ thousands of workers. Its members provide necessary products and services to manufacturers in various other industries, including, aerospace, automotive, electronics, computers, smart phones, medical devices, energy, and other consumer and industrial products. A large segment of our membership also provides mission critical parts and components for military aircraft, satellites, telecommunications, and other defense applications. In addition, well over 90 percent of the MFA membership are family-owned, small businesses.

Joining the MFA in these comments are the National Association of Surface Finishing ("NASF") and the California Small Business Alliance.

Located in Washington DC, NASF represents the interests of businesses, technologists and professionals in the surface coatings industry. Its highly regarded programs and activities are informed by NASF's mission to advance an environmentally and economically sustainable future for the finishing industry; and promote the vital role of surface technology in the global manufacturing value chain.

The California Small Business Alliance is a non-partisan coalition of California trade associations committed to provide small businesses with a single constructive voice before air quality management districts and other environmental regulatory agencies. While Alliance members represent small businesses, the combined impact of the membership on society and the economy is enormous. For example, in the Los Angeles metropolitan region alone, membership in the Alliance has grown to represent 14,000 companies, 700,000 employees and $42 billion in shipments.

Representatives of the MFA, including legal counsel and technical experts, have been actively engaged with AQMD staff since the beginning of the recent rulemaking process earlier this year. MFA members and its representatives have also attended all six public working group meetings, including the most recent meeting held on September 20, 2017 (referred to as "Working Group Meeting #6"), plus participated in numerous other meetings with the AQMD's legal counsel, economic experts and

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rule development staff. This comment letter addresses the information presented by the staff at Working Group Meeting #6, noted as follows:

1.0 GENERAL COMMENTS

At Working Group Meeting #6, the AQMD presented proposed draft rule language for PAR 1469 and a summary presentation of the staff proposal. While the MFA reserves the right to modify or supplement these comments based on subsequent AQMD presentations, at this time the following summarizes our primary concerns and comments based on data presented thus far:

(1) New Source Review – As explained during the prior workshop, the MFA is concerned with the applicability of New Source Review ("NSR") per AQMD Rule 1303 (criteria pollutants) and Rule 1401 (air toxics) for facilities seeking to implement the proposed amended rule. NSR generally applies to "new permit units, relocations, or modifications to existing permit units." If triggered, permit applications and agency fees could range up to $3,000 per permit unit/application. In addition, in the case of Rule 1401 the permit applicant must demonstrate compliance with an increased Maximum Individual Cancer Risk ("MICR") of 1 in 1 million, or 10 in 1 million with use of T-BACT, which could mean the preparation of expensive Health Risk Assessment ("HRA") reports that range up to $25,000 each. Further, permit applications could take months or years awaiting AQMD review, approval and final permit issuance.

There are many examples of facility actions that may be construed as a "modification" or otherwise trigger NSR. A few examples of Best Management Practices ("BMPs"), housekeeping and other control measures under PAR 1469 which may trigger NSR are (a) relocating tanks farther away from roof vents, (b) installing covers to existing tanks, (c) adding polyballs or other mechanical fume suppression, (d) replacing air sparging with mechanical agitation, (e) installing or upgrading pressure gauges, flowmeters or other required monitoring devices, or (f) installing a total enclosure around existing tanks. Moreover, NSR could also apply if the AQMD denies potential NSR exemptions for submitted permit applications, including Rule 1401(g)(1)(B) and (C) for "Modifications with No Increase in Risk" and "Equipment Previously Exempted Under Rule 219", respectively. NSR applicability could incur significant permitting costs as noted above, plus create considerable delays in implementing PAR 1469 emission reduction measures which are intended to protect the public health. Further, such delays in AQMD approval and permit issuance only increase the regulated facility's exposure of receiving Notices of Violation ("NOVs") for failure to implement PAR 1469 measures. 2-1

To address these concerns, the MFA requests that additional language be placed into PAR 1469 which clearly states that the implementation of such BMPs, housekeeping and other control measures would not trigger NSR. And in cases where permit action is necessary, the MFA requests rule language that clarifies and confirms such actions would be exempted from NSR requirements. For example, PAR 1469 may include the following proposed language:

"New Source Review Applicability – The implementation of applicable rule requirements for existing facilities and equipment as of [date of adoption] shall not be deemed a new source, modification nor otherwise trigger permit action or New Source Review. Further, the Executive Officer or his representatives shall not deny any existing New Source Review exemption for permit applications submitted to comply with rule requirements, including but not limited to equipment previously exempted under Rule 219 and modifications with no increase in risk.

(2) Chrome Tank Test Data – As noted previously, the MFA remains concerned that major rulemaking and policy decisions are being based on inconsistent data and little scientific support, especially when it concerns a potential requirement of add-on control devices and other costly measures for currently unregulated tanks. For proposed control requirements under PAR 1469, the cart 2-2

is clearly in front of the horse. If the AQMD wants to effectively control emissions for a technology-based rule, it should start by quantifying emissions from various tank conditions, then and only then, can reasonable determinations be made as to what may pose a "a problem" and how to correct it. For example, it is not clear that an add-on control device would be needed to reduce uncontrolled emissions from a facility. In addition, all of the provisions required in the proposed rule to control additional emissions from other potential sources of hexavalent chromium would be tremendously burdensome for industry, and have essentially no effect on emissions. It is not possible to justify the required rule changes since the AQMD has yet to adequately quantify emissions from applicable tanks. 2-2 (cont'd)

(3) Ambient Air Monitoring – The AQMD has indicated that ambient air monitoring would be considered in separate rulemaking which could impact multiple industries, and therefore, would not be proposing such requirements in the amended Rule 1469. The MFA continues to remain concerned about the use of ambient air monitoring (and fence line limits) for rulemaking and enforcement purposes and have raised legitimate issues of flawed assumptions, unreliable data, contributing sources, prohibitive costs and inconclusive results. Nevertheless, the AQMD continues to selectively utilize such unreliable ambient monitoring data to support its enforcement objectives and unfairly target metal finishers. Moreover, the AQMD continues to rely upon an unsubstantiated 1 ng/m^3 hexavalent chrome standard that is not supported by the current science for enforcement purposes, including orders for facility shut down and business curtailment. Based on testimony of affected small businesses, it is clear the AQMD's continued use of such unreliable air monitoring data is having significant adverse economic impacts, including loss of customers, decreased business volumes and employee layoffs. The MFA will reserve further comment until the AQMD initiates the separate rulemaking regarding ambient air monitoring. 2-3

2.0 FUGITIVES FROM METAL FINISHING OPERATIONS

The MFA does not believe there has been sufficient demonstration that potential fugitive emissions from unregulated chrome tanks are being significantly exhausted from building enclosures, nor that add-on control devices are necessarily required for such tanks. Under existing Rule 1469, the applicable emission limits for existing chromium electroplating and chromic acid anodizing tanks is 1,500 ng/amp-hr, which is typically measured after add-on control devices, such as High Efficiency Particulate Air (HEPA) systems. These add-on control devices are generally mounted on rooftops through a single exhaust stack with forced ventilation. The AQMD continues to be concerned about fugitive emissions from unregulated tanks containing hexavalent chromium, which are being discharged from metal finishing buildings. Rather than relying on assumptions, the AQMD needs to base its regulatory policy and rulemaking on validated scientific data that demonstrates significant fugitive emissions are actually being discharged from buildings through roof vents, doors, windows and other openings. Thus far, any substantial scientific data making such demonstration for fugitive emissions is lacking. Quite the contrary, based on statements from the AQMD source testing staff during the working group meetings, it appears that measured fugitive emissions through rooftop vents from unregulated tanks are far below any measurements at the tank surface by several orders of magnitude, even without any add-on control devices. 2-4

As evidence to support this conclusion, it is our understanding that the highest measurements of fugitive emissions from roof vents at metal finishing operations that has been collected by the AQMD is approximately 30 ng/m^3. In addition, the U.S. Environmental Protection Agency ("EPA") examined the unregulated tanks containing hexavalent chromium as part of both the chromium electroplating NESHAP and the plating and polishing area source NESHAP, and chose not to impose emission limits or controls. Furthermore, the U.S. Occupational Safety and Health Administration ("OSHA") did not recommend engineering controls for these unregulated tanks when setting the

federal workplace exposure standard for hexavalent chromium. In short, these regulatory agencies believed that the emissions from these sources did not contribute significantly to air emissions or workplace exposure levels.

As another example of why fugitive emissions from the unregulated tanks are very low, facilities with dichromate seal tanks that have high concentrations of hexavalent chromium are compliant with the OSHA workplace exposure standard for hexavalent chromium with very low workplace exposure levels. If the workplace exposure levels of workers in the breathing zone only a few feet away from tanks are several orders of magnitude lower than the concentrations of hexavalent chromium in the tanks, then it is unlikely that fugitive emissions from these tanks leaving the building would be of much consequence unless, of course, the tank is constantly air sparged and/or running near the boiling point.

Based on the data gathered thus far, the fugitive emissions from the unregulated sources exiting the building would be considerably less than the emissions from the permitted sources. Accordingly, the elimination of all fugitive emissions from metal finishing operations would do little, if anything, to reduce ambient air concentrations of hexavalent chromium, particularly considering that metal finishing emissions of hexavalent chromium represent less than one percent of the total hexavalent chromium emissions according to the U.S. EPA National Emissions Inventory.

2-4 (cont'd)

3.0 PROPOSED RULE AMENDMENTS

At this latest meeting, the AQMD presented proposed rule language which included rule applicability, definitions, general requirements, housekeeping and best management practices (BMPs). While the MFA reserves the right to modify or supplement these comments based on subsequent AQMD presentations, the following summarizes our primary comments at this time:

(1) Rule Applicability – As explained by AQMD staff, PAR 1469 would apply to chromium electroplating, chromic acid anodizing tanks and associated chrome tanks. Based on our understanding those facilities which do not operate chromium electroplating or chromic acid anodizing tanks would not be subject to PAR 1469, although they may operate tanks with chromium for other purposes. In addition, those tanks which are not associated with chrome plating or chrome anodizing would also not be subject to PAR 1469. If our understanding is correct, this rule applicability for PAR 1469 is consistent with existing Rule 1469 regarding applicable tanks, so the MFA has no further comment.

2-5

(2) Tier I Hexavalent Chromium Tanks – *The MFA would not suggest utilizing a hexavalent chromium concentration for tank classification because not enough data has been provided to support a parts per million number.* Furthermore, it has not yet been proven that hexavalent chromium concentration is a good predictor for high hexavalent chromium emissions. HOWEVER, if concentration levels as measured in parts per million ("ppm") are to be utilized than we offer the following: Tier I tanks should only capture those tanks which exhibit the highest potential for emissions, and therefore exclude tanks which otherwise should remain unregulated. In this regard, the MFA supports the following definition of Tier I tank under PAR 1469 – A Tier I tank means "a tank containing a hexavalent chromium concentration of 50,000 ppm or greater." Based on the AQMD test data provided thus far, the MFA anticipates the following tanks would not qualify as Tier I tanks:

2-6

- Nickel Acetate Seal, Hot Water Seal, Teflon Seal
- Chromate Conversion, Dye Tanks
- Cleaner, De-smut Tanks
- Etch, Neutralization, Passivation
- Rinse Tanks

(3) Tier II Hexavalent Chromium Tanks – *The MFA would not suggest utilizing a hexavalent chromium concentration or a temperature level for tank classification because not enough data has been provided to support a parts per million number or a temperature level cutoff.* Furthermore, it has not yet been proven that hexavalent chromium concentration is a good predictor for high hexavalent chromium emissions. And more data should be sought and provided before setting a square footage level as well. HOWEVER, if the AQMD anticipates add-on control devices for Tier II tanks, then the regulatory definition should be limited to only those tanks which have the following characteristics: (a) a minimum concentration of 75,000 ppm of hexavalent chromium, (b) minimum operating temperature of 190° F, and (c) conducts air sparging. The MFA opposes the generic requirement of "continuous bubbling" observed at the surface of the tank as being a potential qualifier for Tier II tank applicability, as this is vague and subject to wide interpretation by AQMD enforcement officers. 2-7

(4) Freeboard Height – PAR 1469 would require a minimum freeboard height of 8" for applicable Tier I and II tanks, which are newly installed (or modified) after the rule adoption date. The freeboard height requirement would not apply to existing tanks prior to rule adoption. The MFA opposes a freeboard height requirement for existing, new or modified applicable tanks because it has not been demonstrated that a minimum freeboard height results in any meaningful emission reductions. In general, facility operators are already incentivized to maintain a tank freeboard to preserve product quality and minimize chemical losses. To manage a different freeboard height for different tanks would create compliance issues for facility operators while providing minimal environmental benefit. In addition, reconfiguring tanks to provide for additional freeboard may not be feasible for most facilities. At the very least it would be expensive for facilities that could replace or reconfigure tanks to accommodate their parts and the additional freeboard. 2-8

(5) Building Enclosures – Pursuant to PAR 1469 (e), the MFA is concerned about the vagueness in the existing proposed rule language for building enclosures, including cross draft requirements, prohibition of forced air ventilation, sensitive receptor requirements, closure of building openings and others. Based on our interpretation, a building with just a single Tier I tank could not operate with any force air ventilation, must close off any nearby roof vents, and shut all of its doors during operations. If that is not the AQMD intent then the MFA requests clarity in the draft rule, otherwise, there would be wide interpretation by AQMD enforcement officers and potential Notices of Violation. In addition, the MFA does not support monthly inspections of the building enclosures for "breaks, cracks, gaps or deterioration" nor a 72-hour repair requirement, as these requirements are similarly vague and would likely lead to NOVs. 2-9

(6) Permanent Total Enclosures ("PTEs") – PAR 1469 (e)(9) specifies a trigger for PTEs for Tier II tanks based on (a) failure of a source test within 48 months, or (b) more than one incident of failure of smoke and/or slot velocity measurements. If triggered, PAR 1469 requires permit applications for a PTE within 90 to 180 days, and construction of the PTE within 12 months. The MFA does not believe that PTEs are necessary to control potential Tier II tanks, as we anticipate the use of buildings, housekeeping and BMPs would be sufficient control measures. As we have noted before the use of PTEs can also be very costly and difficult to implement, especially for facilities that were not originally designed nor constructed to accommodate PTEs for existing tank operations. 2-10

(7) Source Testing – PAR 1469 (k)(1) will require compliance source testing every 36 months. As we have noted compliance source testing for hexavalent chromium is very costly, especially for facilities with many regulated tanks or permit units. In addition, these source tests generally require several days and disrupt production operations. Given that HEPA control systems for 2-11

applicable tanks maintain adequate operational efficiency for many years, the MFA questions the need for source testing every 36 months. We are not aware of any other industry with such a rigorous frequency of compliance source testing for add-on control devices. 2-11 (cont'd)

(8) Capture Efficiency Testing – PAR 1469 (k)(6) specifies routine slot velocity and smoke testing for applicable tanks with add-on control devices every month and 6-months, respectively. In particular, PAR 1469 specifies that a facility must "shut down" all chrome electroplating and anodizing lines if such capture tests show a slight deviation of 5% to 10% from the most recently approved AQMD approved source test. The MFA is very concerned with such stringent limitations and the shut down requirement, given the numerous factors that could impact these capture test results, such as equipment sensitivity, testing locations, personnel handling and others. 5% to 10% is a small margin for error which would be difficult to ensure compliance, could result in unnecessary equipment shut downs, and possibly lead to triggering the on-ramp for a PTE pursuant to PAR 1469 (e)(9)(A). 2-12

(9) Notification of Incidents – PAR 1469 (p)(4)(A) requires a regulated facility to notify the AQMD within "one hour" of any failed smoke test, failed source test, exceedance of a permitted ampere-hour limit or malfunction of a non-resettable ampere-hour meter. Further, PAR 1469 (p)(4)(B) requires corrective action and a written report within seven (7) days of notification. The MFA believes these proposed notification requirements are redundant as existing AQMD Rule 430 already covers the reporting of such incidents that result in rule or permit violations. 2-13

(10) Parametric Monitoring – PAR 1469 (m)(1)(D) adds a new requirement that the operator "shall ensure any velocity within 10 feet" of a Tier II tank with an add-on control device is "less than one-tenth of the collection slot velocity as specified in the most recent successful source test." The MFA requests that this proposed requirement be removed as it is unclear what purpose it serves. Moreover, due to its vagueness the requirement would be subject to wide interpretation by AQMD enforcement and likely lead to NOVs. 2-14

(11) Surface Tension Testing – PAR 1469 (o)(4)(D) proposes a "daily" surface tension test for applicable tanks. The MFA opposes such daily testing since the current requirement of weekly surface tension testing is sufficient to ensure compliance. 2-15

(12) Housekeeping – The MFA supports housekeeping measures for applicable tanks under the amended rule with few exceptions. However, the MFA opposes daily cleaning of applicable tanks and operational areas as currently proposed in PAR 1469 (f)(4) and (f)(6). This would place an undue burden on metal finishers. The current cleaning requirement is once per week and we believe this is sufficient housekeeping for applicable operations. As a general note, increasing the administrative burden by requiring tasks or record keeping to be performed more frequently is not conducive to efficient compliance or inspection, and the increased frequency typically has negligible effects on emissions. 2-16

(13) Water Spraying – The MFA supports Best Management Practices for applicable tanks under the amended rule with few exceptions. Regarding the proposed limitations on using water sprays as currently proposed in PAR 1469 (g)(2), the MFA does not believe such limitations are necessary. Given that water spray typically occurs over rinse tanks and that neither the parts nor the rinse tank will have significant amounts of chrome laden liquid. This requirement would impose unnecessary compliance costs with little or no environmental benefit. 2-17

(14) Compressed Air Cleaning or Drying – Regarding the proposed limitations on using compressed air cleaning or drying as currently proposed in PAR 1469 (g)(7), the MFA does not believe such limitations are necessary. At this point in the process any residual rinse water on finished parts will have negligible amounts of hexavalent chrome, if any. This requirement would impose unnecessary compliance costs with little or no environmental benefit. 2-18

(15) Rinse Tanks – Regarding the proposed limits on rinse tanks as proposed in PAR 1469 (g)(8), the MFA opposes a maximum hex chrome concentration for rinse tanks. Generally speaking, rinse tanks, no matter how concentrated, are not emitters as they are not heated, air sparged or electrified. Rinse tank requirements would not yield any significant environmental benefit as these tanks have negligible amounts of hexavalent chrome content, if any. This will place an undue burden on metal finishers to conduct frequent analytical testing on a daily basis for hex chrome concentrations to ensure compliance. Most metal finishing facilities do not have such analytical equipment or technical capabilities. 2-19

(16) Add-on Control Devices for Tier II Tanks – PAR 1469 (h)(6) specifies add-on control devices for Tier II tanks and proposes a hex chrome emission limit which is to be determined. As noted above, the MFA questions the need for add-on control devices for Tier II tanks based on the limited and inconsistent emission data collected for chrome tanks and rooftop vents. If an emission limit will be adopted, the MFA opposes an emission limit for Tier II tanks which would be lower than the current hex chrome emission limits specified by Table 1, which are currently applicable to existing tanks. The current state of pollution control technology has not significantly changed since the prior amendments to Rule 1469 and, therefore, any lower emission limits would not be justified. 2-20

The MFA and its representatives look forward to continued discussions on the amended rule with the AQMD. Thank you and we look forward to your response.

Sincerely,

Wesley Turnbow
President

cc: Barry Groveman, Musick Peeler
Ryan Hiete, Musick Peeler
Susan Nakamura, SCAQMD (via email only)
Kurt Wiese, SCAQMD (via email only)

Responses to Metal Finishing Association of Southern California (MFASC) Comment Letter, submitted 9/18/17

2-1 Response: New Source Review (NSR) and T-BACT requirements are only triggered by an emissions increase. BMPs and housekeeping are generally not activities that require an SCAQMD permit and are not considered a modification and therefore not subject to NSR or requirements to install T-BACT. Many of the activities listed in the comment would be implemented to reduce emissions and would not result in an emissions increase; for example, addition of polyballs or mechanical fume suppressants, installation of pressure gauges, flowmeters and other monitoring equipment, installing a total enclosure around existing tanks, and installing heating, cooling or other rooftop ventilation equipment are all activities that are expected to decrease and not increase emissions. In addition, there is no longer a prohibition on air sparging as was the case when this comment was submitted. Covers for Tier II Tanks are allowed as a method of control, and are allowable for Tier III Tanks in the interim period before air pollution control systems are installed. Please contact SCAQMD Engineering and Permitting staff to determine whether other activities will require a permit application to be submitted and whether an increase in emissions is assumed for these activities.

2-2 Response: Please see Response to Comment 1-1.

2-3 Response: Please see Response to Comment 1-7. ~~During~~ Staff has initiated the rule development process for Proposed Rule 1480 – Air Toxic Metals Monitoring~~. for~~ which includes ambient monitoring, background information and proposed provisions such as applicability, timing as to when a facility would be required to conduct ambient air monitoring, thresholds, pollutants monitored, and other actions that would be required based on the results of ambient air monitoring have been or will be discussed. Staff has explained the basis of the 1 ng/m3 hexavalent chromium threshold used in Orders for Abatements for certain facilities in Paramount and Long Beach in multiple PAR 1469 Working Group Meetings. In addition, through ambient monitoring efforts conducted by the SCAQMD there were no orders for facility-wide shutdowns. Provisions in the orders for abatement did require facilities to cease hexavalent chromium emitting operations until the average ambient concentration was below a specified threshold.

SCAQMD has a robust ambient monitoring program that ensures accurate results with established quality assurance and quality control procedures. The ambient monitoring activities in Paramount, Long Beach and Compton were subject to SCAQMD protocols and procedures that are used during sample collection, instrument calibration, chain of sample custody and sample analysis.

2-4 Response: Please see Responses to Comments 1-2 and 1-12.

2-5 Response: PAR 1469 ~~is applicable~~applies to facilities performing chromium electroplating and chromic acid anodizing. PAR 1469 requirements are specific to tanks at these facilities. If facilities that do not perform chromium electroplating or chromic acid anodizing have process tanks that contain chromium, these other facilities are not subject to the requirements of PAR 1469. However, they may be subject to Rule 1426, and under a future rulemaking for PAR 1426 additional requirements may be imposed.

2-6 Response: The Tier I Tank definition, as discussed at Working Group meetings and Public Workshops is contained in paragraph (c)(57). A concentration of 1,000 ppm is appropriate to differentiate Tier I Tanks from those with lower concentrations of hexavalent chromium that have very limited potential for fugitive emissions. The 1,000 ppm threshold for a Tier I Tank was based on the 2012 National Emission Standards for Hazardous Air Pollutants (NESHAP). SCAQMD staff conducted source tests to determine the hexavalent chromium emissions associated with tanks at varying temperatures and concentrations to define Tier I, II, and III tanks. Please also see Response to Comment 14-2.

2-7 Response: Please see Response to Comment 1-1. SCAQMD staff has conducted additional emissions testing and added a new definition for a Tier II and Tier III Hexavalent Chromium Tank. The Tier II Hexavalent Chromium Tank definition is contained in paragraph (c)(58) and the Tier III Tank definition is contained in paragraph (c)(59). Tier III Tanks have the highest potential for emissions and these tanks are the focus of new requirements in PAR 1469. Staff has worked with the stakeholders to refine the concept for these tanks, including the concentration thresholds used in Appendix 10 to define Tier II and Tier III Hexavalent Chromium Tanks.

2-8 Response: The requirements for freeboard height have been removed from PAR 1469.

2-9 Response: Many of the requirements for a building enclosure have been modified since the comment was submitted, including the requirement for Tier I Tanks to be located within a building enclosure that meets the definition of a building enclosure under paragraph (c)(11) and the need for repairs is now clarified to apply to any breach in a building enclosure, however, operation of a Tier I Hexavalent Chromium Tank does not need to be in a building enclosure that meets the requirements of subdivision (e). Tier II and III Hexavalent Chromium Tanks must be within a building enclosure that meets the requirements of subdivision (e).

2-10 Response: Please see Response to Comment 1-11. The triggers for installation of a Permanent Total Enclosure (PTE) have been modified to require a PTE if

an owner or operator fails to shut down a Tier II or III Hexavalent Chromium Tank upon failing a smoke or slot velocity test, instead of requiring a PTE if an owner or operator fails a smoke or slot velocity test.

2-11 Response: Source testing requirements have been modified since this comment was received. PAR 1469 has been changed to require a subsequent source test after the initial source~~s~~ test every 60 months (five years) for facilities with permitted throughput of more than 1,000,000 amp-hrs/yr and every 84 months (seven years) for facilities with permitted throughput of less than 1,000,000 amp-hrs/yr. PAR 1469 requires an emission screening test after an initial sources test within 60 to 84 months if all capture efficiency tests conducted by the owner or operator within 48 months did not require a tank to be shut down and all applicable inspection and maintenance requirements (specified in Appendix 4) were conducted.

2-12 Response: Subdivision (m) ~~defines the requirements for~~provides that after a failing slot velocity measurement ~~where~~ the tank must be immediately shut down, rather than the air pollution control (APC) system. Under the current proposal, other tanks served by the same APC system that have acceptable velocity measurements are still allowed to operate. Staff received comments that the deviation of +/-10% from the most recently approved of slot velocity and push manifold pressure was too stringent. A 10% deviation is the long-standing margin of error that SCAQMD's Source Test Engineering division assigns to test evaluations. ~~The requirement was reviewed and revised based on the Industrial Ventilation Guidelines of 2,000 fpm. There are no equivalent standards for push manifold pressure so the shutdown pressure remains.~~ Staff acknowledges that there are many factors that could alter the capture test results. However, the capture test is required every 180 days. Prior to this test, PAR 1469 requires the owner or operator to maintain control efficiency and monitor operating parameters. Issues can be identified and addressed by the owner or operator prior to necessitating a shutdown of the tank. While PAR 1469 would require a shutdown of the tank that is being controlled by an add-on air pollution control device, it would not require construction of a PTE. Construction of a PTE is based on whether an owner or operator of a facility failed to shut down a tank that had a failing measurement.

2-13 Response: Rule 430 does not apply to any Regulation XIV rules. Therefore, the notification requirements in PAR 1469 are not redundant and subparagraph (p)(4)(A) is necessary. Since the comment was submitted, the 1-hour timing to report a failed smoke test, failed source test, exceedance of a permitted ampere-hour limit, or malfunction of a non-resettable ampere-hour meter, while consistent with the 1-hour requirement to notify SCAQMD of a breakdown under Rule 430, has been extended to four hours.

2-14 Response: The referenced subparagraph has been removed from PAR 1469.

2-15 Response: The requirement under paragraphs (o)(4) and (m)(2) to record the surface tension daily for 20 operating days is an existing requirement. It is not the intent of this provision to restart the 20-day requirement for daily surface tension measurement as a result of the proposed rule amendment. The requirement to measure surface tension every third operating day, increased from weekly measurements, is due to the faster degradation of non-PFOS-containing chemical fume suppressants that can result in hexavalent chromium emissions.

2-16 Response: Please see Response to Comment 1-9.

2-17 Response: Please see Response to Comment 1-10.

2-18 Response: A barrier separating the compressed air cleaning or drying operation within 15 feet of Tier II and Tier III Tanks provides appropriate control to prevent fugitive emissions associated with compressed air cleaning or drying operations from becoming airborne due to drafts within a building enclosure. A tank wall may function as a barrier as long as parts are compressed air cleaned or dried below the lip of the tank. A barrier is not necessary for compressed air cleaning within a PTE.

2-19 Response: Under PAR 1469, only rinse tanks having a hexavalent chromium concentration of 1,000 ppm or greater are considered Tier I Tanks and are subject to housekeeping requirements. Rinse tanks with a hexavalent chromium concentration less than 1,000 ppm do not have any requirements. Please also see Response to Comment 14-2.

2-20 Response: The comment refers to Tier II Tanks. Most of these tanks are now considered Tier III Tanks, with an intermediate designation of Tier II for tanks that meet the definition of paragraph (c)(58). Since receipt of this comment letter, SCAQMD staff has conducted additional samples and testing of hexavalent chromium tanks. Based on test data from a number of Tier I, Tier II and Tier III Hexavalent Chromium Tanks, it is evident that add-on air pollution controls are necessary for control of emissions from Tier III Tanks. The ~~levels defining~~definition of Tier III Tanks, including temperature range and hexavalent chromium concentration, have been discussed at several Working Group meetings.

Wayne Nastri
Executive Officer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

October 25, 2017

Dear Mr. Nastri,

Our organizations are very concerned about the lack of protections for communities in the proposed chrome plater rule which South Coast is planning on issuing in a few months. The rule has been significantly weakened since it was first proposed, abandoning ambient monitoring provisions, scaling back the use of HEPA filters, and removing the requirements for total enclosure with negative air. To say we are disappointed is an understatement. 3-1

Chrome platers emitting hexavalent chromium into our communities have been very problematic in the South Coast Basin for a long time. Many of our organizations worked on the existing state rule in 2006 and the subsequent local rules in South Coast. We pushed hard for the best protections available then, and to have more stringent requirement for platers located next to schools and sensitive receptors. It is apparent to us now that many facilities just did not comply with the rules and some sources went completely unregulated altogether. From the plater next to Suva School, to Master Plating, to the platers in Paramount and Compton now, the devastating public health effects to communities hosting these plating operations are an endemic part of the terrible history of environmental injustice in the South Coast region. 3-2

Chrome platers are concentrated in the Los Angeles area. No one really knows how many of these facilities exist, not even your own staff, but over 10% of all the chrome platers in the nation call the South Coast air basin their home. New facilities operating without permits are discovered often. These platers, already concentrated in our air basin, are further concentrated in low-income communities of color where enforcement is lax and regulators commonly turn a blind eye to complaints about odors and emissions. The communities of Paramount, Compton, and parts of East Los Angeles all have concentrated pockets of platers. 3-3

This concentration of chrome platers in communities is further exacerbated by other sources of hexavalent chromium emissions such as forgers and metal heat treaters, and potentially other sources not yet identified. Since there are so few air monitors in the basin which detect hexavalent chromium, it would be simply blind luck if a monitor were to be placed in one of these areas of concentration. Ironically, it was the air monitor placed to measure the emissions from Carlton Forge which inadvertently identified the platers in Paramount as an hexavalent chromium air pollution hot spot. 3-4

Each and every source of hexavalent chromium is contributing to the emissions which are endangering our communities. Each and every source needs to take on the responsibility to cease to emit this highly toxic chemical into our homes, schools, play yards, community centers, 3-5

and churches. Our communities should not bear the burden for these emissions with their health and well-being. 3-5 (cont'd)

When the original rule making on chrome platers started earlier this year it envisioned robust monitoring and rigorous air pollution controls for platers. However, pressure from the plating industry has your agency back-tracking on those measures. Without the monitoring, robust pollution controls, and total enclosure of all the industrial processes emitting these dangerous emissions we are no longer confident that this regulatory effort will protect our communities. 3-6

We urge you and your staff to consider the damage to public health which releases of hexavalent chromium are known to cause in the communities hosting these hexavalent chromium sources. We also urge you to think about the environment which the workers at these facilities are laboring in; these hexavalent chromium emissions are dangerous to all who work in this industry. We need the agency to insure that these facilities are made to completely capture these dangerous emissions, and to have the necessary monitoring sufficient to ensure compliance with the rules. 3-7

The European Union has just passed a regulation which will end the use of chromium for decorative purposes; we urge the South Coast AQMD to consider such as action as well. South Coast has taken similar actions before on dry cleaning facilities to ban chemicals which were damaging air quality and we urge you to consider to doing this for chromium as well. 3-8

If our experiences in the communities we represent teach us anything, we have learned that we cannot rely on anything but robust monitoring and a strong enforcement presence to ensure that these facilities are being operated properly and that our communities get the protections they deserve from their government. We urge you to work with us to create a rule which will ensure that families, teachers, workers, parishioners, and community residents are safe from hexavalent chromium in their communities. 3-9

Respectively,
Action Now
Mitzi Shpak
Executive Director
Altadena, CA

American Legion Post 6
Pastor Anthony Quezada
1927 E. Plymouth St.
Long Beach, CA

Apostolic Faith Center
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Maria Florio
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East Yard Communities for Environmental Justice
Mark Lopez
Executive Director
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EMERGE
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Maywood Youth Soccer Association
Luis Orizaba
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Mothers of East Los Angeles
Teresa Marquez
President
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Mujeres Pro Maywood
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Yvette Lopez-Ledesma
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Philippine Action Group for the Environment
Fe Koons
President
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Physicians for Social Responsibility – LA
Martha Dina Arguello
Director
Los Angeles, CA

Randall Enterprises, Inc.
David Randall
President
Sherman Oaks, CA

Resurrection Catholic Church
Monsignor John Moretta
Pastor
Los Angeles, CA

San Pedro & Peninsula Homeowners Coalition
Dr. John G. Miller, MD
President
San Pedro, CA

Society for Positive Action
Shabaka Heru
President
Los Angeles, CA

St. Philomena Social Justice Ministry
Modesta Pulido
Chairperson
Carson, CA

Watts Labor Community Action Committee
Timothy Watkins
President/CEO
Los Angeles, CA

Wilmington Improvement Network
Anabell Romero Chavez
Board Member
Wilmington, CA

Responses to Environmental Multi-Agency Comment Letter (34 commenters, Action Now et.al.), submitted 10/25/17

3-1 Response: PAR 1469 reduces emissions of hexavalent chromium and offers protection to the communities surrounding the affected facilities. PAR 1469 incorporates the requirements of the U.S. EPA chrome NESHAP *(Chromium Electroplating: National Emission Standards for Hazardous Air Pollutants)*, as well as the California Air Resources Board (CARB) Airborne Toxics Control Measure (ATCM) for chrome plating and anodizing *(Airborne Toxic Control Measure for Chromium Plating and Chromic Acid Anodizing Facilities)*. In addition, PAR 1469 requires control of additional process tanks not controlled by the NESHAP or CARB ATCM.

Early discussions regarding ambient monitoring and permanent total enclosures (PTE) under negative pressure vented to HEPA filters were discussed at Working Group Meetings, however, no provisions were included in PAR 1469. PAR 1469 does include a conditional provision for installation of a PTE for facilities that either ~~fail~~ conduct multiple non-passing source tests or fail to shut down a tank after failing a smoke or slot velocity test. See subdivision (t) of PAR 1469 for more information regarding triggers for installation of a PTE. Please also see Response to Comment 1-11.

PAR 1469 incorporates provisions to reduce migration of fugitive hexavalent chromium emissions outside of a building enclosure, including: closing roof openings within 15 feet of a Tier II or Tier III Tank; closing of enclosure openings located on opposite sides of a building enclosure; and closing of enclosure openings on sides of a building enclosure that face a nearby school or sensitive receptor. Please also see Response to Comment 9-1.

Although ambient monitoring provisions are not included in PAR 1469, a separate rule for ambient monitoring is planned. Please also see Response to Comment 1-7.

3-2 Response: The U.S. EPA NESHAP, CARB ATCM, and Rule 1469 only addresses chromium emissions from plating and anodizing tanks. Ambient monitoring and emissions testing conducted by SCAQMD staff revealed significant sources of hexavalent chromium emissions from certain non-plating tanks that were sparged (air-agitated), electrolytic, or operated at elevated temperatures. Control of these tanks, considered Tier II and Tier III Tanks is required under PAR 1469. Staff inspects chrome plating and chromic acid anodizing facilities and enforces air quality rules. Please also see Response to Comment 3-3.

In addition to addressing emissions from individual tanks at plating and anodizing facilities, PAR 1469 will reduce fugitive emissions of hexavalent chromium through best management practices, requiring a building enclosure for operations, limiting enclosure openings and specifying operational factors to limit cross drafts through a building enclosure. A PTE that is vented to air pollution control equipment meeting a high level of control, is required in certain situations.

3-3 Response: Staff has an accurate count of all plating and anodizing facilities that have permits with the SCAQMD and are subject to Rule 1469. As discussed in Chapter 1, staff conducted numerous searches to identify facilities that would be ~~applicable~~ subject to PAR 1469. Staff conducted internet searches, verified lists of companies provided by stakeholders, and reviewed the SCAQMD's permit database for any potential PAR 1469 facilities.

SCAQMD regulates all facilities within its jurisdiction consistently across communities and SCAMD staff conducts inspections at all facilities with SCAQMD permits. Facilities regulated under Rule 1469 are subject to quarterly inspections, where inspections are conducted consistently facility to facility regardless of their location. SCAQMD staff routinely respond to complaints about odors and emissions received from the public.

3-4 Response: SCAQMD has existing rules that currently address many source categories of hexavalent chromium emissions, including from chrome plating and anodizing operations (Rule 1469 - *Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations*); from grinding operations at metal forging facilities, (Rule 1430 - *Control of Emissions from Metal Grinding Operations at Metal Forging Facilities*); from cooling towers (Rule 1404 - *Hexavalent Chromium Emissions from Cooling Towers*); from spraying of coatings containing chromium (Rule 1469.1 - *Spraying Operations Using Coatings Containing Chromium)* and from metal finishing operations (Rule 1426 - *Emissions from Metal Finishing Operations*). In addition to existing rules for the source categories described above, SCAQMD has also proposed rules to address hexavalent chromium emissions from metal melting operations (PR 1407 - *Control of Emissions of Arsenic, Cadmium and Nickel from Non-Ferrous Metal Melting Operations*); from heat treating (PR 1435 - *Control of Emissions from Metal Heat Treating Processes*) and from laser cutting of metals (PR 1445 - *Control of Toxic Emissions from Laser Arc Cutting*). PAR 1469 will reduce emissions of hexavalent chromium from fugitive sources, through housekeeping practices and by requiring building enclosures, as well as from point sources. Other SCAQMD rules described above also include requirements to reduce metal air toxic emissions.

Under the SCAQMD Community Air Toxics Initiative, SCAQMD will systematically identify and prioritize high-risk facilities, then use the latest air monitoring technology to confirm specific sources causing high emissions. If ~~identified~~necessary, SCAQMD will seek Orders for Abatement from the independent SCAQMD Hearing Board to require these facilities to reduce their emissions to a level that does not pose an immediate threat to public health.

Air monitoring in the Compton area has begun ~~in order~~ to launch this initiative. Efforts there will initially focus on chromium plating and anodizing plants. In addition, the SCAQMD has received a series of metallic odor complaints from community members in Paramount. In response, staff began conducting investigations into local sources of emissions.

3-5 Response: Please see Response to Comment 3-4.

3-6 Response: Please see Response to Comment 3-1

3-7 Response: Please see Response to Comment 3-1. Regarding your comments on the environment in which the workers at these facilities labor, and that hexavalent chromium emissions are dangerous to all who work in this industry; after consultation with CAL-OSHA, SCAMQD staff verified that there is no conflict between the requirements of PAR 1469 and the requirements of CAL-OSHA, the agency responsible for indoor air quality at industrial facilities. Implementation of PAR 1469 to install air pollution controls for Tier III Hexavalent Chromium Tanks is expected to also improve the work environment as these thanks will be ventilated to pollution controls rather than emitting within the building exposing workers to high levels of hexavalent chromium emissions.

3-8 Response: The European Union (EU) REACH program allows Authorisations (i.e. exemptions) for up to 12 year review periods to identify alternatives. In addition, the EU may allow additional time to identify and implement alternatives after the initial review period, depending on the outcome of the initial review period. Authorisations have been granted for chromic acid anodizing and hard and decorative plating operations. Authorisations have been granted for the appearance and color of plated products. It should be noted that EU Authorisations are very broad, and can include both upstream and downstream users within a single Authorisation. The EU defines "functional decorative plating", which is very broad and includes architectural, automotive, and metal manufacturing, a definition which includes decorative plating as commonly recognized in the United States.

Please also see Response to Comment 9-2.

3-9 Response: Please see Responses to Comments 3-1 and 3-3.

PROMOTING EH&S COMPLIANCE BY ACHIEVING
IMPROVED COMMUNICATION BETWEEN INDUSTRY AND GOVERNMENT

November 8, 2017

Mr. Eugene Kang
Program Supervisor
Planning, Rule Development and Area Sources
South Coast Air Quality Management District
21865 Copley Drive Diamond Bar, CA 91765
Phone: (909) 396-3524

Subject: Proposed Amended Rule 1469 Comments

Dear Mr. Kang,

The Industrial Environmental Coalition of Orange County (IEC/OC) appreciates the opportunity to provide comments to the South Coast Air Quality Management District (SCAQMD) on Proposed Amended Rule (PAR) 1469, Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations. The IEC/OC represents diverse industrial businesses in Orange County, including aerospace companies, metal processing facilities, pharmaceutical companies, general manufacturing, and public utilities. Our mission is to facilitate communication between industry and government agencies on environmental issues impacting our member's business operations.

In pursuing rule developments and other actions, the IEC/OC requests that SCAQMD consider reasonable, fair, and cost-effective emission control requirements that will properly achieve the health protection goals of the SCAQMD's Air Toxic Initiative.

In general, IEC/OC's finding on PAR 1469 is that certain conditions and requirements included in the draft rule language may not be feasible considering current operating parameters of existing tanks and tank lines. Implementation of PAR 1469 in its current form would render certain tank lines at existing facilities inoperable, and could force businesses out of the district. The requirements of PAR 1469 should be revised to account for difficulties associated with modifying existing operations. 4-1

IEC/OC has the following specific comments on PAR 1469:

1. **Comment 1 – The Requirements for freeboard height contained in Section (d)(4) of the draft rule language are not feasible at existing facilities.** The current industry standard is a freeboard height of four inches for electroplating, and many existing facilities have automated tank lines that have a uniform freeboard height of four inches. Changing the freeboard height of one tank in an existing line to eight inches would render these automated lines inoperable. Automated lines are difficult to physically modify for reasons including, over-head clearance limitations, existing rack size and configuration, and strict process specifications that are set and audited by defense and commercial aircraft customers. In addition, parts loaded into the rack of an automated line will not be fully submerged if the liquid level of one tank were to be lowered. This would result in failure to meet established performance standards. IEC/OC suggests that the eight-inch freeboard height requirement be changed from modified and new Tier II tanks to new standalone tanks or new tank lines, only. The requirement for freeboard height of eight inches should not apply to existing process lines. 4-2

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EMAIL: INFO.IECOC@GMAIL.COM WWW.IECOC.NET

2. **Comment 2 – The compliance dates for permit application submittal do not allow enough time to adequately assess options and prepare an application for successful modifications.** The draft rule language establishes compliance time limits for permit application submittal of 180 to 365 days. Additional time is needed to properly plan, design, and apply for significant process changes, such as add-on control devices. Six months is inadequate to develop a strategy, confirm that control device operating parameters, such as capture air velocity and pressure drop across various control processes, will meet the requirements of the new rule, and confirm the newly designed process will continue to meet customer specifications. To ensure process modifications and/or add-on control technologies achieve long-term success, adequate time should be allowed for research, planning, design, and application preparation. IEC/OC suggests a compliance date of two years after the date of adoption for permit application submittal. 4-3

3. **Comment 3 – The definition of a Tier II Tank was established using insufficient data.** Page 1-22 of the Preliminary Draft Staff Report states, "Further testing will be conducted to determine whether there are significant increases in emissions in the range of temperatures between 140 and 170 degrees Fahrenheit." Despite this statement and the lack of supporting evidence, the current definition of a Tier II tank includes 140 degrees as the temperature threshold, and a Public Workshop was held for the PAR. Further progress on PAR 1469 should be delayed until adequate data regarding key quantitative definitions are obtained. 4-4

The IEC/OC supports an open dialogue on SCAQMD's Air Toxics Initiative, PAR 1420, and other actions, to effect beneficial rule developments. If you have any questions, please do not hesitate to contact me at (562) 495-5777.

Sincerely,

Chris Waller

IEC/OC Air Regulations Sub-Committee Chair

Mission Statement: Our goal is to provide a forum for Orange County businesses to remain current on emerging issues and to exchange views with environmental and safety agencies in an open and informal setting.

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Responses to Comment Letter from Industrial Environmental Coalition Orange County (submitted 11/8/17)

4-1 Response: The economic impacts resulting from compliance with PAR 1469 are analyzed in the Socioeconomic Impact Assessment.

4-2 Response: The requirements for freeboard height have been removed from PAR 1469. Continuing with SCAQMD's current permitting practice, the freeboard heights of individual tanks will be determined during the permit evaluation process.

4-3 Response: The proposed requirements for permit application submittals relating to controls on Tier III Tanks are 180 days, 365 days, and 545 days after rule adoption for chromic acid anodizing, hard chrome plating, and decorative chrome plating facilities, respectively. PAR 1469 allows sufficient time for preparation of a permit application that considers the required research, plan, and design for the air pollution control system. Once a complete permit application is received, the facility and SCAQMD permit engineering staff typically continue discussions to work out issues or design changes prior to issuance of a SCAQMD Permit to Construct.

4-4 Response: Please see Response to Comment 1-1.

From: Jim Meyer [mailto:jmeyer@aviation-repair.com]
Sent: Friday, November 10, 2017 11:43 AM
To: Eugene Kang <EKang@aqmd.gov>; Neil Fujiwara <nfujiwara@aqmd.gov>; Susan Nakamura <SNakamura@aqmd.gov>
Subject: PAR 1469 Comments

Please consider the following comments regarding the proposed rule 1469.

Please consider a modification to the rule requiring two doors at a facility not be open simultaneously. We think the rule could be reasonably modified (improved) by:

1. Allowing facilities which are not near sensitive receptors to have doors open. This provides a further incentive to locate facilities away from sensitive receptors. It should be a policy goal to create positive incentives for locating plating businesses away from sensitive receptors. By creating positive incentives, you can influence plating businesses to move away from schools.
2. Allowing the doors to be opened at facilities where plating tanks are more than 30 feet from a door.
3. Allowing facilities which generate less than 20 million amp hours annually to open the doors.
4. Allowing facilities to open doors when they are not actively plating.
5. Allow the doors to be opened if the facility has constructed baffles to block a cross-draft.

Our reasoning is as follows:

1. If and when it is windy, operators will voluntarily choose to close the doors because they do not want dust to contaminate their tanks.
2. If a business is not near a sensitive receptor, there is no bad consequence of opening the doors.
3. If plating tanks are not near doors, there is much less likelihood that opening doors would enable fugitive emissions. 30 feet is a reasonable distance.
4. Tanks vented to HEPA's which are able to pass smoke tests are not generating fugitive emissions.
5. Employee health should be considered in the rule making. Temperature and humidity can rise dramatically inside a plating facility on warm days. Heat is a health issue. It is inefficient to air condition the buildings because of the HEPA's. Opening doors is a reasonable method to assure employee safety.

The point is that the "doors" rule accomplishes very little at some facilities at a cost that is high in terms of employee health and safety.

5-1

We are also concerned that the section of the rule that "prohibits operations of any devices in any roof opening which pull air from the building enclosure to the outdoor air" is going to cause problems with previously permitted operations. We have a set of AQMD permitted tanks containing various stripping, etching, pre-treatment, and cleaning solutions (no chrome) which are vented through hoods to a blower and stack on our roof. These hooded tanks are near chrome plating tanks but the chrome tanks have pollution controls so there should not be a concern about fugitive emissions. We have been operating safely with the current setup for decades, without complaint, not near sensitive receptors. We cannot operate without the permitted tanks that vent to the roof. We do not know what you would require to solve the issue but it seems expensive. At a minimum, our line should be grandfathered and be allowed to change if necessary for work needs.

5-2

We use air sparging while plating and have always used air sparging. Sparging is essential to successfully plate the inner diameters of cylinders associated with landing gear systems, flight controls, and thrust reversers. These are flight critical aircraft components and the quality of the plating should not be sacrificed when the sparging mist is being captured by the HEPA system in any case. We plate at night with the doors closed and no one in the building, the HEPA system with push pull headers captures the sparging mist. Regarding the need to prove the need to sparge with a Mil-Spec, we would hope that SAE specs, or Specs from major OEMs would suffice for proof as we serve predominately the commercial aircraft industry. We do not know why suppliers that support the military would get advantaged in an area that has to do with flight safety. 5-3

It is un-necessary to increase the frequency of source tests. Our HEPA system has proved efficient for two decades with wide gaps between source tests. We actively maintain the system. Requiring additional frequent scrutiny of source controls that have already worked to cut emissions by 99% (per AQMD data) is un-necessary and massively expensive. It is hard to understand what the motivation is to change the frequency of source testing when the impetus for the rule change was generated at facilities without adequate source controls. Imposing this requirement will force industry consolidation resulting in fewer small businesses (with low amp hours) and more of the types of facilities where you are observing the issues. This additional testing seems counterproductive. We suggest this is an area you should consider source test frequency requirements as a function of proximity to sensitive receptors. Facilities which are not near sensitive receptors should need fewer source tests than facilities near sensitive receptors. This is another area of the rule where you can create a positive incentive to locate away from sensitive receptors. 5-4

The attempt to regulate grinding in the rule is inconsistent because it applies only to rule 1469 facilities. Most grinding is not conducted in rule 1469 facilities. Is it intended to apply to both "wet" grinding and "dry" grinding? Would the rule apply to grinding conducted in a separate building on the same property? 5-5

The AQMD has explained in each meeting that the reason for updating the rule is due to conditions observed at ANODIZING facilities and HEAT TREATING facilities. We do not perform anodizing nor do we perform heat treating and yet we find that nearly every proposed rule change will increase our regulatory burden and expense.

We have operated within the regulations and without public complaints for over a decade in this location. AQMD rule making should take into account that small facilities which are located in heavy industrial zones that are not near sensitive receptors and that do have state of the art pollution control systems (HEPA) should not be excessively burdened by a rule change like this. The need for rule change was driven by different types of businesses in a different type of location and the rule changes should have been focused on the differences which caused the problems in those locations. There is nothing wrong with the existing frequency of source tests. There is nothing wrong with air sparging in HEPA controlled tanks. Opening doors for employee comfort in a heavy industrial zone is reasonable considering the major cancer risks in those zones are not Hex Chrome. The pollution controls we have invested in have proven valuable to society in the LA Basin. Threatening the health of employees (door rule), decreasing plating quality (sparging), and adding burden (source test frequency) to compliant small businesses will only result in negative impacts on Southern California. 5-6

We would appreciate your acknowledgement of receiving these comments and your consideration of implementing these thoughts in the final rule.

Jim Meyer
Aviation Repair Solutions, Inc.
1480 Canal Ave
Long Beach, Ca. 90813
562-437-2825

Responses to Comment Letter from Aviation Repair (submitted 11/17/17)

5-1 Response: Allowing facilities that are not near sensitive receptors to have doors open does not address concerns for fugitive dust potentially containing hexavalent chromium settling outside the buildings on other land uses accessible to the public that are not defined as a sensitive receptor, such worker receptors in industrial zones. Ambient monitors have shown that closing a door to eliminate cross-draft can reduce the ambient concentration of hexavalent chromium by more than 75 percent. The commenter also states that some facilities may voluntarily choose to close doors if it is windy in order to avoid dust contaminating tanks, however, other facilities may choose to keep them open, absent a requirement to close them. In place of a closed door, PAR 1469 allows for other methods for minimizing cross-drafts, including the use of overlapping plastic strip curtains, vestibules, airlock systems, and other methods that an owner or operator can demonstrate is an equivalent or more effective method to minimize movement of air within a building enclosure. Tanks vented to HEPA filters which are able to pass smoke tests are allowed to demonstrate that point source emissions are being captured from a tank at the time of the test, but this test is only required once every 180 days and the system can become fouled before the next test is conducted. Requirements for closing doors will provide additional assurance that potential process fugitives from these situations are not escaping the building enclosure between smoke tests. Since facilities with over 500,000 amp-hours annually are already recognized by Rule 1469 and the CARB ATCM for chrome plating as a high throughput facility, it is not reasonable to exempt facilities that generate less than 20 million amp-hours annually.

Regarding considerations for employee health, PAR 1469 includes a provision that allows facilities to implement alternative requirements to closing doors and other building enclosure provisions if PAR 1469 conflicts with OSHA, CAL-OSHA or local municipal code requirements for worker safety.

5-2 Response: PAR 1469 requires closure of all enclosure openings in the roof that are located within 15 feet from the edge of any Tier II or Tier III Tank, except enclosure openings in the roof that are used to allow access for equipment or parts, or provide intake air or circulation air for a building enclosure that does not create air velocities that impact the collection efficiency of a ventilation system for an add-on air pollution control device. Powered devices in the roof opening that are located within this distance can continue to operate if the air is vented to HEPA filters. Provisions for openings in a roof have been modified throughout the rulemaking process. Please refer to paragraph (e)(3) for more information.

5-3 Response: The prohibition on air sparging that was a part of the first proposal for PAR 1469 has been removed.

5-4 Response: Rule 1469 currently requires a one-time source test for the life of the air pollution control device. Periodic source testing is necessary to quantitatively confirm that hexavalent chromium emissions measured at the stack of the control device are in compliance with emission rate limits of the rule. Consequently, PAR 1469 includes a periodic source testing requirement. Staff acknowledges the cost of these source tests so PAR 1469 allows existing controlled tanks to use a source test that meets specific criteria and conducted after January 1, 2009 to comply with the initial source test requirement of PAR 1469. Other reductions to source testing costs include allowing emissions screening tests (source test consisting of one run) versus triplicate tests for source tests conducted after the initial source test. Facilities that operate in full compliance with specific requirements for qualitative and quantitative assessments of control equipment will also ~~be allowed to move to~~have a once every five years testing schedule for facilities with permitted throughput of more than 1,000,000 amp-hrs/yr and once every seven years for facilities with permitted throughput of less than 1,000,000 amp-hrs/yr, so long as they remain compliant with said requirements. By only requiring periodic source testing for facilities that are located near sensitive receptors, stack emissions can settle ~~out~~ on other land uses accessible to the public that are not defined as a sensitive receptor, in addition to worker receptors in industrial zones.

5-5 Response: Both Rule 1469 and the CARB ATCM for chrome plating currently include requirements for grinding operations conducted at chrome plating and anodizing facilities. Regarding grinding operations, existing provisions require that a physical barrier separates grinding areas within a facility from the hexavalent chromium electroplating or anodizing operation. Grinding conducted in a separate building on the same property of a Rule 1469 facility would still be subject to grinding requirements of the rule, however, having this grinding area located in a separate building would comply with the existing requirement for installation of a physical barrier. PAR 1469 adds an exemption to grinding requirements of the rule if the grinding is conducted under a continuous flood of metal removal fluid.

5-6 Response: Please see Responses to Comments 5-1 through 5-5. The impetus for development of PAR 1469 includes the discovery of tanks that were previously unknown to be a source of hexavalent chromium emissions and cross-drafts ~~conditions~~ in buildings that house both chrome plating and chromic acid anodizing operations. Observations made during site visits conducted by staff include building conditions that resulted in the escape of fugitive dust at all types of chrome plating facilities and not just chromic acid anodizing facilities.

MFASC
METAL FINISHING ASSOCIATION OF SOUTHERN CALIFORNIA, INC.

November XX, 2017 **DRAFT**

Mr. Wayne Nastri
Executive Officer
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, California 91765

Re: Comments from Metal Finishers Association - Proposed Amended Rule 1469 and Preliminary Draft Staff Report, Working Group Meeting #7

Dear Mr. Nastri:

The Metal Finishers Association ("MFA") represents over 130 companies throughout Northern and Southern California, which comprise a diverse industrial base of metal finishing and related businesses that employ thousands of workers. Its members provide necessary products and services to manufacturers in various other industries, including, automotive, consumer products, industrial, energy, aerospace and numerous others. In particular, a large segment of our membership provide mission critical parts and components for military aircraft, satellites, telecommunications, defense and the like. In addition, well over 90% of the MFA membership meet the federal definition of Small Business with fewer than 150 employees, and are typically private family businesses or otherwise small closely held companies.

Representatives of the MFA, including legal counsel and technical experts, have been actively engaged with AQMD staff since the beginning of the recent rulemaking process earlier this year. MFA members and its representatives have also attended all seven (7) public working group meetings, including, the most recent meeting held on October 26, 2017 (referred to as "Working Group Meeting #7"), plus participated in numerous other meetings with the AQMD's legal counsel, economic experts and rule development staff. In addition, the MFA and its representatives attended and testified at the Public Hearing on this rule development which was held on November 1, 2017. This comment letter addresses the issues raised at the Working Group Meeting #7, recent public hearing, PAR 1469 rule language and Preliminary Draft Staff Report.

1.0 PRELIMINARY DRAFT STAFF REPORT

While the MFA reserves the right to modify or supplement these comments based on subsequent AQMD presentations, at this time, the following summarizes our primary concerns and comments for the Preliminary Draft Staff Report dated October 2017 (Staff Report):

(1) Chrome Tank Test Data – The Staff Report presents the collected emission test data from the various metal finishing facilities as being supportive of the rule amendments (Page 1-14 to 1-17). As we have noted on numerous occasions, the MFA remains concerned that major rulemaking and policy decisions are being based on inconsistent data and little scientific support, especially when it concerns a potential requirement of add-on control devices and other costly measures for currently unregulated tanks. 6-1

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As a general matter, the Staff Report fails to qualify these field test data as being extremely limited for purposes of this rule development, but instead, presents the data as complete and scientifically supported which is misleading. For example, PAR 1469 defines a Tier I tank with hexavalent chrome content of 1,000 ppm, however there is insufficient field data indicating there are any significant emissions at such a low threshold. Quite the contrary, there were only 2 or 3 emissions data points collected for unregulated tanks between 32,000 and 60,000 ppm hexavalent chromium, and yet a far lower limit of 1,000 ppm is being proposed as the Tier I applicability threshold. As another example, PAR 1469 defines a Tier II tank as a Tier I tank with an operating temperature exceeding 140° F; however, there is virtually no tank temperature data collected for tanks operating below 190° F with the exception of one tank at 170° F which was not a chrome tank, but rather a nickel acetate seal tank. As a consequence, there is no data whatsoever that supports an operating temperature of 140° F as being significant factor of fugitive hexavalent chrome emissions from applicable tanks, and yet, this temperature level was established as the Tier II applicability threshold. These are only a couple examples of the "cart being in front of the horse" when it comes to this particular rule development. From the beginning, the MFA has been concerned that this rule development (and associated enforcement activities) have largely been an exercise to selectively find evidence that supports a certain theory rather than objectively gathering data in a scientific manner and drawing appropriate conclusions. Due to these concerns and others, the proposed rule has the potential to be tremendously burdensome for industry while having little to no significant effect on emissions.

6-1 (cont'd)

(2) Fugitive Emissions – While the emissions test data from unregulated tanks has been very limited, there has also been insufficient demonstration that fugitives from such tanks are being significantly exhausted from buildings, nor that add-on control devices are necessarily required for such tanks. Under existing Rule 1469, the applicable emission limits for existing chromium electroplating and chromic acid anodizing tanks is 1,500 ng/amp-hr, which is typically measured after add-on control devices such as High Efficiency Particulate Air (HEPA) systems. These add-on control devices are generally mounted on rooftops through a single exhaust stack with forced ventilation. Rather than relying on assumptions, AQMD needs to base its regulatory policy and rulemaking on validated scientific data that demonstrates significant fugitive emissions are actually being discharged from buildings through roof vents, doors, windows and other openings. Thus far, any substantial scientific data making such demonstration for fugitive emissions is lacking. Quite the contrary, based on statements from the AQMD source testing staff during the working group meetings, it appears that measured fugitive emissions through rooftop vents from unregulated tanks are far below any measurements at the tank surface by several orders of magnitude, even without any add-on control devices. Based on the data gathered thus far, the fugitive emissions from the unregulated sources exiting the building would be considerably less than the emissions from the existing permitted sources. Accordingly, the elimination of all fugitive emissions from metal finishing operations would do little, if anything, to reduce ambient air concentrations of hexavalent chromium, particularly considering that metal finishing emissions of hexavalent chromium represent less than one percent of the total hexavalent chromium emissions according to the U.S. EPA National Emissions Inventory.

6-2

(3) Ambient Monitoring Near Metal Finishers – The Staff Report presents the ambient monitoring data of hexavalent chromium around five (5) metal finishers in the cities of Newport Beach, Paramount, Long Beach and Compton (Page 1-8 to 1-10). Air toxics enforcement actions against these facilities have referenced a hexavalent chromium concentration of 1 ng/m^3 as a fence line (or near fence line) threshold for enforcement purposes. For the facilities in Newport Beach and Paramount, the Staff Report indicates average high ambient readings for hexavalent chromium of 3.5 to 11.0 ng/m^3, which were subsequently reduced to 0.25 to 0.40 ng/m^3. The Staff Report indicates the Long Beach facility had average hexavalent chrome readings from 0.4 to 0.9 ng/m^3, which are below the enforcement threshold of 1 ng/m^3. As we have noted on numerous occasions, the MFA continues to remain concerned about the use

6-3

of ambient air monitoring (and fence line limits) for rulemaking and enforcement purposes, and have raised legitimate issues of flawed assumptions, unreliable data, contributing sources, prohibitive costs and inconclusive results. Nevertheless, the AQMD continues to selectively utilize such unreliable ambient monitoring data to unfairly target metal finishers, and support its enforcement and rulemaking efforts. Moreover, the AQMD continues to rely upon an unsubstantiated 1 ng/m^3 hex chrome standard that is not supported by the current science for enforcement purposes, including, orders for facility shut down and business curtailment. Based on testimony of affected small businesses, it is clear the AQMD's continued use of such unreliable air monitoring data is having significant adverse economic impacts, including, loss of customers, decreased business volumes and employee layoffs. 6-3 (cont'd)

2.0 PROPOSED RULE AMENDMENTS

The AQMD presented proposed rule language dated October 20, 2017, which included rule applicability, definitions, general requirements, housekeeping and best management practices (BMPs). While the MFA reserves the right to modify or supplement these comments based on subsequent AQMD presentations, the following summarizes our primary comments at this time:

(1) Rule Applicability - As explained by AQMD staff, PAR 1469 would apply to chromium electroplating, chromic acid anodizing tanks and associated chrome tanks. Based on our understanding, those facilities which do not operate chromium electroplating or chromic acid anodizing tanks would not be subject to PAR 1469, although they may operate tanks with chromium for other purposes. In addition, those tanks which are not associated with chrome plating or chrome anodizing would also not be subject to PAR 1469. If our understanding is correct, this rule applicability for PAR 1469 is consistent with existing Rule 1469 regarding applicable tanks, so the MFA has no further comment. 6-4

(2) Definition of "Building Enclosure"- The MFA requests that PAR 1469 (c)(11) is changed as follows, which removes rule ambiguity and minimizes wide interpretation by AQMD enforcement officers for possible issuance NOVs: "BUILDING ENCLOSURE means a permanent building, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off), with limited openings to allow access for people, vehicles, equipment, or parts. ~~that is free of breaks, cracks, or gaps, or deterioration that could cause or result in fugitive emissions~~." 6-5

(3) Definition of "Modification" - As previously noted, the MFA is concerned that efforts by regulated facilities to comply with rule requirements may be construed as a "modification" or otherwise trigger permit actions and New Source Review (NSR). A few examples of BMPs, housekeeping and other control measures under PAR 1469 which may trigger NSR are (a) relocating tanks farther away from roof vents, (b) installing covers to existing tanks, (c) adding polyballs or other mechanical fume suppression, (d) replacing air sparging with mechanical agitation; (e) installing or upgrading pressure gauges, flowmeters or other required monitoring devices; or (f) installing a total enclosure around existing tanks. Consequently, the MFA requests PAR 1469 (c)(40) is changed to include the following additional exclusions from the definition of "Modification": 6-6

> *". . . Routine maintenance and/or repair shall not be considered a physical change. A change in the method of operation of equipment, unless previously limited by an enforceable permit condition, shall not include:*
>
> *iv. The removal of air sparging as a method of agitation;*
> *v. The addition of mechanical agitation as a method of agitation;*
> *vi. The addition of polyballs or other mechanical fume suppression;*
> *vii. Installation of covers for applicable tanks;*

viii. The relocation of applicable tanks within a facility.
ix. Installing or upgrading pressure gauges, flowmeters or other required monitoring devices;
x. Installing a total enclosure around existing tanks;
xi. Installing heating, cooling or other rooftop ventilation equipment.

6-6 (cont'd)

(4) Tier I Hexavalent Chromium Tanks – PAR 1469 (c)(58) proposes a threshold of 1,000 ppm of hexavalent chromium content to qualify Tier I tanks. As we have noted, there is insufficient scientific support and test data that justifies such an extremely low concentration threshold for Tier I tanks. Tier I should only apply to those tanks which exhibit the highest potential for hexavalent chrome emissions, and therefore exclude all other tanks from regulatory applicability, such as, chromate conversion tanks, dye tanks, cleaner and de-smut tanks, etch, neutralization, passivation, dilute chromate seal and rinse tanks. Based on the limited test data presented by the AQMD, and since there is no minimum chrome concentration to qualify a Tier II tank, there needs to be a much higher hex chrome threshold for Tier I tanks. In this regard, the MFA proposes the following definition for Tier I tank:

6-7

PAR 1469 (c)(58) - TIER I HEXAVALENT CHROMIUM-CONTAINING TANK means a tank permitted as containing a hexavalent chromium concentration of 5,000 parts per million (ppm) or greater.

(5) Tier II Hexavalent Chromium Tanks – PAR 1469 (c)(59) proposes a Tier II tank applicability for a Tier I tank with: (a) minimum operating temperature of 140° F; (b) conducts air sparging; or (c) is electrolytic. The MFA is concerned that there is no minimum hex chrome concentration to qualify a Tier II tank. In addition, there is no scientific support nor test data that justifies 140° F temperature threshold for Tier II applicability, which is extremely low. Based on the Staff Report, the minimum temperature threshold for Tier II tank applicability should be **190° F,** which captures tanks operating near the boiling point of water. The temperature threshold of 140° F is not supported technically, scientifically or otherwise. Lastly, the MFA remains concerned about air sparging restrictions as well, which are discussed further below. In this regard, the MFA proposes the following definition for Tier II tank:

6-8

PAR 1469 (c)(59) - TIER II HEXAVALENT CHROMIUM-CONTAINING TANK means a TIER I HEXAVALENT CHROMIUM-CONTAINING TANK that meets the following criteria:

(A) Has an operating temperature above 190 degrees Fahrenheit; or
(B) Uses air sparging as an agitation method; or
(C) Is electrolytic.

(6) Prohibition of Air Sparging – PAR 1469 (d)(3) prohibits any a Tier II tank from air sparging as a method of agitation after 180 days of rule adoption, unless proof of a military specification is submitted within 30 days, and there is written approval from the Executive Officer. Since Tier II tanks are already subject to air pollution controls, source testing and emission limits, there is no justification to prohibit air sparging in such tanks. Further, metal finishers require the flexibility to meet changing market demands, prime contractor specifications and customer requirements at all times, whether military or other markets. The requirement of a military specification and written prior approval from the AQMD will handcuff many metal finishers from chasing new business, quoting potential jobs, satisfying existing customers and running their businesses. Moreover, seeking prior AQMD approval will certainly be a speculative and likely time consuming process. As a consequence, this prohibition creates substantial business risk with little environmental benefit, which should be removed from PAR 1469.

6-9

(7) Freeboard Height – PAR 1469 (d)(4) would require a minimum freeboard height of 8" for applicable Tier I and II tanks, which are newly installed (or modified) after the rule adoption date. The freeboard height requirement would not apply to existing tanks prior to rule adoption. As noted previously, the MFA opposes a freeboard height requirement for existing, new or modified applicable tanks, as it has not been demonstrated that a minimum freeboard height results in any meaningful emission reductions. In general, facility operators are already incentivized to maintain a tank freeboard to preserve product quality and minimize chemical losses. To manage a different freeboard height for different tanks would create significant compliance issues for facility operators while providing minimal environmental benefit. 6-10

(8) Building Enclosures – PAR 1469 (e)(1) through (e)(9) specifies numerous building enclosure requirements for both Tier I and Tier II tanks, which the MFA offers the following comments:

a) *Limitation on Building "Openings"* – As per PAR 1469(e)(1), the MFA opposes the 3% surface area limitation on the number of openings in building enclosures, such as doors, windows, roll up doors and others. Over the course of the prior 6 months of rule development and workshops, a specific surface area or other limitation on building openings has never been presented nor studied by the AQMD staff, and is not supported by any scientific or other evidence in the record. 6-11

b) *Closure of Openings within 100 feet of Sensitive Receptor* – As per PAR 1469(e)(2), the MFA requires additional flexibility in the requirement to close all building openings within 100 feet of a sensitive receptor, school or early education center. This requirement is vague as it may be interpreted to (a) include buildings without chrome tanks; (b) prohibit passive roof vents which are otherwise permissible; and (c) prohibit openings which could be closed with overlapping plastic strip curtains, vestibules, automated roll up doors or alternative means to minimize fugitives which are otherwise permissible under PAR 1469 (e)(3). The MFA requests additional clarity in this requirement, and the above flexibility as similar to PAR 1469 (e)(3). 6-12

c) *Close Roof Openings within 30 feet* – PAR 1469 (e)(4) requires the closure of all roof openings located within 30 feet above the edge of any Tier I or Tier II Tank. The MFA fails to see the purpose of this requirement, since Tier I tanks are not considered high emitting tanks under the rule, and Tier II tanks are required to have add-on controls. As a consequence, the MFA requests that this provision be removed. 6-13

d) *Prohibition on Rooftop Ventilation* – PAR 1469 (e)(5) prohibits any device in any roof opening that pulls air from building enclosures for Tier I and Tier II tanks. The MFA is concerned that such a broad prohibition on building ventilation will create uncomfortable, and likely unsafe, working conditions for employees within such enclosures. Moreover, as we have noted in prior working group meetings, the AQMD source test staff has indicated measured fugitive emissions through rooftop vents are far below any measurements at the tank surface by several orders of magnitude, even without any add-on control devices. Consequently, such a broad prohibition on rooftop ventilation for building enclosures are not warranted. 6-14

e) *Breaks, cracks, gaps and deterioration* – PAR 1469 (e)(6) and (7) specifies monthly inspections, and a 72 hour repair of "breaks, cracks, gaps and deterioration" of building enclosures. There is no clear definition of "breaks, cracks, gaps and deterioration" in the rule, and unlikely that a clear definition is possible. As a consequence, the MFA opposes these inspection and repair requirements, given the vagueness of "breaks, cracks, gaps and deterioration", and a high risk of wide interpretation by AQMD enforcement officers for issuance of NOVs. 6-15

(9) Source Testing - PAR 1469 (k)(3) will require initial compliance source test for all facilities within 120 days from rule adoption, and then every 36 months thereafter. Alternatively, an emissions screening of a single test run may be conducted every 36 months in lieu of a full source test. The MFA requests the following changes:

a) For existing facilities, the MFA believes one (1) year should be allowed for the initial compliance source test;

b) Any compliant source test within the last 5 years (September 1, 2012) may be used to demonstrate compliance with the initial compliance test;

c) If the facility already has a compliant source test on record with the SCAQMD beyond 5 years, the initial compliance test should be an emission screening; and

d) Emission screenings be conducted **every five (5) years** thereafter, not every 3 years.

6-16

(10) Capture Efficiency Testing – PAR 1469 (k)(6) specifies routine slot velocity and smoke testing for applicable tanks with add-on control devices every 6-months, respectively. In particular, PAR 1469 specifies that a facility must "shut down" all chrome electroplating and anodizing lines, if such capture tests show a deviation of +/- 10% from the most recently approved AQMD source test or emission screening. The MFA is very concerned of such stringent limitations and shut down requirement, given the numerous factors that could impact these capture test results, such as, equipment sensitivity, testing locations, personnel handling and others. 10% is a very small margin for error which would be difficult to ensure compliance, could result in unnecessary equipment shut downs, and lead to triggering the on-ramp for a Permanent Total Enclosure (PTE) pursuant to PAR 1469 (t).

6-17

(11) Permanent Total Enclosures (PTEs) – PAR 1469 (t) specifies a trigger for PTEs for Tier II tanks based on (a) failure of a source test within 48 months; or (b) more than one incident of failure of smoke and/or slot velocity measurements. If triggered, PAR 1469 requires permit applications for a PTE within 90 to 180 days, and construction of the PTE within 12 months. In general, the MFA does not believe that PTEs are necessary to control potential Tier II tanks, as we anticipate the use of buildings, housekeeping and BMPs would be sufficient control measures. As we have noted, the use of PTEs can also be very costly and difficult to implement, especially for facilities that were not originally designed nor constructed to accommodate PTEs for existing tank operations. Due to a small margin of failure and issues noted above for smoke and slot velocity testing requirements, it is too easy for a PTE to be triggered under the proposed rule. For all these reasons, the MFA requests that a PTE on-ramp requirement be removed from the proposed rule.

6-18

(12) Notification of Incidents – PAR 1469 (p)(4)(A) requires a regulated facility to notify the AQMD within "one hour" of any failed smoke test, failed source test, exceedance of a permitted ampere-hour limit or malfunction of a non-resettable ampere-hour meter. Further, PAR 1469 (p)(4)(B) requires corrective action and a written report within seven (7) days of notification. The MFA believes these proposed notification requirements are redundant, as existing AQMD Rule 430 already covers the reporting of such incidents that result in rule or permit violations.

6-19

(13) Parametric Monitoring – PAR 1469 (m)(1)(D) adds a new requirement that the operator "shall ensure any velocity within 10 feet" of a Tier II tank with an add-on control device is "less than one-tenth of the collection slot velocity as specified in the most recent successful source test." The MFA requests that this proposed requirement be removed as it is unclear what purpose it serves. Moreover, due

6-20

to its vagueness, the requirement would be subject to wide interpretation by AQMD enforcement and likely lead to NOVs. 6-20 (cont'd)

(14) Surface Tension Testing – PAR 1469 (o)(4)(D) proposes a "daily" surface tension test for 20 consecutive days, and then every 3rd day thereafter, provided there is no violation of surface tension requirements. As noted previously, the MFA opposes such rigorous testing frequency since the current requirement of weekly surface tension testing is sufficient to ensure compliance. Moreover, there is insufficient data which warrants a more frequent testing requirement. 6-21

(15) Housekeeping – The MFA supports housekeeping measures for applicable tanks under the amended rule with few exceptions. However, the MFA opposes daily cleaning of applicable tanks and operational areas, as currently proposed in PAR 1469 (f)(4), as this places an undue burden on metal finishers. The current cleaning requirement is once per week, which we believe is sufficient housekeeping for applicable operations. 6-22

(16) Water Spraying – The MFA supports Best Management Practices (BMPs) for applicable tanks under the amended rule with few exceptions. Regarding the proposed limitations on using water sprays as currently proposed in PAR 1469 (g)(2), the MFA does not believe such limitations are necessary. Given the water spray typically occurs over rinse tanks, and that neither the parts nor rinse tank will have significant amounts of chrome laden liquid. 6-23

(17) Compressed Air Cleaning or Drying – Regarding the proposed limitations on using compressed air cleaning or drying within 15 feet of a Tier I or Tier II tank as currently proposed in PAR 1469 (g)(7), the MFA does not believe such limitations are necessary. At this point in the process, any residual rinse water on finished parts will have negligible amounts of hexavalent chrome, if any. 6-24

(18) Add-on Control Devices for Tier II Tanks – PAR 1469 (h)(4) specifies add-on control devices for Tier II tanks, and proposes a hex chrome emission limit which is to be determined. As noted above, the MFA questions the need for add-on control devices for Tier II tanks, based on the limited and inconsistent emission data collected for chrome tanks and rooftop vents. Irrespective, if an emission limit will be adopted, the MFA opposes an emission limit for Tier II tanks that would be lower than the current hex chrome emission limits specified by Table 1, which are currently applicable to existing tanks. The current state of pollution control technology has not significantly changed since the prior amendments to Rule 1469, and therefore any lower emission limits would not be justified. 6-25

The MFA and its representatives look forward to continued discussions on the amended rule with the AQMD. Thank you and we look forward to your response.

Sincerely,

Wesley Turnbow
President

cc: Barry Groveman, Musick Peeler
Ryan Hiete, Musick Peeler
Susan Nakamura, SCAQMD (via email only)
Kurt Wiese, SCAQMD (via email only)

Responses to Metal Finishing Association of Southern California (MFASC) Comment Letter, submitted 11/XX/17

6-1 Response: Please see Response to Comment 1-1.

6-2 Response: Please see Response to Comment 1-2 and 1-12.

6-3 Response: Please see Responses to Comment 1-7 and Comment 2-3. The use of 1 ng/m^3 in recent Orders for Abatement were established based on the impacts of the subject facilities' hexavalent chromium emissions on the nearest sensitive receptors. PAR 1469 does not include such a standard.

6-4 Response: ~~The applicability of~~ PAR 1469 ~~is~~ applies to facilities performing chromium electroplating and chromic acid anodizing. Proposed rule requirements are specific to tanks at these facilities. If facilities that do not perform chromium electroplating or chromic acid anodizing have process tanks that contain chromium, these other facilities are not subject to the requirements of PAR 1469. However, they are subject to Rule 1426, and under a future rulemaking for PAR 1426, additional requirements may be needed.

6-5 Response: PAR 1469 includes a definition for building enclosure under paragraph (c)(11). The language regarding breaks, gaps, cracks and deterioration was removed from the definition.

6-6 Response: Please see Response to Comment 2-1.

6-7 Response: Please see Response to Comment 2-6.

6-8 Response: The comment refers to Tier II Tanks. Most of these tanks are now considered Tier III Tanks, with an intermediate designation of Tier II for tanks that meet the definition of paragraph (c)(58). Please see Response to Comment 2-7.

6-9 Response: The prohibition on air sparging that was a part of the first proposal for PAR 1469 has been removed.

6-10 Response: The requirements for freeboard height have been removed from PAR 1469.

6-11 Response: The concept for the requirement for a 3.5% threshold for openings as a percentage of building envelope is based on EPA Method 204. PAR 1469 requires the lower 3.5% threshold, relative to the 5% allowance for a PTE under EPA Method 204, since building enclosures are not required to be kept under negative pressure and vented to APC systems. PAR 1469 requires housekeeping and best management practices such as limiting cross-draft and prohibiting openings facing nearby sensitive receptors or

schools to minimize exposure to sensitive populations in nearby communities.

6-12 Response: Paragraph (e)(3) has been modified to allow the requested flexibility as allowed under paragraph (e)(2). Additional clarification has been added under subdivision (e) to specifically state that the provisions apply to building enclosures where Tier II or III Hexavalent Chromium Tanks are operated. Paragraph (e)(3) requires enclosure openings that directly face and open toward the nearest sensitive receptor, with the exception of a school, that is located within 100 feet to be closed. In addition, paragraph (e)(3) requires enclosure openings that directly face and open toward the nearest school within 1,000 feet to be closed.

6-13 Response: The proposal has been revised to allow openings that are not within 15 feet from a Tier II or III Tank. PAR 1469 requires closure of all enclosure openings in the roof that are located within 15 feet from the edge of any Tier II or Tier III Hexavalent Chromium Tank, except enclosure openings in the roof that are used to allow access for equipment or parts, or provide intake air or circulation air for a building enclosure that does not create air velocities that impact the collection efficiency of a ventilation system for an add-on air pollution control device. Tier I Tanks are not subject to the requirements of subdivision (e). The modified language for these requirements is included in paragraph (e)(4).

As an alternative to permanently closing openings, facility owner/operators have the option of venting those openings through HEPA controls.

6-14 Response: Please see Response to Comment 6-13. PAR 1469 only requires that roof openings within 15 feet of the edge of a Tier II or III Hexavalent Chromium Tank be closed or equipped with HEPA filtration to prevent hexavalent chromium emissions. During site visits to plating and anodizing facilities, staff observed steam emitting from hexavalent chromium tanks that escaped building enclosures through overhead rooftop vents, thus serving as a source of hexavalent chrome emissions. The SCAQMD staff consulted with CAL-OSHA, and it was determined that no requirement in PAR 1469 conflicts with a requirement of OSHA or CAL-OSHA. PAR 1469 includes a provision that allows facilities to implement alternative requirements to closing doors and other building enclosure provisions if PAR 1469 conflicts with OSHA or CAL-OSHA requirements for worker safety.

6-15 Response: Since the comment was submitted, paragraphs within subdivision (e) have been renumbered. Paragraphs (e)(5) and (e)(6) have been modified to add clarity. Paragraph (e)(5) references repairs for a breach. The proposal includes a definition for building enclosure under paragraph (c)(11). Provisions to inspect the building enclosure for breaks, cracks, gaps, and deterioration have been removed from PAR 1469.

6-16 Response: Source testing requirements have been modified since this comment was received. PAR 1469 has been changed to require a subsequent source test after the initial sources test every 60 months (five years) for facilities with permitted throughput of more than 1,000,000 amp-hrs/yr and every 84 months (seven years) for facilities with permitted throughput of less than 1,000,000 amp-hrs/yr, provided all capture efficiency tests conducted by the owner or operator within 48 months of the most recent successful SCAQMD-approved source test did not result in a failed measurement, requiring a tank to be shut down and all applicable inspection and maintenance requirements (specified in Appendix 4) were conducted. PAR 1469 allows the use of a source test conducted after September 1, 2015 to be used to demonstrate compliance with the initial source test requirement. In addition, an emissions screening test is allowed in lieu of a full source test, if the previous source test was conducted after January 1, 2009.

6-17 Response: Please see Response to Comment 2-12.

6-18 Response: Please see Response to Comment 1-11.

6-19 Response: Please see Response to Comment 2-13.

6-20 Response: The referenced subparagraph has been removed from the PAR 1469 rule proposal.

6-21 Response: Please see Response to Comment 2-15.

6-22 Response: Please see Response to Comment 1-9.

6-23 Response: Please see Response to Comment 1-10.

6-24 Response: Please see Response to Comment 2-18.

6-25 Response: Please see Response to Comment 2-20.

VERNE'S CHROME PLATING, INC
1559 W. EL SEGUNDO BLVD.
GARDENA, CALIF. 90249

Neil Fujiwara
AQMD

You invited me to call you, to discuss my concerns about upcoming changes with rule 1469. I thought it was better put in writing, for your consideration.

I am probably the smallest decorative chrome plating shop in your control area. I have one small plating line consisting of 1 cleaning tank, 1 copper, 1 nickel, and 1 chrome tank. I also have the necessary strip and water tanks to make it work. That's it. My entire facility is in a 50 foot by 60 foot building. We are in your less than 20,000 amp-hour per year category for the chrome tank, using only a fraction of that!

Starting in 1980 I once peaked at 8 full time employees. This small shop is still providing a living for 3 families, but just barely now. I hope you will be making exceptions for small existing business like mine.

My 3 main concerns are as follows:

1. Ventilation restrictions……The cleaner tank and the nickel tank consist of about 1300 gallons, at about 150 degrees. They give off a lot of heat and harmless steam. To make the workplace bearable, 2 small fans move air out the back of the building, drawing cooler dry air in the front. If you take that away, the heat and humidity will make working here impossible. Cal-OSHA has fined me for not wearing goggles, armpit length gloves, aprons, and full body coverings. We will be dropping from heat exhaustion here. You want no ventilation within 30 feet of the chrome tank. My entire plating area is 19 by 48 feet. Everything is within 30 feet of everything. 7-1

2. A cover on the chrome tank….If you want a cover when NOT in use, no problem, but what is the point of that? I can not operate the tank with a cover on it. A decorative shop puts 10 parts in the chrome tank then turns on the current. The smallest parts come out first, then power is increased, then mid size parts come out, then power is increased, then larger parts come out, then power raised to full on the last part. That will throw plating in a low current density area. This can NOT be done under a cover. I can't do parts one at a time, covering and uncovering with each tiny part. 7-2

3. Raised platforms changed to fiberglass…..I have wood walkways, covered in roofing paper. I am a 100% dry floor shop with NO spillage of solutions (chrome or otherwise) on my floors or wood platforms. Any inspector can easily see this. Parts from my chrome tank go directly to a drag out tank adjacent to the chrome tank with plastic shielding preventing even a drop from hitting the floor, or wood platforms. Forcing a change over to fiberglass will accomplish nothing, and be a huge expense, not warranted by the minimal income this business can continue to produce. 7-3

Please consider restrictions on all new construction, but allow the few of us left in this business to continue for the little time we have left. Attrition will solve your decorative chrome plating problem in just a few more years. 7-4

Ronald L Verne
Verne's Chrome Plating, Inc.

Responses to Comment Letter from Verne's Chrome Plating, Inc (submitted 12/1/17)

7-1 Response: Please see Response to Comments 6-13 and 6-14. Openings that would provide ventilation within the building include the allowance for openings totaling 3.5% of building enclosure envelope. PAR 1469 also includes a provision that allows facilities to implement alternative requirements to closing doors and other building enclosure provisions if PAR 1469 conflicts with OSHA, CAL-OSHA or local municipal code requirements for worker safety.

7-2 Response: Chrome plating tanks are already required to be controlled by an air pollution control technique such as the use of chemical fume suppressants or add-on air pollution controls. Tank covers are allowed as a control option for Tier II Tanks. However, electroplating and chromic acid anodizing tanks are required to be controlled by an air pollution control technique as identified in PAR 1469.

7-3 Response: PAR 1469 does not require that walkways be constructed of fiber glass and allows for walkways that are made of wood.

7-4 Response: SCAQMD typically establishes requirements for both new and existing facilities in order to address emissions from both sources. PAR 1469 applies to both existing and new facilities.

From: Bruce Greene [mailto:Bruce.Greene@hmfgroup.com]
Sent: Friday, December 1, 2017 3:23 PM
To: Eugene Kang <EKang@aqmd.gov>
Cc: Susan Nakamura <SNakamura@aqmd.gov>
Subject: Hixson Metal Finishing - PAR 1468 Comments

Eugene,

Please see attached for Hixson's comments on PAR 1469. Your consideration of these would be greatly appreciated.

If you have any questions or comments, please feel free to contact me.

Thanks

Bruce Greene
Environmental/Health & Safety

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PAR 1469 Analysis

(c)(30) – Fugitive Emission – The definition indicates any emission that could "Potentially" contain hex chrome. Technically that could be almost anything. Concrete dust, concrete mix, dirt, diesel emissions, etc. As this is used throughout the rule this could potentially led to inspectors widening the scope to the entire facility or even construction areas. This has been addressed in the revised rule. 8-1

(c)(35) – Low Pressure Spray Nozzle – If contained within a tank (spray rinse tank) this should not be required. A new definition of a Spray rinse tank may be required if this is exempted. A spray rinse tank is a tank that uses one or more nozzles to pre-rinse parts to remove a majority of the plating/anodizing solution from the parts. The parts are then rinsed in an immersion rinse tank. 8-2

(c)(56) – Tank Process Area – Would a PTE be considered the nearest wall of a building enclosure. We have a Tier II tank that is within 1 foot of the wall of a PTE. If that wall is not considered a Building Enclosure wall the tank process area would extend 30 feet out into a racking and oven drying area. If the PTE is considered a building wall, call it be added to the definition?. This was been clarified to include a PTE 8-3

(c)(62) – Weekly – Can weekly be changed to once per calendar week?. This has been changed to calendar week 8-4

(d)(3) – Air Sparging – We feel that if the tanks are vented to air pollution controls and within a PTE with negative air, the prohibition on air sparging should be lifted. – This has been changed to allow air sparging if vented to a pollution control device. 8-5

(d)(4) – Freeboard Height – We feel that the freeboard height should be allowed to be at 4 inches if the tanks are ventilated to air pollution controls and are within a PTE with negative air. – No exception for PTE has been added. Also, has there been a determination as to the 6-8 inches 8-6

(e)(1), (e)(2), and (e)(3) – These requirements should be waived if all Tier I and Tier II processing tanks are in a PTE with negative air. – We still feel that these requirements should be waived if the tanks are within a PTE. Would not the ultimate goal to be that all processing tanks are contained within a PTE. Would this not provide an incentive to do so. 8-7

(e)(8) – OSHA requirements. There are some additional requirements such as building and fire codes that may also have to be addressed. These should be added if possible. 8-8

(f)(1) – Storage – I think the intent of this section was to make sure that the chromic acid power/flake is stored in closed containers in an enclosed building/structure but as written this could make all materials that contain chromium (Paint, Concrete mix, Paint Racks, Paint filters, Stainless steel, even painted/processed parts awaiting shipment etc.) be required to be stored in a closed container inside a enclosed storage area. This could, technically, allow an inspector to expand the scope of the rule to many other processes. 8-9

(g)(1)(b) – Dragout – In manually operated process line some dragout will always be present. We have installed drip trays between the tanks that will catch all dragout and return it to the tanks. We have also installed catch pans in the walkways that would catch any dragout that may fall to the floor. These catch pans are equipped with drains that lead to our waste treatment system so that can be easily cleaned at the end of each shift. Would this setup be in ~~compliabee~~compliance with this rule section? Also, this section seems to contradict sections (f)(3) and (f)(4) that gives a 1 hour maximum for clean up and a daily clean up requirement. – Drip tray or containment device has been added. 8-10

(g)(7) – Use of compressed air – This requirement should be exempted if the tanks and drying operation are within a PTE with negative air. – PTE exemption has been added 8-11

(h)(4) (A) – What if the scrubbed tanks are a combination of electrolytic and non-electrolytic? What standard applies? Would this require 2 separate source tests? 8-12

(h)(4)(A)(iii) – mg/hr – This is still to be determined. Any idea on the requirement? – Added a requirement of 0.20 mg/hr. This limit does not seem to take a number of factors into account such as tank size (square feet of surface area), the CFM of the pollution control equipment or the number of tanks being vented. Would it be better to determine a limit based on mg/dscf. 8-13

(h)(4)(B)(ii) – The section has a reference back to the same section, I think this is a typo and should reference back to (h)(4)(B)(i)? 8-14

(h)(4)(C) – This section seems to allow an exemption for scrubbers on tier II tanks as long as it meets the 0.0015 mg/amphr or 0.20 mg/hr. Is this the case? 8-15

(h)(5) – Ventilation Design – Our control equipment has already been designed, permitted and installed. We assume that our systems, as long as they pass source test would be in compliance with this requirement. – Can we add in this section "or if approved by the Executive Officer" 8-16

(k)(2)(B) – Source Testing for covered Tier II tanks – This seems to contradict section (h) that indicates that you need to prove that emissions are below 0.0015 mg/amphr or 0.20 mg/hr. How can you accomplish this without a initial source test? 8-17

(k)(3)(A) – Source Tests – Could the 36 month time period be extended if all process tanks are contained in a PTE with negative air? Since we have completed source tests prior to adoption of the rule when would the next 36 months be? On the anniversary date of the source test, 3 years after we receive results or 3 years after adoption of PAR 1469? – Can we please get some more information when the clock starts ticking on the 36 months? We should have all of our source tests complete by rule adoption. Is the timeline 36 months after rule adoption or 36 months from the testing date. 8-18

(k)(3)(B) – Source Tests – Since we have already completed source testing that was approved by the district, we assume that we would be in compliance with this section? – Can "or if approved by the Executive Officer" be added 8-19

(k)(3)(C)(iii)(C) – These emission standards have not yet been determined – Please see section (h)(4)(A)(iii) above 8-20

~~(k)(4)(A) – Source Test Protocol – Sorry not sure what this section means. Can we please discuss?~~

(k)(6)(A)(ii)(Table 4) – Push Air Manifold Pressure TBD. Any additional info? – This appears that it will be tied to the source test. Is this correct? 8-21

(m)(1)(C)(Table 5) – This means a gauge needs to be installed at each push header? Still not totally clear but this seems to mean that a pressure gauge will have to be installed in each push header and an anemometer will have to be installed at some point in the duct work of the pollution control system. Is this correct? 8-22

(m)(1)(D) – How is this to be measured? We also feel this requirement should be waived if the processing tanks are within a PTE with negative air. – Not Addressed. We would still not be able to pass this section of the rule in general plate without removing the tank or dialing back the CFM on the PTE. We still feel there should be an exemption for a PTE 8-23

(n)(2) – Indicates mechanical fume suppressants and refers to table 4-2 of appendix 4. There is no requirement in the table for pollyballs. There is a requirement in section (o)(4)(E) of the rule and this requires daily inspection 8-24

(o)(4)(C) – Pressure Measurements – What applicable pressure measurements is this referring too? – Table 5 subdivision (m) – Push air. Velocity and Static pressure of scrubber. Could it be added that we could measure FPM in order to comply? 8-25

Appendix 3 – Ongoing Compliance Report – Will a new report be provided by AQMD? - Yes 8-26

Appendix 4 – Table 4-1, Collection Slots and Air Manifolds - -There is still a requirement for all the holes in the push air manifold to be tested once per month with an anemometer. I though this ~~was~~ was changed for a gauge to measure the header and additional measurements every 180 days. I think that this applies to the velocity of the inlets on the hoods for the scrubber. Not the individual holes in the push air header. Is this correct? 8-27

Appendix 8, section 3 – Tesing Conditions – The smoke test now has to be conducted with parts being processed in the tank. Can this be stated in a way that would allow for test panels, racks or scrap parts can be used. Actual parts may not always be available. 8-28

Appendix ~~8~~ 8 – Smoke tests – Does AQMD have a recommendation on the smoke devise to use since the Tel-Tru sticks and no longer available. We have been using the Drager Air Flow Tester. Will this be compliant? – No information was provided. 8-29

Responses to Hixson Metal Finishing Comment Letter, submitted 12/1/17

8-1 Response: The definition for fugitive emissions has been modified under PAR 1469 paragraph (c)(28), as follows: *". . .emissions generated from the operations at the owner or operator's facility, including solid particulate matter, gas, or mist, potentially containing hexavalent chromium that becomes airborne by natural or man-made activities, excluding particulate matter emitted from an exhaust stack."*

8-2 Response: The definition of low pressure spray nozzles is included in PAR 1469 paragraph (c)(34) as *"a water spray nozzle capable of regulating water pressure to 35 pounds per square inch or less"* and the allowable usage for low pressure spray nozzles is included under paragraph (g)(2) as follows: *". . .the owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall not spray rinse parts or equipment that were previously in a Tier II or Tier III Hexavalent Chromium Tank unless the parts or equipment are fully lowered inside a tank where the overspray and the liquid is captured inside the tank …".*

8-3 Response: A tank process area was clarified under paragraph (c)(55) to be: *". . .the area in the facility within 15 feet of any Tier I, Tier II, or Tier III Hexavalent Chromium Tank(s) and any associated process tanks, or to the nearest wall in a building enclosure or permanent total enclosure, whichever is closer".*

8-4 Response: The definition for weekly is: *". . . at least once every seven calendar days".* PAR 1469 does not amend this definition.

8-5 Response: The ~~requirement to prohibit~~prohibition of air sparging has been removed from PAR 1469.

8-6 Response: The requirements for freeboard height have been removed from PAR 1469.

8-7 Response: The requirements of paragraph (e)(1), in particular the allowable enclosure openings as a percentage of the building envelope are applicable to both building enclosures and PTEs. The requirements of paragraphs (e)(2) and (e)(3) are applicable only to building enclosures; not to PTEs. Please also see Responses to Comments 18-6 and 18-7.

8-8 Response: Paragraph (e)(6) has been modified to recognize possible conflicting requirements by OSHA, CAL-OSHA or other municipal codes or agency requirements directly related to worker safety. This modified language requires notification to the Executive Officer of requirements *". . . that cannot be complied with due to conflicting requirements set forth by the federal Occupational Safety and Health Administration (OSHA), California Division of Occupational Safety and Health (CAL-OSHA), or other municipal codes or agency requirements directly related to worker safety".*

8-9 Response: The requirement to store other substances that may contain hexavalent in a closed container in an enclosed storage area when not in use is an existing requirement. PAR 1469 ~~did~~ does not amend the requirement. This requirement only pertains to materials that are used in the process of chromium electroplating or chromic acid anodizing, not to concrete or stainless steel.

8-10 Response: Paragraph (g)(1) has been revised to allow liquid to be captured by a drip tray or other containment device. The requirement under paragraph (f)(3) requires spills to be cleaned up or contained using a drip tray within one hour. The commenter's arrangement of drip trays and catch pans would be sufficient to contain spills that fall on the drip trays and are directed to the catch pans. However, spills that are not captured by the drip trays are required to be cleaned up within one hour. The language of paragraph (f)(4) requires surfaces potentially contaminated with hexavalent chromium to be cleaned weekly.

8-11 Response: Paragraph (g)(6) has been reworded to read: *"…the owner or operator shall not conduct compressed air cleaning or drying operations within 15 feet of any Tier II or Tier III Hexavalent Chromium Tank(s) unless: A) A barrier separates the compressed air cleaning or drying operation from the compressed air cleaning or drying operation. A tank wall may function as a barrier as long as parts are compressed air cleaned or dried below the lip of the tank; or B) Compressed air cleaning or drying operations are conducted in a permanent total enclosure."* Therefore, compressed air cleaning is allowed in a PTE.

8-12 Response: PAR 1469 requires that existing facilities that vent both electrolytic and non-electrolytic tanks to an air pollution control device to comply with either a 0.0015 mg/amp-hr or 0.0011 mg/amp-hr limit based on whether the facility is existing or new. An owner or operator would need to only conduct one source test per air pollution control device.

8-13 Response: PAR 1469 clause (h)(4)(A)(iv) was modified based on stakeholder feedback to allow an emission rate based on the surface area of tanks for larger ventilation systems. The surface area is based on Tier III Tanks and other tanks required to be controlled by the SCAQMD Permit to Operate.

8-14 Response: Clause (h)(4)(B)(ii) references subparagraph (h)(4)(B), which specifies the schedule for when permit applications for add-on air pollution control systems must be submitted.

8-15 Response: PAR 1469 allows owners or operators to demonstrate that non-electroplating or non-anodizing Tier III Tanks uncontrolled emissions are less than the emissions limits specified in paragraph (h)(4). An owner or

operator who successfully demonstrates that uncontrolled emissions are less than the applicable emission standards are not required to vent the emissions from the subject tank to an add-on air pollution control device. This does not include chromium electroplating or chromium anodizing tanks that will be required to comply with paragraph (h)(2) or (h)(3).

8-16 Response: The capture velocity specified in the most current edition (i.e., at the time the SCAQMD permit application was deemed complete by SCAQMD) of *Industrial Ventilation, A Manual of Recommended Practice for Design*, are considered to be the minimum allowable velocity for design of an air pollution control system. As such, Executive Officer discretion is not necessary in this paragraph.

8-17 Response: An initial source test is required pursuant to subparagraph (k)(3)(A).

8-18 Response: Please see Response to Comment 2-11.

8-19 Response: A source test which was previously approved by SCAQMD may be used satisfy the initial source test requirement if conducted after January 1, 2015.

8-20 Response: The emission limits in the comment are identified in subdivision (h). Please also see Response to Comment 8-13.

8-21 Response: The allowable push air manifold pressure is based on the pressure range determined during the source test.

8-22 Response: PAR 1469 will require a static pressure gauge to monitor the push manifold pressure. A flow meter or static pressure gauge will be required in the duct work of the air pollution control system to monitor static pressure or airflow velocity.

8-23 Response: The~~is~~ requirement for a minimum air velocity within 10 feet of a hexavalent chromium tank has been removed from PAR 1469. Regarding the comment on an exemption from parameter monitoring within a permanent total enclosure (PTE), PAR 1469 requires all parameter monitoring irrespective of whether the tank is located within a PTE.

8-24 Response: The requirements of Table 4-4 are specific to Inspection and Maintenance requirements for sources using chemical or mechanical fume suppressants.

8-25 Response: PAR 1469 allows pressure to be measured in inches of water column and airflow velocity measured in actual cubic feet per minute.

8-26 Response: ~~A~~ The current requirements of new Ongoing Compliance Status and Emissions Report~~s is~~ are provided in Appendix 3 of PAR 1469.

8-27 Response: The requirements for Inspection and Maintenance Requirements are shown in the table below in Response to Comment 8-28.

8-28 Response: Table 4-2 in Appendix 4 has been modified to require the tank to be tested during typical operating conditions.

Control Technique/Equipment	Inspection and Maintenance Requirements	Frequency
Temperature Gauge	1. Install and maintain per manufacturer's specification at each Tier I, II, and III Hexavalent Chromium Tank.	1. Per manufacturer.
	2. Calibrated or confirmed to be accurate.	2. Once per year
Collection Slots and Push Air Manifolds for Push-Pull Systems	1. Visually inspect slots and push air manifolds to confirm that there are no obstructions or clogs.	1. Once per week.
	2. Clean slots or push air manifolds.	2. Once every 180 days.
	3. Measure slot velocity of each slot and pressure at each push air manifold using a hot-wire anemometer, vein anemometer, or approved device	3. Once every 180 days.
Air Flow Gauges	Install and maintain per manufacturer's specifications.	Per manufacturer

8-29 Response: Staff does not make a recommendation for the smoke device to use during smoke tests.

COUNTY OF LOS ANGELES
Public Health

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December 8, 2017

Wayne Nastri, Executive Director
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Re: Proposed Amended Rule 1469, Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Dear Mr. Nastri,

The Los Angeles County Department of Public Health (DPH) appreciates this opportunity to comment on the Proposed Amended Rule 1469 regarding hexavalent chromium emissions from hexavalent chromium electroplating and chromic acid anodizing operations. We support the South Coast Air Quality Management District's (SCAQMD) policy and enforcement efforts over the last year to reduce chromium emissions in the Los Angeles Basin. In October 2016, SCAQMD discovered that Anaplex, a chromium electroplating facility in the City of Paramount, was responsible for ambient chromium emissions up to 400 times higher than those reported for other urban areas in Los Angeles. SCAQMD and DPH coordinated their enforcement efforts to require Anaplex to reduce its chromium emissions to below 1 ng/m^3. In this case, swift abatement action was necessary due to the well-known carcinogenicity of hexavalent chromium and proximity of residential areas. Hexavalent chromium compounds have been shown to cause lung cancer in humans when inhaled at high concentrations for long periods of time.

DPH is concerned that the potential for elevated hexavalent chromium emissions extends well beyond the borders of the City of Paramount and concentrates in communities already facing many other social, economic and environmental burdens. There are a total of 87 chromium electroplating and chromic acid anodizing operations with SCAQMD permits in Los Angeles County, and the majority of these are located in the most burdened areas of Los Angeles, as shown by the red shading in the attached map. The Proposed Amended Rule 1469 presents a golden opportunity for facilities to institute the necessary emission controls and prioritize the health of surrounding neighborhoods and

9-1

chromium workers. After review of the Proposed Amended Rule 1469, DPH recommends that SCAQMD revise the Rule to include the following requirements: 9-1 (cont'd)

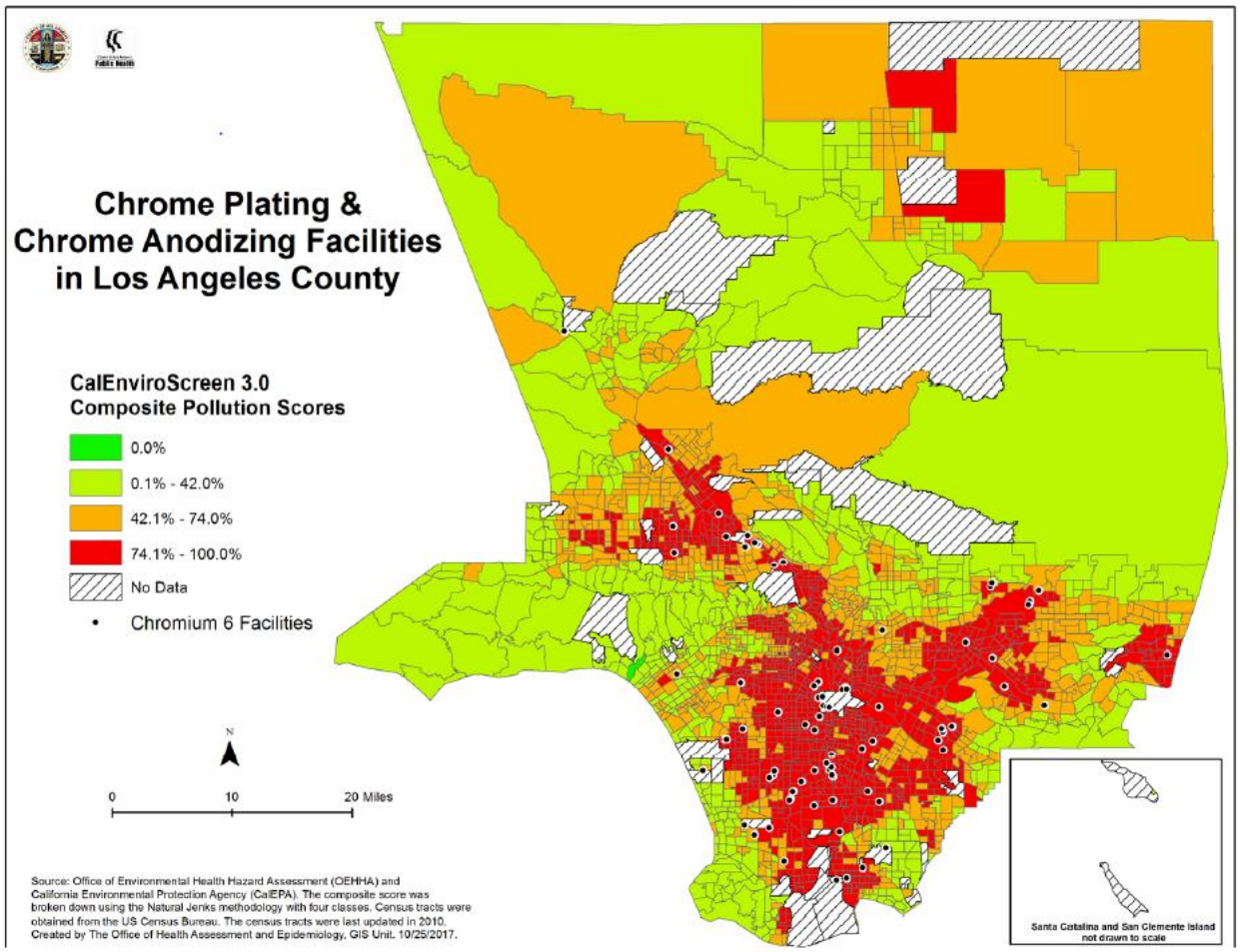
- Consistent with recent European Union legislation, ban hexavalent chromium for decorative purposes. 9-2
- Periodic fenceline air monitoring to facilitate continued assessment of ambient hexavalent chromium emissions across Los Angeles County. 9-3
- Prior to using chemical fumes suppressants that do not contain perfluorooctanesulfonic acid (PFOS), which were banned in the Federal NESHAPs Rule, comprehensive toxicity assessments must be completed and demonstrate the safety of the proposed alternative chemicals. Available toxicity assessments by the Office of Environmental Health Hazard Assessment raised serious concerns about the safety of these chemicals (see attached). It is essential these alternative chemicals not be relied upon as a means to control emissions of hexavalent chromium in plating tanks unless and until their safety has been demonstrated. 9-4
- The current version of the proposed rule provides for additional protections for schools situated within 100 feet from a plating facility. While we support additional protections for schools and other sensitive land uses in proximity to plating facilities, we believe the distance of 100 feet is insufficient. These additional protections are warranted for any sensitive population in close proximity to emissions of hexavalent chromium. 9-5
- Establish a mandatory consultative process with the California Division of Occupational Safety and Health's (Cal/OSHA) to ensure adequate worker protection. 9-6

Considering both the toxicity of hexavalent chromium and the proximity of chromium facilities to Los Angeles County residents, we urge the SCAQMD to ensure that the Proposed Amended Rule 1469 requires the best technology available to prevent chromium emissions from impacting local air quality. 9-7

Sincerely,

Cyrus Rangan, M.D., F.A.A.P., F.A.C.M.T.
Director, Toxicology & Environmental Assessment
Environmental Health Division, Department of Public Health

Enclosures: (2)


Chrome Plating &
Chrome Anodizing Facilities
in Los Angeles County
CalEnviroScreen 3.0
Composite Pollution Scores
0.0%
0.1% - 42.0%
42.1% - 74.0%
74.1% - 100.0%
No Data
Chromium 6 Facilities
N
0
10
20 Miles
Source: Office of Environmental Health Hazard Assessment (OEHHA) and California Environmental Protection Agency (CalEPA). The composite score was broken down using the Natural Jenks methodology with four classes. Census tracts were obtained from the US Census Bureau. The census tracts were last updated in 2010.
Created by The Office of Health Assessment and Epidemiology, GIS Unit. 10/25/2017.
Santa Catalina and San Clemente Island not drawn to scale

Responses to County of Los Angeles Department of Public Health (Cyrus Rangan) Comment Letter, submitted 12/8/17

9-1 Response: Implementation of PAR 1469 will reduce hexavalent chromium emissions from tanks that are currently not regulated. In addition, provisions for building enclosures, parameter monitoring, and periodic source testing will help to reduce exposure to hexavalent chromium to nearby communities. PAR 1469 includes limitations and restrictions for facilities located near sensitive receptors. Examples include:

1. Close any building enclosure opening that directly faces and opens towards a sensitive receptor, located within 100 feet, or a school located within 1,000 feet;
2. Ensure a new facility is not located within 1,000 feet from the boundary of a sensitive receptor, a school under construction, or any area that is zoned for residential or mixed use;
3. Expedited requirement to construct a permanent total enclosure (if triggered), if property line of the electroplating or anodizing facility is within 500 feet of the property line of any sensitive receptor or school; and
4. Prior to approval of alternative compliance method for emissions control, demonstrate that the facility is at least ~~25 meters~~75 feet from a sensitive receptor.

9-2 Response: PAR 1469 incentivizes facilities that make an early commitment to phase out hexavalent chromium from their process by delaying requirements to install add-on air pollution controls on Tier III Tanks. If hexavalent chromium is phased out according to the approved phase-out plan, the facility will not incur costs for controls as they will no longer be required to install add-on air pollution controls. There are certain applications for decorative plating where it is necessary to use hexavalent chromium for quality or appearance, or to meet a customer specification tied to a long-term contract. The adoption resolution for PAR 1469 will have a commitment to conduct a study on alternatives to hexavalent chromium. Please refer to Chapter 1 for more information on the European Union's hexavalent chromium ban and see Response to Comment 3-8.

9-3 Response: Although ambient monitoring provisions are not included in PAR 1469, a separate rule for ambient monitoring is on SCAQMD's Rule Forecast for 2018. PR 1480 – Air Toxic Metals Monitoring will provide a comprehensive approach to monitoring of air toxics at all facilities emitting toxic air contaminants, not only hexavalent chromium emitting facilities. Therefore, it is more appropriate to consider monitoring within the context of PR 1480 instead of within PAR 1469. Please also see Response to Comment 1-7.

9-4 Response: Under the existing requirements of Rule 1469, certain facilities with low throughput are allowed to use a certified wetting agent chemical fume suppressant as the sole means of control instead of installing air pollution control equipment. PAR 1469 includes provisions which require SCAQMD and CARB to conduct tests to determine if these non-PFOS wetting agent chemical fume suppressants can be certified.

Beginning July 1, 2021, facilities may only add a wetting agent chemical fume suppressant that is certified based on a revised process conducted by SCAQMD and CARB. This date will allow sufficient time for facilities to implement alternatives, manufacturers to potentially reformulate chemical fume suppressants, and SCAQMD staff to certify the wetting agent chemical fume suppressant.

Staff has added a provision that the Executive Officer in consultation with CARB may ~~certify~~ approve an alternative to a wetting agent chemical fume suppressant that is as equally effective as a certified chemical fume suppressant pursuant to paragraph (l)(2) of PAR 1469. This approach will allow facilities to use an alternative to a wetting agent chemical fume suppressant if emissions testing conducted by SCAQMD demonstrates that the alternative is as equally effective as a certified wetting agent chemical fume suppressant. Additionally, the owner or operator of a facility that opts to use an alternative to a wetting agent chemical fume suppressant will be required to comply with ~~permit~~ conditions that are specified during the ~~certification~~ approval process.

The alternative to a wetting agent chemical fume suppressant would be available to only the smallest plating facilities that are currently allowed to use chemical fume suppressants. This approach will provide a cost savings, given that SCAQMD staff will conduct the necessary emissions testing. Also, similar to the use of certified chemical fume suppressants, no further emissions testing would be required, provided the operator complies with the conditions of the certification of the alternative.

PAR 1469 proposes to allow the continued use of certified wetting agent chemical fume suppressants during the revised certification process to protect workers in chromium electroplating and chromic acid anodizing facilities that may otherwise be exposed to emissions of hexavalent chromium from electrolytic tanks operated without APC systems. Chemical fume suppressants are a proven and highly effective method of reducing emissions from electroplating operations, thereby protecting workers from emissions of hexavalent chromium, a known human carcinogen.

The following documents submitted by the commenter as an attachment to the comment letter were considered during the rule development process:

1. Budroe, J. (2017, June 30). Toxicity of the Fume Suppressant Sodium Diamyl Sulfosuccinate [Letter to Robert Krieger].
2. Silva, R. M. (2015). *6:2 Flurotelomer Sulfonate (FTS/FTSA) and Perfluorohexanoic Acid (PFHxA) Toxicity Review* (Office of Environmental Health Hazard Assessment). Sacramento, CA: OEHHA.
3. Silva, R. M. (2015). *Summary of Reproductive and Developmental Effects of Perfluorohexane Solfonate (PFHxS)* (Office of Environmental Health Hazard Assessment). Sacramento, CA: OEHHA.
4. Silva, R. M. (2016). *6:2 Fluorotelomer Alcohol (FTOH) Toxicity Review (Office of Environmental Health Hazard Assessment)*. Sacramento, CA: OEHHA.

9-5 Response: PAR 1469 provides ~~distance~~ protections based on distance for both schools and sensitive receptors. For example, under paragraph (e)(3), facilities are required to close any building enclosure opening that directly faces and opens towards the nearest school that is located within 1,000 feet, as measured from the property line of the school to the building enclosure opening, except for the movement of vehicles, equipment or people. The same requirement applies to sensitive receptors located within 100 feet.

9-6 Response: Mandatory consultations are not established in rules. However, staff has been in communication with Cal-OSHA in regard to issues such as indoor heat and the appropriate ventilation air required for chromium electroplating and chromic acid anodizing facilities. As a practice, staff communicated with Cal-OSHA as well as other agencies, as necessary, during the rulemaking process.

9-7 Response: Best available control technology for point source controls of hexavalent chromium from electroplating tanks, chromic acid anodizing tanks, and Tier III Tanks with the potential for significant emissions includes a collection hood under negative pressure, vented to air pollution control with a final control stage equivalent to HEPA controls or better. This is the level of control proposed by PAR 1469.

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UPS Tracking Number:
1Z 104 3RR 01 6907 6579

December 11, 2017

Mr. Neil Fujiwara
Planning, Rule Development and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

RE: Comments on SCAQMD Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Dear Mr. Fujiwara:

Valley-Todeco, Inc. (Valley-Todeco) is pleased to submit the following comments on the November 17, 2017 preliminary draft rule language of South Coast Air Quality Management District's (SCAQMD) Proposed Amended Rule (PAR) 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations. Our California operations include a facility in Sylmar, California that would be directly impacted by PAR 1469.

Valley-Todeco is a wholly-owned subsidiary of Arconic Inc. (NYSE: ARNC). Arconic creates breakthrough products that shape industries. Working in close partnership with our customers, we solve complex engineering challenges to transform the way we fly, drive, build and power. Through the ingenuity of our people and cutting-edge advanced manufacturing techniques, we deliver these products at a quality and efficiency that ensure customer success and shareholder value.

Valley-Todeco is generally supportive of the SCAQMD's effort to develop an amended regulation to provide additional control of hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations to ensure that ambient air concentrations of hexavalent chromium remain protective of human health and the environment. We appreciate SCAQMD's continued interest in developing sound regulations that protect public health and the environment while minimizing unnecessary regulatory burdens on industry and offer the following comments to the SCAQMD for its consideration into the final amended Rule 1469.

1.0 Include a definition for buffing, grinding and polishing operations

PAR 1469 contains several requirements for buffing, grinding and polishing operations, including housekeeping requirements and best management practices. Valley-Todeco is concerned that, without a definition, the current interpretation of buffing, grinding and polishing activities and operations could be overly broad. For example, references to "clean, using an approved cleaning method, floors within 20 feet of a buffing, grinding, or polishing workstation" and "conduct all buffing, grinding, and polishing operations within a building enclosure" (emphasis added) could be interpreted that activities unrelated to chromium electroplating and chromic acid anodizing would be subject to these requirements, e.g. a maintenance area grinder for grinding a piece of angle iron or the grinding on a weld that has just been completed. These examples are clearly not within the stated purpose of the rule. 10-1

Therefore, Valley-Todeco recommends that PAR 1469 be revised by adding a definition for buffing, grinding, and polishing operations to read as follows:

> BUFFING, GRINDING, OR POLISHING means the buffing, grinding or polishing of parts that have gone through a process that includes one or more Tier I or Tier II Hexavalent Chromium-Containing Tanks.

2.0 Include a definition for associated process tank

PAR 1469 makes numerous references to 'associated process tank' but this term has not been defined. Associated process tanks are considered within the definition of a Tank Process Area, must be operated within a building enclosure under section (e), and are included in the BMP requirements of section (g). The Preliminary Draft Staff Report identifies several types of non-electroplating and non-anodizing tanks that can contain elevated levels of hexavalent chromium that could become a source of significant emissions[1]. Such tanks have been addressed in PAR 1469 through the 1000 ppm hexavalent chromium concentration threshold for Tier I and Tier II tanks and Valley-Todeco supports this. However, there are other tanks identified in the Preliminary Staff Report (Tables 1-1 through 1-4) that are associated with the overall process but which contain no or very low concentrations of hexavalent chromium and could not be a significant source of hexavalent chromium emissions. Some associated process tanks may even be located away from the main area of tank operations. Placing the same requirements on these tanks as Tier I Hexavalent Chromium-Containing Tanks would be an undue burden for little or no environmental benefit. 10-2

Valley-Todeco believes that PAR 1469 needs to include a definition of the term 'associated process tank' to exclude those tanks that are not located near a Tier I or Tier II Hexavalent Chromium Containing Tanks where there would be a higher potential for cross contamination, i.e. not located within a tank process area.

Therefore, Valley-Todeco recommends that PAR 1469 be revised by adding a definition for associated process tank to read as follows:

[1] Preliminary Draft Staff Report, Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, November 2017, p. 1-11.

ASSOCIATED PROCESS TANK means a tank that is located within a Tank Process Area but which is not a Tier I or Tier II Hexavalent Chromium-Containing Tank. 10-2 (cont'd)

3.0 Clarify the operation of devices in building enclosure openings that exhaust to the outdoor air

Section (e)(5) of PAR 1469 prohibits the operation of any device in a building enclosure opening in the roof that pulls air from the building enclosure and exhausts to the outside air unless the air is vented to a HEPA filter equipped air pollution control device. Valley-Todeco believes that the requirement needs to be clarified to specifically exclude air conditioning systems that pull air from the building enclosure and return air back to the building enclosure.

Therefore, Valley-Todeco recommends that section (e)(5) of PAR 1469 be revised to read as follows:

(5) Prohibit operation of any device in any building enclosure opening in the roof that pulls air from the building enclosure to the outdoor air unless the air is vented to an add-on air pollution control device that is fitted with HEPA filters. Roof-mounted air conditioning systems that return air back to the building enclosure are excluded from this requirement

10-3

4.0 Clarify the areas subject to daily cleaning

Section (f)(4) of PAR 1469 requires daily cleaning for surfaces within an enclosed storage area, open floor area, walkways around Tier I and Tier II Hexavalent Chromium-Containing Tanks, as well as any other surfaces that may become potentially contaminated. While 'enclosed storage area' is defined and 'walkways around the Tier I and Tier II Hexavalent Chromium-Containing Tanks' can be readily interpreted, the term 'open floor area' is not defined in PAR 1469 or described in the Preliminary Draft Staff Report, and can be interpreted differently by different people. To avoid potential compliance issues as to what constitutes 'open floor area', Valley-Todeco believes that this term needs to be clarified within the description of the housekeeping requirements of section (f)(4).

Therefore, Valley-Todeco recommends that section (f)(4) of PAR 1469 be revised to read as follows:

(4) Clean, using an approved cleaning method, surfaces within the enclosed storage area, open floor area within the tank process area, walkways around the Tier I or Tier II Hexavalent Chromium-Containing Tank(s), or any surface potentially contaminated with hexavalent chromium or surfaces that potentially accumulate dust at least daily;

10-4

5.0 Clarify that the edition of ACGIH's Industrial Ventilation manual that must be adhered to is the edition that is the most current edition at the time that a permit application for air pollution control equipment is deemed complete by SCAQMD

Section (h)(5) of PAR 1469 requires that air pollution control techniques are operated at the minimum hood induced capture velocity specified in the most current edition of

10-5

the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the ACGIH. Valley-Todeco is concerned that the requirement as currently written could result in the minimum capture velocity becoming a moving target where a facility would have to purchase (not free!) a copy of each new edition of *Industrial Ventilation, A Manual of Recommended Practice for Design* to determine if the minimum capture velocity requirement has changed. Furthermore, as written the PAR would appear to require facilities to upgrade the ventilation system and controls if there is a change to the capture velocity requirements specified in the Manual, and it is unclear how quickly these upgrades would be required. Valley-Todeco believes that the minimum capture velocity requirement should be based on the edition of *Industrial Ventilation, A Manual of Recommended Practice for Design* which is in effect at the time that a permit application for air pollution control equipment is deemed complete by the SCAQMD. This approach is consistent with other SCAQMD regulations, such as the recently adopted Rule 1430.

10-5 (cont'd)

Therefore, Valley-Todeco recommends that section (h)(5) of PAR 1469 be revised to read as follows:

(5) Ventilation Design and Operation for Air Pollution Control Techniques
The owner or operator of a facility that conducts chromium electroplating or chromic acid anodizing operations shall operate air pollution control techniques required under subdivision (h) and (t) at the applicable minimum hood induced capture velocity specified in the most current edition of the Industrial Ventilation, A Manual of Recommended Practice for Design, published by the American Conference of Governmental Industrial Hygienists~~.~~, at the time a permit application is deemed complete with the SCAQMD.

6.0 Delete the requirement for ensuring that air velocity within 10 feet of a controlled Tier II Hexavalent Chromium Containing Tank is less than one-tenth of the collection slot velocity of the more recent successful source test.

Section (m)(1)(D) requires that "any air velocity within 10 feet of a Tier II Hexavalent Chromium-Containing Tank vented to an add-on pollution control device is less than one-tenth of the collection slot velocity as specified in the most recent successful source test." However, the SQMD has provided no specifics on how this monitoring is to be accomplished, i.e. at what frequency, at how many locations, etc. in either PAR 1469 or in the Preliminary Draft Staff Report[2]. Valley-Todeco is concerned that lack of specific instructions on how to determine compliance with this requirement will result in different interpretations by facilities and SCAQMD inspectors and result in unnecessary compliance issues. PAR 1469 contains requirements for a building enclosure and prevention of cross currents under section (e), for qualitative and quantitative assessment of capture efficiency under section (k)(6), and for static and velocity pressure monitoring under section (m)(1)(C). Collectively, these requirements should provide sufficient assurance for the proper capture of emissions at a Tier II

10-6

[2] Preliminary Draft Staff Report, Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, November 2017

Hexavalent Chromium-Containing Tank and make the poorly defined requirement of section (m)(1)(D) superfluous. Therefore, Valley-Todeco recommends that section (m)(1)(D) be removed from PAR 1469.

10-6 (cont'd)

7.0 Clarify the surface tension measurement frequency for existing facilities already subject to this requirement

Current Rule 1469, at section (g)(2), requires "…Surface tension shall be measured daily for 20 operating days, and weekly thereafter as long as there is no violation of the surface tension requirement. If a violation occurs, the measurement frequency shall return to weekly for 20 operating days, and weekly thereafter." Section (m)(2)(A) of PAR 1469 retains the daily monitoring requirement for 20 operating days, but changes the weekly monitoring requirement to "every third operating day thereafter, but not less than once per week."

Valley-Todeco seeks clarification from the SCAQMD that sources currently subject to Rule 1469, and which have previously completed daily surface tension measuring for 20 days, will only be required to change the measurement frequency from weekly to every third operating day but not less than once per week under PAR 1469. And, that there is not an expectation to redo the daily measuring for 20 days just because of the measurement frequency change from weekly to every third operating day proposed in PAR149.

10-7

Conclusion

Valley-Todeco appreciates the opportunity to comment on PAR 1469. We are hopeful that our comments will help SCAQMD to further improve PAR 1469 and create a final amended rule that incorporates flexible and cost-effective compliance provisions for all affected facilities.

10-8

Should you require clarification or further discussion of our comments, please contact Dean Richardson (Valley-Todeco's Environmental Engineer) at dean.richardson@arconic.com or (818) 364-6062.

Sincerely,

Kristin March
Director of Operations
Valley Todeco, Inc.
Arconic Fastening Systems and Rings
Kristin.March@arconic.com

Responses to Valley-Todeco, Inc. (MFASC) Comment Letter, submitted 12/11/17

10-1 Response: The definition suggested in the comment does not capture all buffing, grinding and polishing operations of concern. In particular, it does not include products containing hexavalent chromium that are buffed, ground, or polished that do not go through a Tier I, Tier II or Tier III Tank.

10-2 Response: A definition for 'Associated Process Tank' has been added to the proposal as follows: *Associated Process Tank means any tank in the process line of a Tier I, Tier II, or a Tier III Hexavalent Chromium Tank.*

10-3 Response: The requirement under paragraph (e)(4) has been modified to require closure of all enclosure openings in the roof that are located within 15 feet from the edge of any Tier II or Tier III Tank. Please see Response to Comment 6-13. It is not the intent of this paragraph to include roof mounted air conditioners that return cooled air back into a building.

10-4 Response: Please see Response to Comment 1-9. Regarding the comment on "open floor area", this language exists in the current version of Rule 1469. No clarifications to this language are proposed.

10-5 Response: The language for paragraph (h)(6) has been modified to read: "*The owner or operator of a facility shall operate air pollution control techniques required under subdivisions (h) at or above the applicable minimum hood induced capture velocity specified in the most current edition (i.e., at the time the SCAQMD permit application was deemed complete by SCAQMD) of Industrial Ventilation, A Manual of Recommended Practice for Design, published by the American Conference of Governmental Industrial Hygienists".*

10-6 Response: The referenced subparagraph has been removed from PAR 1469.

10-7 Response: Please see Response to Comment 2-15.

10-8 Response: Thank you for your comment. The SCAQMD staff has worked with stakeholders throughout the rulemaking process to develop a proposal that is health protective and with consideration of cost impacts.

December 15, 2017

Mr. Eugene Kang
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Re: Public comments to Proposed Amended Rule 1469— Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing

Dear Eugene:

RadTech International hereby reiterates the comments we have made public workshop on proposed amended rule (PAR) 1469. RadTech is the association for the advancement of Ultraviolet/Electron Beam/Light Emitting Diodes (UV/EB/LED) technology. We represent over 800 members nationwide and have sister chapters worldwide. Our processes are environmentally friendly and generate essentially zero VOC emissions. Our technology has been recognized by the district and board members have been very supportive of our industry.

Some of our member companies have products that do not contain chrome. Thus, we would urge the district to provide incentives to companies who choose to reformulate their process and eliminate emissions of Hexavalent Chrome. The current overly prescriptive monthly reporting requirements for facilities who choose to phase-out chrome from their operations will be an impediment to the district's stated goal of reducing emissions of Hexavalent Chrome. As mentioned during the workshop, facilities who choose to eliminate toxics should be encouraged and supported to do so. Adding yet another regulatory process as a condition for conversion, is not helpful to businesses or to the district. We suggest that the frequency of the reporting be changed from twelve times per year to twice per year. Staff's concern with ensuring facilities are making progress with the conversion process, is addressed by the requirement for facilities to the file a Compliance Plan to the district. The Plan would already have timelines in place and any undue delay would be covered under the Compliance Plan.

11-1

Additionally, much testimony was heard from small and medium sized businesses, regarding the financial hardships they face in meeting the requirements of PAR 1469. We urge the district to partner with our industry and the regulated community and provide financial support for conversion to chrome-free projects. The district has typically focused on funding mobile source projects and stationary sources have not seen their fair share of assistance. We are hopeful that our industry can participate in recent funding opportunities being considered by the district. Toxic emission reductions are a key component of Assembly Bill 617 (Garcia) and any financial support the district can provide will not only benefit the business community but also the environment and help the district meet its mandates. 11-2

We appreciate your attention to these issues and look forward to a productive rulemaking effort.

Sincerely

Rita M. Loof
Director, Environmental Affairs

Cc: Wayne Nastri, SCAQMD Board

Responses to Comment Letter from RadTech International (submitted 12/15/17)

11-1 Response: PAR 1469 has been modified to require a default quarterly frequency for progress reports relating to Hexavalent Chromium Phase-Out Plans, and also provides flexibility for approval of different reporting frequencies as determined by the Executive Officer.

11-2 Response: Please see Response to Comment 9-2. If the non-PFOS chemical fume suppressants are not certified, SCAQMD staff will seek funding to help affected facilities with the costs of installation of add-on pollution control systems.

Staff has added a provision that the Executive Officer in consultation with CARB may ~~certify~~ approve an alternative to a wetting agent chemical fume suppressant that is as equally effective as a certified wetting agent chemical fume suppressant pursuant to paragraph (l)(2) of PAR 1469. This approach will allow facilities to use an alternative to a wetting agent chemical fume suppressant if emissions testing conducted by SCAQMD demonstrates that the alternative is as equally effective as a certified wetting agent chemical fume suppressant. Additionally, the owner or operator of a facility that opts to use an alternative to a wetting agent chemical fume suppressant will be required to comply with permit conditions that are specified during the certification process.

The alternative to a wetting agent chemical fume suppressant would be available to only the smallest plating facilities that are currently allowed to use chemical fume suppressants. This approach will provide a cost savings, given that SCAQMD staff will conduct the necessary emissions testing. Also, similar to the use of certified wetting agent chemical fume suppressants, no further emissions testing would be required, provided the operator complies with the conditions of the certification of the alternative.

From: Alan Olick [mailto:alanolick@aol.com]
Sent: Friday, December 15, 2017 11:04 PM
To: Neil Fujiwara <nfujiwara@aqmd.gov>; ekang@aqmd.gov.
Subject: Re: Update: Delay for PAR 1469

Hi Neil and Eugene;

Please try to read my letters to the AQMD concerning my recent NOV's.
I feel we are being treated unfairly and I was just required to pay additional monies
for a new source test and hiring a new testing company to repeat the same test
to certify our chrome tank which now one instead of two.
The place my company is in seems to have no cure as it appears that even the
new approved fume suppressant might not be allowed.
We have spent about $80,000.00 on testing our two chrome plating tanks and
many man hours of set up and clean up.
Please can you help us to cancel the recent NOV's?
I will have to close our chrome plating and my customers will send their plating
to Mexico.
I will do whatever it takes to keep on the good side of the AQMD.

12-1

Thank You
Alan Olick
MFASC board member for 30 years.
President of Brite Plating and General Plating
1313 Mirasol St
Los Angeles, Ca. 90023

Alan Olick
alanolick@aol.com

Responses to Comment Letter from Brite Plating and General Plating (submitted 12/15/17)

12-1 Response: PAR 1469 proposes to revisit the certification of the currently certified wetting agent chemical fume suppressants. Under the current proposal, beginning July 1, 2021, facilities may only add a wetting agent chemical fume suppressant to a Tier III Tank that is certified based on a revised process conducted by SCAQMD and CARB. The date was chosen to allow sufficient time for facilities to implement alternatives, manufacturers to potentially reformulate chemical fume suppressants, and SCAQMD staff to certify the chemical fume suppressants. The request to cancel the referenced Notices of Violations (NOVs) in the comment has been forwarded to SCAQMD's enforcement and legal staff. SCAQMD rules staff does not have the ability to cancel NOVs.

-------- Original message --------
From: Robina <robinasuwol@earthlink.net>
Date: 12/7/17 2:22 PM (GMT-08:00)
To: Eugene Kang <EKang@aqmd.gov>, Susan Nakamura <SNakamura@aqmd.gov>
Subject: Please share comment- "Listen Only" Call-in

Dear Susan & Eugene,

Extremely disappointing to note that the "call-in" is listen only, especially in of the fires which makes traveling challenging. 13-1

Below, is the link to the Madrid Statement that I hope can be distributed to all of the 1469 Workshop participants. 13-2

I hope that you can share our deep concerns with those today that we are extremely concerned about the Fume Supressants because of their high persistence, bioaccumulation potential and extreme toxicity.The communities we work with cannot allow these toxic emissions to continue, especially when engineered controls are available. 13-3

We are committed to working with AQMD and industry to locate funding sources to assist in transitioning to engineered controls. Sources we are investigating include, but are not limited to the California Pollution Control Financing Authority. 13-4

It is unfortunate that we cannot voice these concerns on this call, and would have attended in person today, were it not for the fires.

Please kindly share these comments with all participating in person, on the call, or other 1469 Workshop participants who also may have been impacted by the fires and unable to attend today. 13-5

Respectfully,

Robina Suwol
Founder & Executive Director
California Safe Schools
818.785.5515 office
www.calisafe.org

-----Original Message-----
From: Robina [mailto:robinasuwol@earthlink.net]
Sent: Thursday, December 7, 2017 2:49 PM
To: Eugene Kang <EKang@aqmd.gov>; Susan Nakamura <SNakamura@aqmd.gov>
Cc: dcapjane@aol.com; delamoactioncommittee@gmail.com; shabakaheru@yahoo.com; aguirrefel@gmail.com
Subject: Additional Concerns include: 100 ft. from sensitive receptors

Susan and Eugene,

I would also like to be on record for expressing serious concerns surrounding the recommendation of 100 feet from sensitive receptors. We are unclear what process and protocols were used to determine 100 feet, when most sensitive receptors are more in the 200- 300 foot range.

Protecting our most vulnerable is our highest priority, and the 100 feet proposal does would not provide sufficient protection.

13-6

Thank you very much for your consideration, and please kindly share this comment with the entire 1469 Workshop attendees today, and others who may not be able to attend. Thank you.
so much.

Respectfully,

Robina Suwol
Founder & Executive Director
California Safe Schools
818.785.5515 office
818.261.7965 cell
www.calisafe.org

Responses to Robina Suwal Email, submitted 12/7/17

13-1 Response: Throughout the rule development process, the SCAQMD staff has held 13 Working Group Meetings. All Working Group Meetings that were held at SCAQMD's headquarters in Diamond Bar had a call-in number where people could conference into the meeting and dialogue with staff. Unlike Working Group meetings, Public Workshops only have a "listen only" ability when held in the auditorium. This was also indicated on the Notice of Public Workshop.

13-2 Response: Staff did not receive a link to the Madrid Statement as indicated in the comment. It is not SCAQMD's policy to distribute non-SCAQMD materials to attendees at the Public Workshop.

13-3 Response: The Public Workshop Presentation included information from OEHHA's memos regarding the toxicity of the non-PFOS chemical fume suppressants. See also Response to Comment 9-4.

13-4 Response: If no non-PFOS chemical fume suppressants is certified, SCAQMD staff will seek funding to help the affected facilities with the costs of installation of add-on pollution control systems.

Staff has added a provision that the Executive Officer in consultation with CARB may ~~certify~~ approve an alternative to a wetting agent chemical fume suppressant that is as equally effective as a certified wetting agent chemical fume suppressant pursuant to paragraph (l)(2) of PAR 1469. This approach will allow facilities to use an alternative to a wetting agent chemical fume suppressant if emissions testing conducted by SCAQMD demonstrates that the alternative is as equally effective as a certified wetting agent chemical fume suppressant. Additionally, the owner or operator of a facility that opts to use an alternative to a wetting agent chemical fume suppressant will be required to comply with permit conditions that are specified during the ~~certification~~ approval process.

The alternative to a wetting agent chemical fume suppressant would be available to only the smallest plating facilities that are currently allowed to use chemical fume suppressants. This approach will provide a cost savings, given that SCAQMD staff will conduct the necessary emissions testing. Also, similar to the use of certified wetting agent chemical fume suppressants, no further emissions testing would be required, provided the operator complies with the conditions of the certification of the alternative.

13-5 Response: Refer to Response 13-1. The comments received via email are included in the Staff Report and responded to. The comment is part of the public record and is available to the public as a result.

13-6 Response: A sensitive receptor means any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing. The requirement to limit enclosure openings within 100 feet of a sensitive receptor is meant to ~~protect the health of~~reduce the exposure to sensitive receptors while being cost conscious~~considering the burden placed on facilities.~~ In addition to limiting enclosure openings within 100 feet of a sensitive receptor, PAR 1469 includes a requirement to install a permanent total enclosure under certain conditions for facilities located within 1,000 feet of a sensitive receptor.

February 2, 2018

Mr. Wayne Nastri
Executive Officer
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, California 91765

Re: Comments from Metal Finishers Association - Proposed Amended Rule 1469 and Preliminary Draft Staff Report, Working Group Meeting #9

Dear Mr. Nastri:

The Metal Finishers Association ("MFA") represents over 130 companies throughout Northern and Southern California, which comprise a diverse industrial base of metal finishing and related businesses that employ thousands of workers. Its members provide necessary products and services to manufacturers in various other industries, including, automotive, consumer products, industrial, energy, aerospace and numerous others. In particular, a large segment of our membership provide mission critical parts and components for military aircraft, satellites, telecommunications, defense and the like. In addition, well over 90% of the MFA membership meet the federal definition of Small Business with fewer than 150 employees, and these are typically private family businesses or otherwise small closely held companies.

Representatives of the MFA, including legal counsel and technical experts, have been actively engaged with AQMD staff since the beginning of this rulemaking process. MFA members and its representatives have also attended all nine (9) public working group meetings, including, the most recent meeting held on January 4, 2018 (referred to as "Working Group Meeting #9"), plus participated in numerous other meetings with the AQMD's legal counsel, economic experts and rule development staff. In addition, the MFA and its representatives attended and testified at Public Hearings on this rule development which were held on November 1, 2017 and December 7, 2017. This comment letter addresses information presented in PAR 1469 rule language and Preliminary Draft Staff Report dated January 19, 2018 ("Staff Report"), and public meetings held to date. The MFA reserves the right to modify or supplement these comments based on subsequent AQMD presentations, draft rules and other information.

1.0 RECENT DEVELOPMENTS AND IMPORTANT ISSUES

(1) PFOS Alternatives – Over the past decade, the MFA has been active on the research and rulemaking of PFOS alternatives at the federal and state level, and is very concerned about any suggested "phase out" of such alternatives for PAR 1469. As the SCAQMD is aware, many metal finishers depend upon the use of certified non-PFOS suppressants for regulatory compliance, which are currently allowed under the existing Rule 1469. Moreover, many of the smallest metal finishers depend solely upon such non-PFOS suppressants for compliance in lieu of add-on controls. Based on recent developments, the Staff Report indicates the SCAQMD and CARB is currently researching potential toxicity concerns with

14-1

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such non-PFOS suppressants, such as, fluorotelomer alcohol (FTOH), fluorotelomer sulfoinate (FTSA), perfluorohexanoic acid (PFHxA), perfluorohexane sulfonate (PFHx) and others. Based on these reviews, the Staff Report indicates the SCAQMD has determined the toxicity for these chemicals are largely inconclusive, including any potential carcinogenic effects. Further, with the exception of FTOH, OEHHA did not develop interim Reference Exposure Levels (iRELs) for these PFOS alternatives. In the case of FTOH, there are no proposed cancer potency factors, and its iREL for chronic impacts is several times higher than hexavalent chromium. As a consequence, the MFA does not believe the suggested "phase out" of such PFOS alternatives are warranted until such time there is convincing scientific evidence these chemicals pose an equal or greater risk to public health than the compound which it is controlling, hexavalent chromium. In our view, the benefits of reducing hexavalent chromium emissions far outweigh the inconclusive findings of potential toxicity risks from these PFOS alternatives.

14-1 (cont'd)

(2) Tier I Hexavalent Chromium Tanks – PAR 1469 (c)(58) proposes a threshold of 1,000 ppm of hexavalent chromium content to qualify Tier I tanks. As we have noted, there remains insufficient scientific support and test data that justifies such a low concentration threshold for Tier I tanks. Tier I should only apply to those tanks which exhibit the highest potential for hexavalent chrome emissions, and therefore exclude all other tanks from regulatory applicability. At this time, the Staff Report does not present sufficient test data to justify such a low concentration limit for Tier I tank applicability.

14-2

(3) Tier II Hexavalent Chromium Tanks – PAR 1469 (c)(59) proposes several categories of Tier II tank applicability based on minimum operating temperature and hexavalent chromium concentration. The SCAQMD presentation from Working Group #9 indicates a tank with as little as 100 ppm of hexavalent chromium would be a significant emission source. Further, the Staff Report concludes a tank that operates as low as 140°F with greater than 1,500 ppm would yield similar or greater amount of emissions. To support its conclusions, the Staff Report provide test data on Table 1-5 (shown below).

Table 1-5: SCAQMD Sampling of Various Temperatures

Tank Type	Tank Hexavalent Chromium Content (ppm)	Tank Operating Temperature (°F)	Run	Tank Hexavalent Chromium Emission Concentration (ug/m^3)	Tank Hexavalent Chromium Emission Rate (mg/hr)	Tank Hexavalent Chromium Emission Rate per Ft^2 ($mg/hr\text{-}ft^2$)
Alodine Tank	347	150	1	37.9	0.037	3.75E-3
			2	25.7	0.025	2.53E-3
			3	58.8	0.054	5.40E-3
			AVG	40.8	0.039	3.89E-4
Alodine Tank	333	160	1	72.7	0.083	8.33E-3
			2	51.3	0.058	5.80E-3
			3	134.9	0.156	1.56E-2
			AVG	86.3	0.099	9.92E-3

14-3

As shown in Table 1-5, the Staff Report provides only six (6) data points from a single tank at two (2) operating temperatures (150° F and 160° F) and hexavalent chromium concentrations of 347 and 333 ppm, respectively. From this very limited sample size, the Staff Report averaged 3 data points per tank, and then concludes, *"At 150°F, 0.20 mg/hr would be exceeded when tank hexavalent chromium concentrations exceed 1,780 ppm. At 160° F, would be exceeded when tank hexavalent chromium concentrations exceed 673 ppm."* Further, based on this same data set, the SCAQMD presentation from Working Group #9 further indicates a tank with as little as **65 ppm of hexavalent chromium** could be a

significant source of emissions. The Staff Report appears to make a direct linear correlation of hexavalent chromium concentration and temperature based on this limited sampling data to support its conclusion that Tier II add-on controls are warranted.

The MFA disagrees with the SCAQMD stated conclusions and findings for the proposed Tier II tank categories. First, it is clear the proposed Tier II tank categories are based on very little test data, which are not statistically significant. Second, the Staff Report does not provide any evidence that the proposed Tier II tanks would result in any meaningful or significant emissions outside of a building enclosure. Quite the contrary, as we have noted in prior working group meetings, the AQMD source test staff has indicated measured fugitive emissions through rooftop vents are far below any measurements at the tank surface by several orders of magnitude, even concerning tanks with higher temperatures and concentrations. Third, the above test results are "theoretical" emissions, as the source test results do not take into account various operational effects, such as tank covers, mechanical suppressants, limited operating schedules, tank sizes, etc. Moreover, given that PAR 1469 already proposes severe restrictions on building enclosures, including 3% openings, no cross-draft, limited ventilation and other requirements, such minor emissions (if any) from such proposed Tier II tanks would be sufficiently contained inside a building enclosure, and further add-on controls would not be necessary.

14-3 (cont'd)

Aditionally, even though the SCAQMD proposed some revisions for larger airflows on larger tanks, the standard of .20 mg/hr still appears to be an inappropriate standard because it is essentially a mass load and is not scalable for different sized tanks and operations.

(4) Cost Estimates for APCD – The MFA has been collecting data on the cost of installing HEPA systems over Tier II tanks. Our economist is working closely with SCAQMD staff and will release his findings shortly. The cost per CFM is showing to be around $20. The MFA believes that the early estimates from the SCAQMD January 4, 2018 meeting are unrealistically low.

14-4

(5) Capture Efficiency Testing – PAR 1469 (k)(6) specifies routine slot velocity, pressure of push air manifolds and smoke testing for applicable tanks with add-on control devices every 6-months. In particular, PAR 1469 specifies that a facility must "shut down" all chrome electroplating and anodizing lines, if such tests show a deviation of +/- 10% from the most recently approved AQMD source test or emission screening. The MFA remains concerned of such stringent limitations and shut down requirement, given the numerous factors that could impact these capture test results, such as, equipment sensitivity, testing locations, personnel handling and others. 10% is a very small margin for error which would be difficult to ensure compliance, could result in unnecessary equipment shut downs, and ultimately lead to triggering to costly Permanent Total Enclosure (PTE) requirements pursuant to PAR 1469 (t).

14-5

(6) Ambient Monitoring Near Metal Finishers – The Staff Report continues to present the ambient monitoring data of hexavalent chromium around metal finishers in the cities of Newport Beach, Paramount, Long Beach and Compton. Air toxics enforcement actions against these facilities have referenced a hexavalent chromium concentration of 1 ng/m^3 as a fence line (or near fence line) threshold for enforcement purposes, which we have consistently argued is not supported by the current science. As noted on numerous occasions, the MFA have raised legitimate issues of flawed assumptions, unreliable data, lack of established protocols, use of monitoring equipment not supported by the manufacturer for the purpose for which it has been used, contributing sources, prohibitive costs and inconclusive results relating to this ambient air monitoring data. Based on testimony of affected small businesses during this entire rulemaking, it is clear the AQMD's continued use of such unreliable air monitoring data will have significant adverse economic impacts, including loss of customers, decreased business volumes and

14-6

employee layoffs. To date, the ambient monitoring at many metal finishing facilities are still ongoing for at least 6+ months, and over a year in a few cases. Based on the extensive amount of ambient samples collected, the hexavalent chromium emissions data remains largely inconclusive for any regulatory purposes, and further, would not pass scientific or legal scrutiny in nearly all cases. 14-6 (cont'd)

2.0 PROPOSED KEY AMENDMENTS

(7) Building Enclosures – PAR 1469 (e) specifies numerous building enclosure requirements for both Tier I and Tier II tanks, which the MFA remains concerned on several issues:

a) *Limitation on Building "Openings"* – As per PAR 1469(e)(1), the MFA opposes the 3% surface area limitation on the number of openings in building enclosures, such as doors, windows, roll up doors and others. Over the course of the prior 6+ months of rule development and workshops, a specific surface area or other limitation on building openings has never been presented nor studied by the AQMD staff, and is not supported by any scientific or other evidence in the record. At a minimum, the MFA does not believe the 3% limit for building enclosure should be stricter than EPA Method 204 (Permanent Total Enclosure), which provides for 5% of total surface area. 14-7

b) *Close Roof Openings within 15 feet* – PAR 1469 (e)(4) requires the closure of all roof openings located within 15 feet above the edge of any Tier II Tank. The MFA fails to see the purpose of this requirement since Tier II tanks are required to have air pollution controls and meet allowable emission limits. As a consequence, the MFA requests that this provision be removed. 14-8

c) *Prohibition on Rooftop Ventilation* – PAR 1469 (e)(5) prohibits any device in any roof opening that pulls air from building enclosures for Tier I and Tier II tanks. The MFA is concerned that such a broad prohibition on building ventilation/exhaust will create uncomfortable, and likely unsafe, working conditions for employees within such enclosures. Moreover, as we have noted in prior working group meetings, the AQMD source test staff has indicated measured fugitive emissions through rooftop vents are far below any measurements at the tank surface by several orders of magnitude. Consequently, such a broad prohibition on rooftop ventilation for building enclosures is not warranted. 14-9

d) *Breaks, cracks, gaps and deterioration* – PAR 1469 (e)(6) and (7) specifies monthly inspections, and a 72 hour repair of "breaks, cracks, gaps and deterioration" of building enclosures. There is no clear definition of "breaks, cracks, gaps and deterioration" in the rule, and unlikely that a clear definition is possible. As a consequence, the MFA opposes these inspection and repair requirements, given the vagueness of "breaks, cracks, gaps and deterioration", and a high risk of wide interpretation by AQMD enforcement officers for issuance of NOVs. 14-10

(8) Permanent Total Enclosures (PTEs) – PAR 1469 (t) specifies a trigger for PTEs for Tier II tanks based on (a) failure of a source test within a 48 month period; or (b) more than one incident of failure of smoke and/or slot velocity measurements within 48 month period. If triggered, PAR 1469 requires permit applications for a PTE within 180 days, and construction of the PTE within 12 months. In general, the MFA does not believe that PTEs are necessary to control potential Tier II tanks, as we anticipate the use of buildings, housekeeping and BMPs would be sufficient control measures. As we 14-11

have noted, the use of PTEs can also be very costly and difficult to implement, especially for facilities that were not originally designed nor constructed to accommodate PTEs for existing tank operations. Due to a small margin of failure and issues noted above for the proposed testing, it is too easy for a PTE to be triggered under the proposed rule. Moreover, the proposed requirement to shut down a Tier II tank for failing the quantitative tests is sufficient to maintain compliance, and such PTE requirements are unnecessary. For all these reasons, the MFA requests that a PTE on-ramp requirement be removed from the proposed rule. 14-11 (cont'd)

(9) Freeboard Height – PAR 1469 (d)(4) would require a minimum freeboard height based on the ACGIH Industrial Ventilation Manual for newly installed (or modified) Tier II tanks after the rule adoption date. As noted previously, the MFA opposes a freeboard height requirement for new or modified applicable tanks, as it has not been demonstrated that a minimum freeboard height results in any meaningful emission reductions. Moreover, to manage a different freeboard height for different tanks would create significant compliance issues for facility operators while providing minimal environmental benefit. 14-12

(10) Source Testing – PAR 1469 (k)(3) requires initial compliance source test for all facilities within 120 days from rule adoption, and then every 36 months thereafter. The MFA requests that subsequent source tests/screenings be conducted every 5 years after the initial test, not every 3 years. 14-13

(11) Notification of Incidents – PAR 1469 (p)(4)(A) requires a regulated facility to notify the AQMD within "one hour" of any failed smoke test, failed source test, exceedance of a permitted ampere-hour limit or malfunction of a non-resettable ampere-hour meter. Further, PAR 1469 (p)(4)(B) requires corrective action and a written report within seven (7) days of notification. The MFA believes these proposed notification requirements are redundant, as existing AQMD Rule 430 already covers the reporting of such incidents that result in rule or permit violations. 14-14

(12) Surface Tension Testing – PAR 1469 (o)(4)(D) proposes a "daily" surface tension test for 20 consecutive days, and then every 3rd day thereafter, provided there is no violation of surface tension requirements. As noted previously, the MFA opposes such rigorous testing frequency since the current requirement of weekly surface tension testing is sufficient to ensure compliance. Moreover, there is insufficient data which warrants a more frequent testing requirement. 14-15

(13) Housekeeping – The MFA opposes daily cleaning of applicable tanks and operational areas, as currently proposed in PAR 1469 (f)(4), as this places an undue burden on metal finishers. The current cleaning requirement is once per week, which we believe is sufficient housekeeping for applicable operations. 14-16

(14) Water Spraying – Regarding the proposed limitations on using water sprays as currently proposed in PAR 1469 (g)(2), the MFA does not believe such limitations are necessary. Given the water spray typically occurs over rinse tanks, and that neither the parts nor rinse tank will have significant amounts of chrome laden liquid. 14-17

(15) Compressed Air Cleaning or Drying – Regarding the proposed limitations on using compressed air cleaning or drying within 15 feet of a Tier I or Tier II tank as currently proposed in PAR 1469 (g)(7), the MFA does not believe such limitations are necessary. At this point in the process, any residual rinse water on finished parts will have negligible amounts of hexavalent chrome, if any. 14-18

The MFA and its representatives look forward to continued discussions on the amended rule with the AQMD. Thank you and we look forward to your response.

Sincerely,

Wesley Turnbow
President

cc: Susan Nakamura, SCAQMD (via email only)
Kurt Wiese, SCAQMD (via email only)
Barry Groveman, Musick Peeler
Ryan Hiete, Musick Peeler

Responses to Metal Finishing Association of Southern California (MFASC) Comment Letter, submitted 2/2/18

14-1 Response: PAR 1469 proposes to revisit the certification of the currently certified wetting agent chemical fume suppressants. Under the current proposal, beginning July 1, 2021, facilities may only add a chemical fume suppressant to a Tier III Tank that is certified based on a revised process conducted by SCAQMD and CARB. The date was chosen to allow sufficient time for facilities to implement alternatives, manufacturers to potentially reformulate chemical fume suppressants, and SCAQMD staff to certify the chemical fume suppressant. Please see also Response to Comment 9-4.

Until the new certification process is completed, it is premature to consider the process a "phase-out" of the currently certified non-PFOS chemical fume suppressants. That is one of several possible outcomes of the re-certification process. Staff will work with CARB and the Office of Environmental Health Hazard Assessment (OEHHA), as well as other regulatory, agency, industry and public stakeholders as appropriate.

Staff has added a provision that the Executive Officer in consultation with CARB may ~~certify~~ approve an alternative to a wetting agent chemical fume suppressant that is as equally effective as a certified wetting agent chemical fume suppressant pursuant to paragraph (l)(2) of PAR 1469. This approach will allow facilities to use an alternative to a wetting agent chemical fume suppressant if emissions testing conducted by SCAQMD demonstrates that the alternative is as equally effective as a certified wetting agent chemical fume suppressant. Additionally, the owner or operator of a facility that opts to use an alternative to a wetting agent chemical fume suppressant will be required to comply with permit conditions that are specified during the ~~certification~~ approval process.

The alternative to a wetting agent chemical fume suppressant would be available to ~~only the smallest~~ plating facilities that are currently allowed to use chemical fume suppressants. This approach will provide a cost savings, given that SCAQMD staff will conduct the necessary emissions testing. Also, similar to the use of certified wetting agent chemical fume suppressants, no further emissions testing would be required, provided the operator complies with the conditions of the ~~certification~~ approval of the alternative.

14-2 Response: Tier I Tanks are tanks that have a hexavalent chromium concentration of 1,000 parts per million (ppm) or greater and are not considered Tier II or Tier III Tanks. Source testing of numerous process tanks has demonstrated hexavalent chromium concentrations of less than 1,000 ppm may result in emissions greater than 0.2 mg/hr, for tanks that are air sparged, rectified, or heated. Therefore, the potential exists for emissions of concern exist from

tanks with hexavalent chromium concentrations greater than 1,000 ppm. However, there are limited rule requirements imposed on Tier I Tanks, as summarized below:

1. Operate Tier I Tanks indoors (not required to be located in a building enclosure);
2. Clean surfaces around Tier I Tanks weekly; and
3. Minimize dragout around Tier I Tanks by installing drip trays.

14-3 Response: PAR 1469 includes an intermediate Tier II Tank classification that corresponds to tanks operated at temperatures between 140 and 170 degrees Fahrenheit. Tier II Tanks will be allowed to use in-tank controls, such as tank covers and mechanical fume suppressants rather than being required to vent the tank to APC systems. Regarding the comments on limited test data and linear correlation between temperature and hexavalent chromium concentration in previous versions of PAR 1469, please see Response to Comment 1-1.

14-4 Response: Cost estimates for PAR 1469 include costs for APC systems that range from $17/cfm to $23/cfm. Staff obtained capital cost estimates for installation of APC systems from several sources for this analysis. Staff has worked with the MFASC's consultant from Environomics to validate the approach for establishing accurate cost estimates.

14-5 Response: Please see Response to Comment 2-12.

14-6 Response: Please see Responses to Comments 1-7 and 2-3. The use of the 1 ng/m^3 threshold in the Orders for Abatement were supported during the Hearing Board deliberations. PAR 1469 does not include an ambient concentration limit or threshold similar to that in the Orders for Abatement.

14-7 Response: PAR requires Tier II and Tier III Tanks to be operated within a building enclosure. A building enclosure is not the same as a PTE as defined under EPA Method 204. In particular, a building enclosure is not required to be kept under negative pressure and maintain inward face velocity of at least 200 feet per minute (fpm) through all natural draft openings, as is required for a PTE.

Please also see Responses to Comments 1-2 and 6-11.

14-8 Response: Since the comment was received, the Tier II Hexavalent Chromium Tanks have been reclassified into Tier II and Tier III Tanks. The intent of the requirement to close openings within 15 feet of a Tier III Tank, whether natural draft openings or forced air openings, is to ensure that any fugitive emissions that escape the primary control at the tank surface are not emitted as fugitive emissions through a roof vent. Staff has observed Tier III Tanks located in close proximity to tanks that are operated at or near the boiling

temperature of water, where there may be a transport mechanism (i.e. steam that creates an updraft) to ~~emit~~ cause fugitive emissions from a building enclosure through an opening located directly above or very near the tank.

As an alternative to permanently closing openings located within 15 feet of a Tier II or Tier III Tank, facility owner/operators have the option of venting those openings through HEPA controls.

14-9 Response: The current proposal for PAR 1469 allows forced-air openings, provided they are at least 15 feet from the edge of a Tier III Tank. Please see Responses to Comments 6-13 and 6-14.

14-10 Response: Paragraphs (e)(5) and (e)(6) have been modified to add clarity. The proposal includes a definition for building enclosure under paragraph (c)(11). PAR 1469 removes references to breaks, cracks, gaps, and deterioration in the definition of Building Enclosure. Inspection of building enclosure focuses on a breach or large break in the enclosure and removes the references to breaks, cracks, gaps, and deterioration.

14-11 Response: PAR 1469 requires PTEs for facilities that have consistently shown they cannot meet the point source emission requirement or fail to adhere to requirements to shut down a tank that fails specific parameter monitoring provisions. Please also see Response to Comment 1-11.

14-12 Response: The requirements for freeboard height have been removed from PAR 1469.

14-13 Response: Please see Response to Comment 2-11.

14-14 Response: Please see Response to Comment 2-13.

14-15 Response: The currently certified non-PFOS fume suppressants have been demonstrated to degrade at a faster rate than previously certified PFOS fume suppressants. The proposed requirement to test surface tension every third operating day was previously discussed with the stakeholders. Please also see Response to Comment 2-15.

14-16 Response: Please see Response to Comment 1-9.

14-17 Response: The proposal under paragraph (g)(2) allows for the installation of splash guards as a means of compliance with this requirement. The use of splash guards is a reasonable and cost effective solution to capturing overspray for situations where spraying of parts is necessary over a tank.

14-18 Response: Please see Response to Comment 2-18.

VALLEY–TODECO, INC.

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UPS Tracking Number:
1Z 104 3RR 01 6716 2603

February 9, 2018

Mr. Neil Fujiwara
Planning, Rule Development and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

RE: Comments on SCAQMD Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Dear Mr. Fujiwara:

Valley-Todeco, Inc. (Valley-Todeco) is pleased to submit the following comments on the January 19, 2018 preliminary draft rule language of South Coast Air Quality Management District's (SCAQMD) Proposed Amended Rule (PAR) 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations. Our California operations include a facility in Sylmar, California that will be directly impacted by PAR 1469. These comments are in addition to comments submitted on December 12, 2017.

Valley-Todeco is a wholly-owned subsidiary of Arconic Inc. (NYSE: ARNC). Arconic creates breakthrough products that shape industries. Working in close partnership with our customers, we solve complex engineering challenges to transform the way we fly, drive, build and power. Through the ingenuity of our people and cutting-edge advanced manufacturing techniques, we deliver these products at a quality and efficiency that ensure customer success and shareholder value.

Valley-Todeco is generally supportive of the SCAQMD's effort to develop an amended regulation to provide additional control of hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations to ensure that ambient air concentrations of hexavalent chromium remain protective of human health and the environment. We appreciate SCAQMD's continued interest in developing sound regulations that protect public health and the environment while minimizing unnecessary regulatory burdens on industry and offer the following additional comment to the SCAQMD for its consideration into the final amended Rule 1469.

Include a definition for buffing, grinding and polishing activities

In its's earlier comments, Valley-Todeco had expressed concern that the absence of a definition for "buffing, grinding and polishing activities" could result in an interpretation that activities unrelated to chromium electroplating and chromic acid anodizing operations under PAR 1469, e.g. grinding done for facility or equipment maintenance, should be subject to PAR 1469 requirements. Such activities are clearly outside of the stated purposed and applicability of PAR 1469 as stated in sections (a) and (b).

Based on information contained in the presentation slides of the 10th Working Group Meeting for PAR 1469[1], SCAQMD is considering specific conditions to address "wet" buffing, grinding and polishing activities. Valley-Todeco conducts wet grinding operations at its facility, including wet grinding of parts that have gone through chromium electroplating and chromic acid anodizing operations. The wet grinding is done under a flood of coolant that used to carry grindings away from the grinding wheel. Given the flooding coolant, there is no potential to generate particulate emissions with wet grinding. PAR 1469 section (f) already contains housekeeping provisions that include the cleanup of spilled materials and potentially contaminated surfaces. These provisions should ensure that drying and tracking of spilled coolant and grindings is prevented. Valley-Todeco is concerned that inclusion of wet grinding within the scope of buffing, grinding and polishing operations will result in additional costs for enclosures with no commensurate environmental benefit. 15-1

SCAQMD has previously considered wet grinding and maintenance grinding in its development and adoption of Rule 1430 – Control of Emissions from Metal Grinding Operations at Metal Forging Facilities and concluded that these were outside of the scope of that rule. The applicability section of Rule 1430 states "[T]his rule does not apply to metal grinding or metal cutting conducted under a continuous flood of metal removal fluid, or grinding activities conducted to maintain or repair equipment at the facility."

Therefore, Valley-Todeco recommends that PAR 1469 be revised by adding a definition for buffing, grinding, and polishing operations to read as follows:

> BUFFING, GRINDING, OR POLISHING means the buffing, grinding or polishing of parts that have gone through a process that includes one or more Tier I or Tier II Hexavalent Chromium-Containing Tanks. This does not include buffing, grinding or polishing conducted under a continuous flood of metal removal fluid or conducted to maintain or repair equipment at the facility.

Adding this definition is consistent with other SCAQMD rules and will provided the needed clarification to the intent of PAR 1469.

Conclusion

Valley-Todeco appreciates the opportunity to comment on PAR 1469. We are hopeful that our comments will help SCAQMD to further improve PAR 1469 and create a final amended rule that incorporates flexible and cost-effective compliance provisions for all affected facilities.

[1] Working Group Meeting #10, slide 19. http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1469/par1469_wg10_020618.pdf?sfvrsn=6 Accessed February 8, 2018.

Should you require clarification or further discussion of our comments, please contact Dean Richardson (Valley-Todeco's environmental manager) at dean.richardson@Arconic.com or (818) 281-5342.

Sincerely,

Kristin March
Director of Operations
Valley Todeco, Inc.
Arconic Fastening Systems
Kristin.March@arconic.com

Responses to Comment Letter from Valley Todeco (submitted 2/9/18)

15-1 Response: An exemption has been added under paragraph (r)(2) that addresses the requirements to conduct all buffing/grinding/polishing operations within a building enclosure, and to install a barrier between the buffing/grinding polishing area and tank area, when operated under a continuous flood of metal removal fluid. Please also see Response to Comment 10-1.

ITAR
ISO 9001
AS 9100
ISO/TS 16949
Nadcap-CP
FAA Repair Station
CERT. #MZTR048L

msi
METAL SURFACES, INC.
PRECISION ENGINEERED PLATING

February 22, 2018

Eugene Kang
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Reference: PAR 1469 - HEXAVALENT CHROMIUM EMISSIONS FROM CHROMIUM ELECTROPLATING AND CHROMIC ACID ANODIZING OPERATIONS, COMMENTS ON PORTIONS OF JANUARY 19, 2018, DRAFT RULE

We are writing to reiterate & expand on our verbal comments at the Stationary Source meeting on February 16, 2018 on PAR 1469 and from site visits at MSI. These comments are specifically for MSI but some may have application to other plating facilities.

1. Our major difficulty with PAR 1469 is section (e) (5) "Requirements for Building Enclosures". You & your staff have seen our facility but we are explaining our situation in more written detail so that others can understand our problem with the PAR (draft January 19, 2018.

MSI has one Hex Cr plating tank already permitted & controlled with a HEPA system. We have two small 24" x 30" chromate tanks that would qualify as a Tier II Cr tank due to T > 140 F. However, these 3 tanks are located in our Main Shop in building 1 which also contains about 180 tanks for multiple processing operations (Cd, Zn, Ni, Cu, Pb etc) all permitted under various SCAQMD rules (including R1426). Building 1 also houses our Precious Metal Department which includes about 100 tanks & is totally isolated from the Main Shop. 16-1

Building 1 is about 100' W x 200' L x 20' H. It was designed & built over 50 years ago and includes ventilated skylights, convection exhaust ambient air vents, fan & motor operated exhaust ambient air vents & other roof & wall openings. MSI has added multiple other exhaust ventilation systems which exhaust through the roof for specific process tanks to remove heat, fumes, & excessive moisture from the work space.

Overall we estimate that building 1 exhausts about 200,000 cfm of air from the work space. MSI does not have the resources, nor does it make sense to add HEPA control systems to all this volume of air to capture fugitive Cr emissions from one plating tank plus two small chromate tanks.

Metal Surfaces, Inc. 6060 Shull Street, Bell Gardens, CA 90201 Ph: (562)927-1331 Fax: 562-927-0692 www.metalsurfaces.com

We therefore suggest that (e) (5) be deleted or applicable only to roof exhausts within 15' – 20' of Tier II chrome tank. 16-1 (cont'd)

2. Section (e) (8) is too narrow in its scope with reference to OSHA regulations. We suggest it include reference to **conflicting requirements of the Universal Fire Code, Universal Building Code, Industrial Ventilation (A Manual of Recommended Practice for Design), or just good engineering practice for the design of ventilation systems for Industrial buildings utilized by the architects/mechanical engineering societies.** 16-2

3. Two additional sections of PAR 1469 require some clarification/modification: 16-3

   a. Section (f) (8) "Abatement of Roof Surfaces" is totally overreaching & would be difficult to enforce fairly. We suggest (f) (8) be deleted or rewritten to simplify the requirements.

   b. Section (g) (7) "Prohibited Compressed Air" needs to be rewritten. If the intent of this provision is to prevent the compressed air cleaning from creating stray air currents around a Tier I or II tank, then change the word "areas" in the 3rd & 4th line to "tank". If the intent is to prevent the liquid particles blown off the parts from becoming airborne or collecting on the floor, then require a shield behind the sprayed parts to stop the liquid particles.

If you need clarification of any our comments, please call me.

Sincerely,

Sam R Bell /Charles K Bell
Metal Surfaces, Inc.

Metal Surfaces, Inc. 6060 Shull Street, Bell Gardens, CA 90201 Ph: (562)927-1331 Fax: 562-927-0692 www.metalsurfaces.com

Responses to Comment Letter from Metal Surfaces Incorporated (submitted 2/22/18)

16-1 Response: SCAQMD staff has visited Metal Surfaces Inc. on multiple occasions throughout the rulemaking process. Although there is currently no source-specific toxics rule that prohibits the ventilation configuration at MSI, the SCAQMD staff has expressed concern that there are multiple non-Rule 1469 tanks that are currently ventilated to the ambient air. Many of these tanks will likely be covered under PAR 1426 which covers non-hexavalent chromium plating tanks such as cadmium, nickel, zinc, lead, and copper. Regarding the comment on roof vents, paragraph (e)(4) requires roof openings located within 15 feet from the edge of any Tier II or Tier III Tank to be closed or controlled. Please also see Response to Comment 6-13.

16-2 Response: Paragraph (e)(6) has been revised to allow consideration of other municipal codes or requirements directly related to worker safety. This will allow the necessary flexibility. Please also see Responses to Comment 5-1 and 18-10.

16-3 Response: Paragraph (f)(8) has been revised to apply to cutting of roof surfaces of building enclosures. Requirements include 1) that affected roof surface areas be cleaned by HEPA vacuum prior to cutting, 2) fugitive emissions be minimized by using a method(s) such as constructing a temporary enclosure and HEPA vacuuming, and 3) notifying the Executive Officer at least 48 hours prior to the commencement of any work being performed by calling 1-800-CUT-SMOG.

Regarding the comment on the intent of the requirement for compressed air cleaning, please see Responses to Comments 2-18 and 8-11.

From: Lisa Lappin [mailto:ljtutoring@gmail.com]
Sent: Thursday, February 22, 2018 11:17 PM
To: Wayne Nastri <wnastri@aqmd.gov>; Susan Nakamura <SNakamura@aqmd.gov>; Philip Fine <pfine@aqmd.gov>; Dr. Joseph K. Lyou <jlyou@aqmd.gov>; Rachel Uranga <ruranga@scng.com>; Tony Barboza <tony.barboza@latimes.com>; Jane Williams <dcapjane@aol.com>; Clerk of Board <Front_PC@aqmd.gov>; Liza Tucker <liza@consumerwatchdog.org>; Laurie Guillen <laurieguillen1987@gmail.com>; Ho, Jessica <jho@bos.lacounty.gov>; Magdalena Guillen <bluegirl_76@hotmail.com>; Maya Golden-Krasner <mdgoldenkrasner@gmail.com>; Sonia Olmos <sonia4paramountschools@gmail.com>; Public Advisor <publicadvisor@aqmd.gov>; Rebecca Plevin <rebecca.plevin@gmail.com>; Robina Suwol <calisafe@earthlink.net>
Subject: Public Comment on rule 1469

Dear Mr. Nastri and SCAQMD decision makers,
The following letter was signed by 965 petitioners asking for you to put the needs of low-income communities ahead of the profits of 117 companies. Each petitioner represents many more who can not (children) or will not (adults without documentation or afraid of retaliation) sign. Why should the profit margin for 117 companies take precedence over the critical health needs of numerous communities throughout Southern CA impacted by hexavlent chromium that is endangering human lives?

The petition and its signatures sent to all of you this evening should be entered into public comment. For the record, it reads as follows:

We, the undersigned, call on Mr. Wayne Nastri, CEO of South Coast Air Quality Management District (SCAQMD), to direct staff at SCAQMD to revise wording on proposed rule 1469, chrome plating and anodizing, in order to require that the 117 companies using hexavalent chromium be required to conduct continuous outdoor ambient air monitoring and install state of the art pollution control systems including HEPA filtration and negative air with total enclosure. We can not wait for a company to fail source testing. We needs these protections now! 17-1

Furthermore, we ask that SCAQMD seriously consider incentives for companies to use alternatives to the highly toxic chemical, hexavalent chromium, that is claiming the lives of innocent children whose immune systems are not strong enough to withstand the assault of these deadly chemicals. Europe has already banned hexavalent chromium for decorative uses and non essential purposes, requiring strict procedures that their defense industry must follow before getting approval for its use. We want California to join Europe in being a leader in the movement toward a less toxic environment for communities. There are solutions waiting to be discovered but your agency is not taking a lead in finding them and making them happen. 17-2

We believe that the health and safety of our children should be the priority for Southern California's air regulatory agency. Your agency was created to protect our region from breathing toxic air. SCAQMD decision makers, we are counting on all of you to listen to our cry for help. Please do your job and put the well being of the public, especially our children, ahead of the needs and desires of a long unregulated metal industry pushing for a weakened rule. Our children are nonnegotiable.

Please do your job and put the well being of the public, especially our children, ahead of the needs and desires of a long unregulated metal industry pushing for a weakened rule. Our children are nonnegotiable. They are our future. Protect them Mr. Nastri. 17-3

Responses to Comment Letter from Lisa Lappin (submitted 2/22/18)

17-1 Response: Please see Response to Comment 1-7.

PAR 1469 contains additional requirements which will reduce hexavalent chromium emissions including the ~~need to~~ install<u>ation of</u> air pollution control devices, where triggered by PAR 1469 requirements.

17-2 Response: Please see Response<u>s</u> to Comment<u>s 3-8 and</u> 9-2.

17-3 Response: Thank you for your comment. ~~No response is necessary.~~<u>Please see Responses to Comments 9-1 and 9-2.</u>

From: Bruce Greene [mailto:Bruce.Greene@hmfgroup.com]
Sent: Tuesday, February 27, 2018 10:08 AM
To: Neil Fujiwara <nfujiwara@aqmd.gov>
Cc: Eugene Kang <EKang@aqmd.gov>; Susan Nakamura <SNakamura@aqmd.gov>
Subject: Hixson Comments on PAR 1469

Neil,

Sorry for the late email but wanted to get you our comments on the latest version of PAR 1469 prior to the meeting.

Please see attached.

If you have any questions or comments, please feel free to contact me.

Thanks

Bruce Greene
Environmental/Health & Safety

Hixson Metal Finishing
829 Production Place
Newport Beach, CA 92663
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Supporting Flight Excellence

PAR 1469 Review and Comments

(c) (23) – Enclosure Opening – This indicated that stacks for add on air pollution control devices subject to this rule are not considered an enclosure opening. In our case, we have a number of ventilation hoods that draw ambient air from the processing areas in order to create the ventilation required to make the PTE. These vents are directed to a wet scrubber (no HEPA) and are within 15 feet of some Tier I and Tier II tanks. We feel that that these should be exempted if used or located within a PTE and not be considered Enclosure Openings. 18-1

(c) (28) – Freeboard Height – As written, if you were using a foam blanket to control emissions, then your freeboard could be 4 – 6 inches of foam blanket along with the 8 inches that you are looking for on the freeboard. This could create a freeboard to solution level of 12 to 14 inches. 18-2

(c) (36) – Low Pressure Spray Nozzle – There should be a distinction from spay nozzles used in open space and those used inside a tank where the entire part and rack are lowered completely into the tank for rinsing. 18-3

(c) (59) – Tier II Tanks – the limit of 100 ppm at or above 160 degrees concerns me. In the past we have had some rinse tanks approach close to this limit. It would all depend upon when this tank would be sampled. There should be an exclusion of all rinse tanks since a majority of the time the tanks would be well below the 100 ppm (0 to 10 ppm from past testing). 18-4

(e) (1) – Building enclosures – If the tanks are located within a negative pressure PTE within a building enclosure or the building enclosure is a negative pressure PTE this should not be required. EPA Method 204 allows for 5% openings. 18-5

(e) (2) – Building enclosure openings – If the tanks are located within a negative pressure PTE within a building enclosure or the building enclosure is a negative pressure PTE this should not be required. EPA method 204 requires an inward flow into the building or PTE in excess of 200 fpm. 18-6

(e) (3) – Building enclosure openings facing sensitive receptors – If the tanks are located within a negative pressure PTE within a building enclosure or the building enclosure is a negative pressure PTE this should not be required. EPA method 204 requires an inward flow into the building or PTE in excess of 200 fpm. 18-7

(e) (4) – Roof Openings – We assume that these openings will not include the intakes for additional ventilation systems that are used to vent air through a wet (non-HEPA) scrubber in order to capture fugitive acid emissions and create the required ventilation for a PTE. 18-8

(e) (5) – Same as (e) (4) above 18-9

(e) (8) – This indicates prior to initial startup. What if the line is already in operation? 18-10

(f) (1) – Storage – This indicates "other substances that may contain hex chrome". Would this mean that all concrete material during any building/construction activities needs to be stored in an enclosed 18-11

storage area? Would this include stainless steel and other metals (to include parts from customers) that contain hex chrome? This should be rewritten to only pertain to materials that are used in the process of chromium plating or chromic acid anodizing. 18-11 (cont'd)

(f) (5) – Containers – A number of times these container will be reused or recycled and per other regulations are required to be triple rinsed. This section should include rinsing/cleaning operations. 18-12

(g) (1) (A) – Automated Lines – Processing solution will be dripped onto the trays, so it would be impossible to clean in a way that no visible dust or residue on the drip trays could be seen at any time. A periodic cleaning schedule should be indicated as once per day as you have indicated in (g) (2) (A). 18-13

(h)(4)(A)(iv) and (v) – The parameters as forth in this section would still penalize a processor if there were multiple small tanks that were vented to a single scrubber. In our case the small tanks in building 3, using the requirements as indicated in section (h)(4)(A)(v) would give us a emission limit of 0.18596 mg/hr-ft2 since we are above the 5,000 cfm and in a PTE. Would this not push an operator to instead install 2 smaller scrubbers that are rated less than 5,000 cfm and therefore be given an emission limit of 0.2 mg/hr-ft2 per scrubber or 0.4 mg/hr-ft2 total. This is gaming the system. This section also does not address how electrolytic and non-electrolytic tanks should be tested if vented to the same scrubber. 18-14

(h)(5) – Ventilation Design – If an alternative design is approved by the executive officer, the design should be allowed. Can we add at the end of the section "or as approved by the Executive Officer" 18-15

(l)(1) – Chemical Fume suppressants – Question. Can these suppressants be used on non-electrolytic tanks to comply with some provisions as indicated in Alternative Compliance Methods and those using Trivalent chromium tanks? If this is the case then this section only covers electrolytic tanks. 18-16

Responses to Comment Letter from Hixson Metal Finishing (submitted 2/27/18)

18-1 Response: The definition for Enclosure Opening has been revised and excludes stacks, ducts, and openings to accommodate stacks and ducts.

18-2 Response: The requirements for freeboard height have been removed from PAR 1469.

18-3 Response: PAR 1469 does not require low pressure spray nozzles to be utilized when the spray nozzle is used inside a tank and where the entire part and equipment are lowered completely into the tank for rinsing.

18-4 Response: A Tier II Tank is defined under paragraph (c)(58) as: *"a tank that is operated or permitted to operate by the SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified in Appendix 10 and is not a Tier III Hexavalent Chromium Tank"* Under Appendix 10, the hexavalent chromium concentrations for a Tier II Tanks must remain in the concentration range for the specified temperature and be required to comply with paragraph (h)(4). Tanks that exceed hexavalent chromium concentration for a corresponding temperature are considered a Tier III Tank and must comply with subparagraph (h)(4)(A). The following tank concentrations define a Tier II Tank, depending on temperature:

Temperature (° F)	**Tier II Tank Hexavalent Chromium Concentration (ppm)**	**Tier III Tank Hexavalent Chromium Concentration (ppm)**
140 to <145° F	5,200 to <10,400	≥10,400
145 to <150° F	2,700 to <5,500	≥5,500
150 to <155° F	1,400 to <2,900	≥2,900
155 to <160° F	700 to <1,600	≥1,600
160 to <165° F	400 to <800	≥800
165 to <170° F	180 to <400	≥400
≥170° F	≥100 to <200	≥200

~~**Temperature (° F)**~~	~~**Tier II Tank Concentration (ppm)**~~	~~**Tier III Tank Concentration (ppm)**~~
~~≥ 140 to <145° F~~	~~≥ 5,160 to <10,320~~	~~≥ 10,320~~
~~≥ 145 to <150° F~~	~~≥ 2,720 to <5,450~~	~~≥ 5,450~~
~~≥ 150 to <155° F~~	~~≥ 1,450 to <2,890~~	~~≥ 2,890~~
~~≥ 155 to <160° F~~	~~≥ 763 to <1,525~~	~~≥ 1,525~~
~~≥ 160 to <165° F~~	~~≥ 390 to <780~~	~~≥ 780~~
~~≥ 165 to <170° F~~	~~≥ 180 to <360~~	~~≥ 360~~
~~≥ 170° F~~	~~≥ 100 to <200~~	~~≥ 200~~

18-5 Response: PAR 1469 requires 3.5% building enclosure openings as a fraction of the building envelope (i.e. area of walls, floor and horizontal projection of roof) for both a building enclosure and a PTE.

Please also see Response to Comment 6-11.

18-6 Response: PAR 1469 paragraph (e)(2) requires ". . .*that any building enclosure openings that open to the exterior and are on opposite ends of the building enclosure where air movement can pass through are not simultaneously open except during the passage of vehicles, equipment or people, not to exceed two hours per operating day, by closing. . ."* or using a specified method, including automated doors, overlapping plastic flaps, vestibule, airlock system, etc. This requirement is applicable only to building enclosures, not to permanent total enclosures.

18-7 Response: PAR 1469 paragraph (e)(3) requires that *"Except for the movement of vehicles, equipment or people, close any building enclosure opening or use any of the methods listed in subparagraphs (e)(1)(A) through (e)(1)(E), that directly faces and opens towards the nearest: (A) Sensitive receptor, with the exception of a school, that is located within 100 feet, as measured from the property line of the sensitive receptor to the building enclosure opening; or (B) School that is located within 1,000 feet, as measured from the property line of the school or early education center to the building enclosure opening."* This requirement is applicable only to building enclosures, not to permanent total enclosures. The definition of school has been modified to incorporate early education centers and remove the reference to unimproved land at the school.

18-8 Response: Please see Response to Comment 6-13.

18-9 Response: Please see ~~r~~Response to ~~c~~Comment 18-8.

18-10 Response: PAR 1469 requires facilities existing or already in operation to submit the written notification that indicates a conflict between PAR 1469 requirements and OSHA, CAL-OSHA, or other municipal codes or agency requirements directly related to worker safety for review and approval no later than [30 day after Date of Rule Adoption].

18-11 Response: The requirement to store other substances that may contain hexavalent chromium in a closed container in an enclosed storage area when not in use was a previous requirement. PAR 1469 did not amend the requirement. This requirement only pertains to materials that are used in the process of chromium electroplating or chromic acid anodizing, not to concrete or stainless steel.

18-12 Response: ~~An~~One intent of PAR 1469 is to reduce and/or eliminate fugitive hexavalent chromium emissions from ~~requires that~~ housekeeping activities ~~do not result in fugitive emissions~~. Containers that contain chromium-containing waste material shall be kept closed at all times except when being filled or emptied. Containers that are being rinsed do not contain hexavalent chromium waste material and therefore, are not subject to this provision. ~~have been rinsed and cleaned in a responsible manner such that hexavalent chromium emissions are not emitted from the rinsing and cleaning process, are subject to the rule if they contain the above-mentioned waste material~~Paragraph (f)(5) allows the operator to identify the appropriate methods to ensure wastes generated from housekeeping activities do not lead to fugitive emissions.

18-13 Response: ~~The requirement~~ PAR 1469 requires that facilities ~~to~~ keep trays or other containment equipment such that the liquid is captured and returned to the tank(s), and cleaned such that there is no accumulation of visible dust or residue on the drip tray or other containment equipment. PAR 1469 adds an additional requirement of prohibiting the accumulation of residue on the drip tray or other containment equipment. Please also see Responses to Comments 8-10 and 21-5.

18-14 Response: The emission limit under clause (h)(4)(A)(iii) is specific to air pollution control equipment that does not serve electrolytic tanks and the ventilation system has a maximum exhaust rate of 5,000 cfm or less. Clause (h)(4)(A)(iv) was added at the request of the industry, specifically to address situations where electrolytic tanks are vented to the same air pollution control as non-electrolytic tanks. As such, it was necessary to develop an emission factor that reflects emissions coming from both sources. The emission factor under clause (h)(4)(A)(iv) was developed with the input of the industry. The proposed language allows facility operators to design air pollution control for electrolytic as well as non-electrolytic tanks to provide flexibility in engineering a solution to unique issues at that facility, while meeting the rule limits.

18-15 Response: PAR 1469 has been modified to allow owners or operators to have an alternative design if approved by the Executive Officer.

18-16 Response: PAR 1469 allows facilities to utilize alternative methods to control hexavalent chromium emissions under subsection (i) with the approval of the Executive Officer.

The Boeing Company
4000 Lakewood Blvd
Long Beach, CA 90808

March 01, 2018

SCAQMD
21865 E. Copley Drive
Diamond Bar, CA 91765

ATTN: Neil Fujiwara
Planning, Rule Development and Area Sources

Re: SCAQMD Rule 1469 Proposed Amendments

Thank you for the opportunity to provide comments relating to the proposed amendments to SCAQMD Rule 1469 (Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations). Boeing requests that the following changes/clarifications be incorporated into the proposed amendments to the rule:

- Proposed Amended Rule 1469 contains a number of new requirements that appear to be in force immediately upon adoption of the proposed rule. These include the following:
  - (f)(4): Cleaning, used an approved cleaning method – Sites may have to purchase new equipment, such as HEPA vacuums, to comply with requirement. 19-1
  - (f)(6): Cleaning floors within 20 feet of buffing, grinding, or polishing workstations – Sites may have to purchase new equipment, such as HEPA vacuums, to comply with requirement. 19-2
  - (g)(2)(B): With respect to low pressure water nozzles, sites may have to purchase and install new equipment to meet requirement. 19-3
  - (g)(3): New labels for each tank will be required to reflect additional information that is specified. 19-4
  - (g)(7): Installation of barriers to separate air cleaning or drying operations from process tank lines 19-5
  - (n): Complete revision of existing Operation & Maintenance Plans to reflect new rule requirements 19-6
  - Appendix 4 (Table 4-1): Installation of temperature gauges and temperature data loggers will be required, as well as a new weekly inspection requirement for collection slots and push air manifolds. 19-7

A number of new requirements contained in the rule have been granted additional time to achieve compliance. Facilities must be given adequate time upon rule adoption to assure that the above-mentioned requirements, as well as other requirements contained within the proposed rule, are put into place in an orderly fashion that allows the facility to assure compliance with the final rule. The District should allow facilities 90 days from date of rule adoption to implement any new requirements contained in the proposed rule. 19-8

The Boeing Company
4000 Lakewood Blvd
Long Beach, CA 90808

- With respect to the proposed language in (f)(4), request that the proposed language be modified to reflect that cleaning only be performed each operating day, rather than the current "daily". 19-9
- Appendix 9 (Smoke Tests): The language in (3) Testing Conditions, does not reflect the updated language incorporated into (k)(6)(B)(7). Language in Appendix 9 (3) should be updated to reflect this language. 19-10

Boeing looks forward to continuing to work with District staff in the development of the proposed amendments to SCAQMD Rule 1469. If you should have any questions or require additional information, please do not hesitate to contact me.

William Pearce
Senior Environmental Engineer
Environmental Services
Environment, Health & Safety

Responses to Comment Letter from Boeing (submitted 3/1/18)

19-1 Response: The requirement to clean surfaces is an existing requirement under Rule 1469 (c)(4)(D) and would continue to be required under PAR 1469. As such, it is expected that facilities are currently using one or more approved methods to clean the areas described under PAR 1469 (f)(4), and no new equipment is expected to be required to clean surfaces under PAR 1469. Please also see Response to Comment 1-9.

19-2 Response: Acceptable cleaning methods to clean floors within 20 feet of a buffing, grinding, or polishing workstation include HEPA vacuuming, hand wiping with a damp cloth, and wet mopping, and alternative cleaning methods as approved by the Executive Officer. As such, PAR 1469 provides sufficient flexibility to comply using methods which do not require the purchase of new equipment and can be done immediately upon adoption of PAR 1469.

19-3 Response: A provision has been added to subparagraph (g)(2)(B) for low pressure nozzles to be used in lieu of splash guards and to allow compliance within 90 days after adoption of PAR 1469. This will provide facilities the time for purchase and installation of any new equipment necessary to meet this provision.

19-4 Response: A provision has been added to paragraph (g)(3) to allow compliance with the requirement to relabel tanks within 60 days after adoption of PAR 1469.

19-5 Response: The referenced requirement for barriers to separate air cleaning or drying operations from process tank lines is an existing requirement in Rule 1469 (c)(4)(F). The requirement has been clarified under PAR 1469 to include all tanks regulated under the proposal, including Tier II and Tier III Tanks.

19-6 Response: Paragraph (n)(9) requires a facility's operation and maintenance plan to be revised within 90 days after rule adoption, and made available upon request to the Executive Officer to reflect the incorporation of the inspection and maintenance requirements for a device or monitoring equipment that is identified in Table 4-2 and Table 4-3 of Appendix 4.

19-7 Response: Paragraph (n)(4) has been revised to allow up to 90 days to install temperature gauges and temperature data loggers.

19-8 Response: For the requirements noted in responses to the previous comments, additional time has been provided for compliance, or an explanation has been given regarding the reasons why additional time is not necessary for compliance.

19-9 Response: The language under paragraph (f)(4) has been modified to require weekly cleaning.

19-10 Response: Appendix 9 has been amended to reflect the requested language.

msi
PRECISION ENGINEERED PLATING

ISO 9001-2000
AS 9100
Nadcap
FAA

March 1, 2018
Via Scan/Email and
First Class Mail

Eugene Kang
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Re: PAR 1469 HEXAVALENT CHROMIUM EMISSIONS FROM CHROMIUM ELECTROPLATING AND CHROMIC ACID ANODIZING OPERATIONS, ADDITIONAL COMMENTS ON PORTIONS OF JANUARY 19, 2018, AND FEBRUARY 25, 2018, DRAFT RULE

Dear Mr. Kang:

While understanding time is short, we are writing to suggest a "deminimis" provision be included in Subdivision (i) of PAR 1469 regarding small chromate tanks (Tier II or III) that are seldom utilized. For example, we have one tank that fits this description as we operate the tank less than ten (10) days per year. The rest of the year, the chromate solution is cold and covered or the solution is drummed and the tank is empty. We suspect other companies in the District may have similar situations with minimal use tanks. These tanks allow us to meet our customer's specifications and needs. For our tank, the business volume/revenue cannot begin to justify the cost for hooding, ventilating, controlling with a HEPA system, conducting source tests, etc. 20-1

We would like to see an exemption from PAR 1469 provisions (h)(2), (h)(4), and Appendix 7 for these tanks (as an example, tanks only used up to thirty (30) production days per year) as long as all other provisions of PAR 1469, have been met. Less stringent than HEPA control technics (for instance, fume suppressants, polyballs, or other "in tank" techniques) should meet the SCAQMD objectives for this rule.

METAL SURFACES, INC. 6060 Shull St., Bell Gardens, CA 90201-6297. Mail: PO Box 5001, Bell Gardens, CA 90202-5001.
Tel: (562)-927-1331, Fax (562)-927-0922 www.metalsurfaces.com

Eugene Kang
South Coast Air Quality Managment District
March 1, 2018
Page 2

We do appreciate the District's consideration given to this suggestion, to the prior comments referred to in our February 22, 2018, letter, and as discussed at the 11th Working Group Meeting on February 27, 2018.

Thank you for your consideration. Please contact us with questions, suggestions, or instructions.

Sincerely,

Charles K. Bell
Metal Surfaces, Inc.

cc: Neil Fugiwara
Wesley Turnbow - MFASC
Brian Ward - AAA Plating
Samuel R. Bell - MSI
George Petrasek - MSI
(via scan/email)

METAL SURFACES, INC., 6060 Shull St., Bell Gardens, CA 90201-6297 Mail: PO Box 5001, Bell Gardens, CA 90202-5001
Tel: (562) 927-1331, Fax: (562) 927-0692 www.metalsurfaces.com

Responses to Comment Letter from MSI Precision Engineered Plating (submitted 3/1/18)

20-1 Response: Uncontrolled chromate tanks that are designated as Tier II or Tier III Tanks under PAR 1469 have the potential for emissions that may be significant. Therefore, the request to provide a low usage exemption based on operation of less than 30 production days per year was not included in PAR 1469.

From: Bruce Greene <Bruce.Greene@hmfgroup.com>
Sent: Thursday, March 8, 2018 2:19 PM
To: Neil Fujiwara; Eugene Kang
Cc: Susan Nakamura
Subject: Hixson Metal Finishing - PAR 1469 Comments
Attachments: PAR 1469 Review and Comments_030818.docx

Neil,

Please see the attached for comments on the proposed draft rule language of Rule 1469 as provided on February 25, 2018.

If you have any comments or questions, please feel free to contact me.

Thanks

Bruce Greene
Environmental/Health & Safety

Hixson Metal Finishing
829 Production Place
Newport Beach, CA 92663
Direct: 949.722.3459
Office: 800.900.9798
www.HMFgroup.com

Supporting Flight Excellence

PAR 1469 Comments

(d)(5) – I may be reading this wrong but as written this prohibits running any tier I – III process tank within a building enclosure. Shouldn't this prohibit running a tanks unless it is within a building enclosure? 21-1

(e)(2) – Building Enclosure Openings - If the building enclosure is considered a PTE with negative air, this provision should not apply. As per EPA Method 204 a minimum of 200 fpm inward flow velocity must be maintained. 21-2

(e)(3) – Building Enclosure Openings - If the building enclosure is considered a PTE with negative air, this provision should not apply. As per EPA Method 204 a minimum of 200 fpm inward flow velocity must be maintained. 21-3

(f)(1) – Storage – As written with the words "or other substances that may contain hexavalent chromium" this would technically require all concrete, stainless steel, parts/assemblies that have been plated, liquid chromic waste, etc. to be stored in a closed container within a closed storage area. This should be more closely defined to include only make up chemicals or chemicals used in the plating process. 21-4

(g)(1)(A) – Automated Lines, Drip Trays – There is no way to completely eliminate the dripping of process solutions on the drip trays and therefore you cannot keep them clean at all time. A time interval should be provided in order to clean the trays as in once per day. 21-5

(h)(4)(A)(iii) and (iv) – The parameters as forth in this section would still penalize a processor if there were multiple small tanks that were vented to a single scrubber. In our case the small tanks in building 3, using the requirements as indicated in these sections would give us an emission limit of 0.18596 mg/hr since we are above the 5,000 CFM. Would this not push an operator to instead install 2 smaller scrubbers that are rated less than 5,000 CFM and therefore be given an emission limit of 0.2 mg/hr per scrubber or 0.4 mg/hr total. This is gaming the system. Also, as written, since 1 of my tanks is electrolytic, this would mean that the emissions from all 8 of my tanks (Tiers I, II and III since permitted) that are controlled by the scrubber would have to meet the 0.0015 mg/amp hr emission limit combined. This would allow a smaller shop that may only have 1 or 2 scrubbed tanks the same emissions limits but with far fewer operating tanks. This would also push operators not to scrub Tier I and Tier II tanks since the emission limit would be shared with all scrubbed tanks. 21-6

(h)(6) – Ventilation Design - Can the statement "or as approved by the executive officer" be added at the end 21-7

(k)(2)(c) – This refers to appendix 10. I think it should be appendix 9 21-8

(k)(6)(A)(i) – Can we add "or as approved by the executive officer" at the end 21-9

Appendix 2, line 16 – The 5% allowance should be noted if the compliance status report covers a PTE. 21-10

Responses to Comment Email from Hixson Metal Finishing (submitted 3/8/18)

21-1 Response: Paragraph (d)(5) requires *"*Operate any Tier II or Tier III Hexavalent Chromium Tank within a building enclosure that meets the requirements of subdivision (e)*"*. The intent is that all Tier I, Tier II, and Tier III Tanks must be operated within an enclosure; however, only Tier II and Tier III Tanks are subject to the building enclosure requirements as described in subdivision (e).

21-2 Response: The requirements to limit cross draft under paragraph (e)(2) are applicable only to building enclosures, not to PTEs.

21-3 Response: The requirements to close doors facing sensitive receptors and schools under paragraph (e)(3) are applicable only to building enclosures, not to PTEs.

21-4 Response: The language under paragraph (f)(1) is existing language in Rule 1469(c)(4)(A) and no amendments are proposed. Please also see Responses to Comment 8-9 and Comment 18-11.

21-5 Response: The language under paragraph (g)(1) is existing language in Rule 1469(c)(4)(H)(i) and no amendments are proposed.

21-6 Response: The emission limit under clause (h)(4)(A)(iii) is specific to air pollution control equipment that does not serve electrolytic tanks. Clause (h)(4)(A)(iv) was added at the request of the industry stakeholders, specifically to address situations where electrolytic tanks are vented to the same air pollution control as non-electrolytic tanks. As such, it was necessary to develop an emission factor that reflects emissions coming from both sources. The emission factor under clause (h)(4)(A)(iv) was developed with the input of industry stakeholders. The proposed language allows facility operators to design air pollution control for electrolytic as well as non-electrolytic tanks to provide flexibility in engineering a solution to unique issues at that facility, while meeting the rule limits.

21-7 Response: Please see Response to Comment 8-16.

21-8 Response: The reference in subparagraph (k)(2)(C) has been revised ~~in~~ to Appendix 9.

21-9 Response: Executive Officer discretion is already incorporated into this language and no further revision is required.

21-10 Response: Under PAR 1469, building enclosures as well as PTEs are required to meet a limit of 3.5% building openings as a ratio of the building envelope. Therefore, no modification to Appendix 2 is necessary.

Comment and Response to Email from Felipe Aguirre dated 3/15/18

Comment Read into the Record at 3/16/18 Stationary Source Committee Meeting

Comment: I wish to ensure AQMD places monitors at all schools that are 1500 feet from the source of hexavalent chromium such as the Heliotrope Elementary School here in Maywood which is located across the street from Cooks Induction Heating.

Response: Cook's Induction Heating is not a Rule 1469 facility, but rather a heat treating facility that would be subject to a future rule for heat treating.

From: Universal Metal Plating <universalmetalplating@verizon.net>
Sent: Wednesday, April 4, 2018 7:41 PM
To: Neil Fujiwara
Subject: Rule 1469

Hello Neil

I just wanted to clear up some information about the working group meeting this morning.

1. The phase out for hexavalent chromium for decorative plating. 22-1
    a. Is this for all decorative plating shops to move to trivalent chromium?
    b. Or if you have H.E.P.A. filter in place will you be able to continue doing business?

2. When fume suppressants are to be eliminated. 22-2
    a. If you have pollution controls in place will you still be able to use hex chrome?
    b. By 2021 will it matter how many amp hours or how few amp hours used that you will still be able to use hex chrome?

By 2021 will amp hours matter on if you need to have pollution controls or will any decorative plating shop need to have controls installed no matter the amp hours used? 22-3

Will hex chrome eventually be phased out in Southern California? 22-4

Will it matter if a decorative plating shop have a permanent total enclosure to phase out hex chrome? 22-5

I understand that most of the problems are coming from the hex chrome anodize shops but this is one of the first time that decorative shops have been called to phase out hex chrome. Is there anything that can be done to continue using hex chrome or is it being phased out completely? 22-6

Just a few questions I have if you can please answer them when you have time.

Thank you,

Jose

Jose De Jesus Martinez
Universal Metal Plating
1526 W. First St.
Azusa, CA 91702
(626) 969-7932 / (626) 969-7931
admin@universalmetalplating.com
http://www.universalmetalplating.com

Responses to Comment Email from Universal Metal Plating (submitted April 4, 2018)

22-1 Response: As discussed in PAR 1469 Working Group #12, staff's recommendation is to conduct a pilot study and investigate available technology options for alternatives to hexavalent chromium for all applications, including decorative chromium. Trivalent chromium electroplating is an alternative that may be recommended. At this time, it is not possible to predict how extensive the phase-out would be, if any, or what other control measures might be allowed in lieu of a complete phase-out. A phase-out if proposed may allow the use of hexavalent chromium under specific conditions or it may be a complete prohibition.

22-2 Response: PAR 1469 does not prohibit the use of hexavalent chromium. If a wetting agent chemical fume suppressant is not certified, the owner or operator may install an add-on air pollution control device or use an SCAQMD approved alternative that is equally effective as the emission limit required for a wetting agent chemical fume suppressant. While PAR 1469 does not limit the amount of ampere-hours to use a hexavalent chromium, owners or operators shall still be subject to the emission limits with corresponding ampere-hour thresholds listed in paragraph (h)(2)

22-3 Response: Facilities that are eligible to utilize a certified wetting agent chemical fume suppressant as their only form of control is subject to either a 20,000 annual ampere-hour limit if located less than or equal to 330 feet to a sensitive receptor or a 50,000 annual ampere-hour limit if located more than 330 feet to a sensitive receptor. In the event that wetting agent chemical fume suppressants are not available, the facility would need to install an add-on air pollution control device or use an SCAQMD approved alternative that is equally effective as the emission limit required for a wetting agent chemical fume suppressant.

22-4 Response: PAR 1469 includes provisions for owners and operators of facilities who choose to phase-out the use of hexavalent chromium to have fewer requirements than if they continued with the use of hexavalent chromium. PAR 1469 does not include a requirement for the phase-out of hexavalent chromium use for all facilities. Please see Response to Comment 22-1.

22-5 Response: Please see Response to Comment 22-4.

22-6 Response: Please see Responses to Comments 22-2, 22-3, and 22-4.

From: Universal Metal Plating <universalmetalplating@verizon.net>
Sent: Friday, April 6, 2018 7:30 PM
To: Neil Fujiwara
Subject: RE: Rule 1469

Hello Neil

Just another question about what makes the reverse strip tank a tier 3 chrome tank? 23-1

We strip the chrome in our chrome strip tank which is muriatic acid not an electroplating tank. Then we use the reverse strip tank to remove the nickel and copper of die-cast and brass pieces.

Can you please clear this up for me?

Thank you,

Jose

Jose De Jesus Martinez
Universal Metal Plating
1526 W. First St.
Azusa, CA 91702
(626) 969-7932 / (626) 969-7931
admin@universalmetalplating.com
http://www.universalmetalplating.com

From: Neil Fujiwara [mailto:nfujiwara@aqmd.gov]
Sent: Thursday, April 05, 2018 7:42 AM
To: Universal Metal Plating <universalmetalplating@verizon.net>
Subject: RE: Rule 1469

Hi Jose,

The phase out of hexavalent chromium is an option for facility to avoid installing add-on controls. We have received comments from various stakeholders to prohibit the use of both CFS and hexavalent chromium (if an alternative is available). Rather than outright ban either substance, pilot studies of alternatives of hexavalent chromium and a re-certification process of chemical fume suppressants would take place following the adoption of PAR 1469. Most of your questions seem to be related to the results of both the re-certification of CFS and the pilot studies. If hypothetically CFS are eliminated, under PAR 1469 a facility may continue to use hexavalent chromium if meeting the emission limit.

I hope this at least partially answers some of your questions.

Please contact me if you have additional questions.

Thanks

Neil Fujiwara
Air Quality Specialist

Response to Comment Email from Universal Plating (submitted 4/6/18)

23-1 Response: Stripping tanks may be considered a Tier III Hexavalent Chromium Tank as it has potential to be a source of hexavalent chromium emissions. Stripping or reverse plating tanks use an electrical current to remove a layer of metal. The electrical current can create hydrogen gas, which forms small bubbles that have a high misting potential, similar to electrolytic tanks. This can lead to hexavalent chromium emissions if there is a high enough concentration of hexavalent chromium in the tank. Based on site visits, staff identified stripping tanks (which are electrolytic) at facilities with a hexavalent chromium tank concentration above 1,000 ppm, thus meeting the definition of a Tier III Tank.

From: Pearce (US), William R <william.r.pearce@boeing.com>
Sent: Thursday, April 19, 2018 9:09 PM
To: Neil Fujiwara
Subject: FW: PAR 1469 Comment Letter
Attachments: PAR146903012018.pdf

Sorry, misunderstood your voicemail. The issue with (n) is that we need to take our existing Operation & Maintenance Plan that is in effect currently and completely revise to include all new requirements that are contained in the rule. This will also include the development of new recordkeeping forms and revision of existing recordkeeping forms to match the new
requirements. Also will need to train employees with respect to the new O&M Plan. Not a simple task due to the increased complexity of the proposed rule if the plan and associated documents are to be prepared correctly. Also, this is being completed in conjunction with assuring all other requirements in the proposed rule are being met. Boeing believes the request for 90 days is appropriate under these circumstances. 24-1

Let me know if you need anything and will see you tomorrow.

Response to Comment Email from Boeing (submitted on 4/19/18)

24-1 Response: The due date for a revised operational and maintenance plan has been revised under paragraph (n)(9) as follows: "*No later than [90 Days After Date of Adoption], the facility's operation and maintenance plan shall be revised and made available upon request to the Executive Officer to reflect the incorporation of the inspection and maintenance requirements for a device or monitoring equipment that is identified in Table 4-2 and Table 4-3 of Appendix 4 and shall include the elements required in subparagraphs (n)(5)(A) and (n)(5)(B).*"

From: Roger Sanchez <rsanchez@picoriveraplating.com>
Sent: Wednesday, May 2, 2018 3:07 PM
To: Neil Fujiwara
Cc: Jillian Wong; Susan Nakamura; Eugene Kang; Robert Gottschalk
Subject: RE: PAR 1469 Follow-Up: Stationary Source Committee Meeting 4/20/18

Neil

Regarding rule 1469 my main concerns was to make sure that AQMD'S Staff understands that California is losing business right and left do to the fact of to many rules and regulations that affect not only metal finishing shops but business in general.
We don't plate Chrome or Nickel the only Finish we do is Zinc plating only so 1469 RULE Might not be a big issue for us but is always a concern once again before a final decision is done for rule 1469 I ask all of you to consider every one's comments and work with us. 25-1

At this time I don't consider a need to meet or have a meeting but if you have any other questions please let me know thanks.

Good day to you.

Roger

Response to Comment Email from Pico Rivera Plating (submitted 5/2/2018)

25-1 Response: Thank you for your comment. The SCAQMD staff has worked with stakeholders throughout the rulemaking process to develop a proposal that is health protective and with consideration of cost impacts to facilities.

From: Robina [mailto:robinasuwol@earthlink.net]
Sent: Tuesday, July 17, 2018 11:31 AM
To: Neil Fujiwara <nfujiwara@aqmd.gov<mailto:nfujiwara@aqmd.gov>>; Susan Nakamura <SNakamura@aqmd.gov<mailto:SNakamura@aqmd.gov>>
Subject: Re: Concerns Surrounding NEW School Definition -Page 9

Dear Neil & Susan,

On page #9 I note that the definition of schools has been changed and does not include early education, pre-schools, Early Headstart and Headstart.Perhaps this was an unintentional error. Can you please include them in the definition. Thank you so very much. 26-1

Warm Regards,

Robina

Robina Suwol
Executive Director
California Safe Schools
818.785.5515 office
818.261.7965 cell
www.calisafe.org<http://www.calisafe.org>

Responses to Comment Email from Robina Suwol (submitted 7/17/18)

26-1 Response: The definition of SCHOOL has been revised under paragraph (c)(47) as follows: *"School means any public or private school, including juvenile detention facilities with classrooms, used for the education of more than 12 children at the school in kindergarten through grade 12. School also means an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as pre-schools, Early Head Start, Head Start, First Five, and Child Development Centers. A school does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property."*

From: Pearce (US), William R <william.r.pearce@boeing.com>
Sent: Tuesday, July 17, 2018 7:25 AM
To: Susan Nakamura
Cc: Neil Fujiwara
Subject: PAR 1469 Comments

Just some quick comments (not inclusive) on PAR 1469 that was released on Friday. Formal comments to follow. Please let me know if you have any questions.

- (c)(6) Approved cleaning method is too restrictive. The language in SCAQMD Rule 1420 allows the following: "Clean by wet wash, wet mop, or with a vacuum in a manner that does not generate fugitive lead dust". Proposed language eliminates ability to use walk behind wet sweepers to clean floors without going through a time-consuming and unnecessary process for District approval. Language should be revised to read as follows:

  "Approved cleaning method means cleaning by wet wash, wet mop, damp cloth, low pressure spray nozzle, HEPA vacuum, or other method as approved by the Executive Officer". 27-1

- (c)(29) has been revised to apparently state that fugitive emissions now include stack emissions. The District has always treated these two categories as separate in the way the emissions are treated in rules and how they are reported to the District. Language should be reinstated that excludes particulate matter emitted from an exhaust stack. 27-2

- (e)(2) now includes a requirement that building enclosure openings are not open more than two hours per operating day. Does the District envision that a system will now have to be put into place to track the time that these doors remain open to assure that the two hours per operating day requirement is not exceeded? 27-3

- (f)(6) requires that buffing, grinding, and polishing workstations have the floors cleaned within 20 feet on each day when these types of operations are conducted. Request that the District consider an exemption (as an incentive) for these types of operations when they are vented to a control device. 27-4

- (g)(3) requires that new labeling requirements are effective 30 days after rule adoption. This is a more complex and time consuming process than can be completed in 30 days due to the number of tanks involved and revision of the associated Health & Safety labels currently on the tanks to allow room for the new signage. Request that labeling requirements be effective 60 days after rule adoption. 27-5

- Appendix 9, #3 requires a minimum 12 point matrix for all tanks, regardless of size. Some of the tanks that will now be covered by the rule only have a surface area of 10 square feet, at least at the Boeing facility. Suggest that the District consider a sliding scale for the point matrix for these smaller tanks. 27-6

Bill Pearce
310-200-3155

Responses to Comment Email from Boeing (submitted on 7/7/18)

27-1 Response: The definition for APPROVED CLEANING METHOD has been modified to include the requested methods and reads as follows, "*...means cleaning using a wet mop, damp cloth, wet wash, low pressure spray nozzle, HEPA vacuum, or other method as approved by the Executive Officer."*

27-2 Response: The definition of FUGITIVE EMISSION has been revised to restore the proposed exclusion of "*particulate matter emitted from an exhaust stack."*

27-3 Response: PAR 1469 does not require a system or recordkeeping that would track the duration of when doors are open. The facility can decide what measures to If District staff have evidence that a door is open for more than two hours (e.g., by direct observation), then District staff would note a violation of paragraph (e)(2) and subsequent enforcement actions will occur.

27-4 Response: Staff does not have a specific exemption for operations vented to a control as material may still land on work space that could result in an accumulation of dust.

27-5 Response: Paragraph (g)(3) has been modified as follows: "*Beginning [60 Days After Date of Rule Adoption] ..."*

27-6 Response: This is an existing requirement and not changed as a result of PAR 1469. Staff is not aware of any facilities which have been unable to meet this requirement in the current rule.

From: Brian Ward <brian@aaaplating.com>
Sent: Wednesday, August 8, 2018 2:42 PM
To: Neil Fujiwara
Subject: Re: PAR 1469 Notice of Public Hearing Documents

Neil-

Will companies on a phase out plan be required to complete another source test? 28-1

Thanks.

Brian Ward
AAA Plating and Inspection, Inc.
(310)637-1066

On Wed, 08 Aug 2018 13:53:16 -0700, Neil Fujiwara <nfujiwara@aqmd.gov>
wrote:

> To All Proposed Amended Rule (PAR) 1469 Stakeholders,
>
> As a reminder, the public hearing for PAR 1469 - Hexavalent Chromium
> Emissions from Chromium Electroplating and Chromic Acid Anodizing
> Operations is scheduled for the following time and location:
>
> Friday, September 7, 2018 at 9:00 AM
> SCAQMD Headquarters-Auditorium
> 21865 Copley Drive
> Diamond Bar, CA 91765
>
> Additionally, the following documents are available and can be
> accessed by clicking on the titles below:
>
> PAR 1469 Draft Rule
> Language<http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Ru
> les/1469/draft-par-1469_30-day-final_8-2018.pdf?sfvrsn=8>
> PAR 1469 Draft Staff
> Report<http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rule
> s/1469/draft-par-1469-staff-report_30-day-final_8-2018_complete.pdf?sf
> vrsn=8> Revised PAR 1469 Draft Socioeconomic Impact Assessment
> Report<http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rule
> s/1469/revised-draft-socio-report-par-1469-aug-7.pdf?sfvrsn=8>
>
> If you have any questions, please contact Neil Fujiwara, Air Quality
> Specialist, by phone at 909-396-3512 or e-mail at
> nfujiwara@aqmd.gov<mailto:nfujiwara@aqmd.gov>.

Responses to Comment Email from Brian Ward (submitted on 8/8/2018)

28-1 Response: If the owner or operator of a facility submits a Hexavalent Chromium Phase-Out Plan, the requirements of paragraph (h)(4) to vent a Tier III Hexavalent Chromium Tank to an add-on air pollution control device would no longer apply and no source test is required.

From: Pat V <Patv1.123@outlook.com>
Sent: Thursday, August 9, 2018 1:47 PM
To: Neil Fujiwara; Dr. Joseph K. Lyou; fourthdistrict@bos.lacounty.gov; kaya@ceh.org; geraldcerda@aol.com; Martha Camacho-Rodriguez; Mandi Bane; Public Advisor
Subject: RULE 1469 Stakeholders September 7, 2018 at 9:00am

Hello, As a resident of Paramount & community advocate I have the following concern on the date & time of the proposed public hearing for PAR 1469.
Why does the agency continue to hold these working " public hearings" during the times that our low income communities cannot attend or call in to these hearings? Communities that are afflicted by environmental toxins such as Hexavalent Chromium
are working class communities that do not have the luxury to take a day off to attend , some might not even have means of transportation to get there. I have attended several of these meetings & in contrast have found a lot of participation mostly by the metal industry. This does not fully engage the communities that are suffering from these problems. Your agency is suppose to protect our communities from environmental toxins.
I strongly urge you to reconsider the time & locations of these meetings.

29-1

Regards,
Sara Patricia Huezo
Social Eco Education
SEE

Responses to Comment Email from Sara Patricia Huezo (submitted 8/9/18)

29-1 Response: In an effort to promote community involvement during the rule development process for PAR 1469, staff held two of the 13 working group meetings during the evening at the Dollarhide Community Center in Compton. Working Group meetings held at SCAQMD headquarters also included a conference call option, which allowed members of the public to participate remotely. Also, staff held two informational meetings on August 28th and 29th, 2018 at 5:00 PM, in the Boyle Heights and El Monte communities. Documents related to the development of PAR 1469, such as presentations, are sent to working group members and can be found on the proposed rule page on SCAQMD's website (available on the internet at http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules#1469). Staff have been available and responsive to questions from stakeholders and interested parties throughout the rulemaking process.

The Public Hearing for PAR 1469 is scheduled for 9am on September 7, 2018. The public hearings for adoption of SCAQMD rules occur during the SCAQMD Governing Board meetings, which are held on the first Friday of every month starting at 9am. Members of the public who are unable to attend the public hearing in person and wish to submit written comments for review prior to the hearing must submit such comments to the Clerk of the Board on or before Tuesday, August 28, 2018, as noted in the Notice of Public Hearing. The public hearing is also webcast live on SCAQMD's website at http://www.aqmd.gov/home/news-events/webcast.

From: Wesley Turnbow <wturnbow@emeplating.com>
Sent: Tuesday, August 21, 2018 4:01 PM
To: Susan Nakamura
Cc: Neil Fujiwara
Subject: SCAQMD PAR1469 - More Thoughts About The Remaining MFASC Concerns

Hello Susan,

The MFASC has thought through your helpful responses to our issues and the modified language provided. Yet, we feel concerns still remain. Here they are:

1) Regarding the protection for small shops, Section (l)(7-9) on page 45. It boils down to if wetting agent chemical fume suppressants ultimately are not allowed, then on July 1, 2021 facilities may use an alternative. This as yet undetermined alternative has to meet <0.01 milligrams per ampere hour, be approved by the district (CARB, too?), used with their approval, and permitted. The SCAQMD is to test and approve materials, then provide a list. Facilities could choose from the list and comply.

This now seems to fall on the facilities to prove that an alternative is adequate and then jump through the hoops of approval and re-permitting. Can small facilities afford that and accomplish that in the time allowed? 30-1

2) Regarding the PTE triggers, Section (p)(4)(A) requires reporting of "any failed smoke test, any failed source test, any exceedance of a permitted ampere-hour limit, or any malfunction of a non-resettable ampere-hour meter" within "four hours of the incident or within four hours from the time the owner or operator of a facility knew or reasonably should have known". That's open for interpretation, and ominous. A reasonable scenario is that a shop is late in performing a semi-annual smoke test, they perform one and it fails. The shop immediately shuts down the process. They are now required to call it in. When should they have known about the failure? A day ago when they were supposed to run the test? The shop has probably run the tank after they reasonably should have known... PTE now required. 30-2

I think that tightening and editing a bit of rule language may alleviate these two concerns. What do you think?

-Wesley

-----Original Message-----
Sent on 8/16/2018:

Hi Wesley,

Please find attached a highlighted copy of PAR 1469 Draft Rule Language.

The requirements that were discussed this afternoon are highlighted and can be found on Page 45 and Page 68.

Please let me know if you have any questions.

Thank you

Neil Fujiwara
Air Quality Specialist

Responses to Comment Email from Wesley Turnbow (submitted 8/21/18)

30-1 Response: PAR 1469 allows facilities to utilize an SCAQMD approved alternative air pollution control technique to meet an equivalent emission rate of 0.01 mg/ampere-hour. As described in the staff report, the SCAQMD approved alternative air pollution control technique(s) will undergo an approval process by SCAQMD, in cooperation with CARB, that will include source tests conducted by staff. If smaller facilities utilize the SCAQMD-approved alternative air pollution control technique, the facility will not be required to conduct initial or recurring source tests. Eligible facilities will need to apply for permit modifications to their chromium electroplating or chromic acid anodizing processes. An SCAQMD approved alternative air pollution control technique will streamline the requirements on facilities and provide facilities with a lower cost option within the time allowed.

30-2 Response: In the event that the owner or operator of a facility is "late" conducting a semi-annual smoke test, the owner or operators of the facility would be in violation of subparagraph (m)(1)(E) and be subject to enforcement action. The owner or operator of a facility would be subject to the requirement to shut down all Tier II or Tier III Hexavalent Chromium Tanks that are associated with the failed smoke or slot velocity test after the test is conducted, not on the day when they needed to run the test to be compliant with the smoke test schedule specified in subparagraph (m)(1)(E). The facility would be subject to permanent total enclosure requirements if the tank associated with the failed smoke or slot velocity test is not shut-down following failure of the test.

Comments on the Draft Socioeconomic Impact Assessment for PAR 1469

We are pleased to have the opportunity to provide comments on behalf of the Metal Finishing Association of Southern California (MFASC) on the South Coast Air Quality Management District's (SCAQMD's) draft Socioeconomic Impact Assessment (SIA) for Proposed Amended Rule (PAR) 1469.

While most of our specific comments represent instances where we criticize the draft SIA and suggest improvements to it, this should not detract from our appreciation for the notable effort the District staff have made in estimating the compliance costs and economic impacts of PAR 1469 and summarizing their analysis in the draft SIA. District staff have conducted an open and collaborative process with stakeholders to develop and analyze PAR 1469. The product of this effort – the proposed rule itself and its supporting documentation – have benefited from many discussions and sharing of information and perspectives. We hope these comments will contribute to an improved SIA and to further improvements in the proposed rule.

MFASC's Perspective on Economic Issues Associated with PAR 1469

The draft SIA estimates the costs that affected chromium electroplating and anodizing facilities in the SCAQMD will incur in complying with the requirements of PAR 1469 and then analyzes the economic impacts that will result from these compliance costs. The magnitude of the economic impacts that are projected depends directly on the magnitude of the compliance costs that are estimated.

The draft SIA estimates that affected facilities will incur compliance costs amounting to $2.6 - $4.3 million per year. We estimate costs higher than these. In an analysis in which we estimated compliance costs for a set of nine or ten MFASC member-owned facilities and then scaled up to all facilities in the District, we estimated costs of $6.5 million per year, about 50% more than the higher cost scenario estimate projected in the draft SIA. While SCAQMD staff and we shared data and agreed on many elements of the cost analysis, there remain in the draft SIA a few areas where we believe staff have missed some likely significant costs and have underestimated others.[1] We provide comments in this document on how the District staff can improve the cost estimates in the draft SIA.

31-1

Despite underestimating compliance costs, the draft SIA nevertheless finds that PAR 1469 will have significant and worrisome adverse economic impacts on the electroplating and anodizing industry. The draft SIA estimates that:

[1] Another reason why our cost estimates may be higher than those in the draft SIA is that our sample of nine or ten facilities from which we extrapolate to all 115 affected facilities may be representative of the MFASC membership but perhaps not entirely representative of the full set of affected facilities. In particular, our sample may over-represent anodizers (who the draft SIA estimates will face higher than average compliance costs per facility from PAR 1469) and under-represent decorative and hard chrome platers (who are estimated to face lower than average compliance costs, unless non-PFOS fume suppressants are not recertified).

- The average electroplating/anodizing facility will face PAR 1469 compliance costs amounting to 1.8% to 3.3 % of revenues.

- The smaller facility segments of the industry will face even higher compliance burdens -- 3.4% to 7.4% of revenues on average for the 27 small decorative plating facilities, for example.

A regulatory cost burden of this magnitude will eliminate most or all of the average electroplating or anodizing facility's profit margins. By way of comparison, the job shop electroplating industry's pretax profit margin nationally over the past 27 years has averaged under 4%. (This is a low-margin, highly competitive industry.)

While the SCAQMD has not as a general matter established a level of cost impact relative to revenues that they consider threatening for a regulated industry, other regulatory agencies have. Both the Federal Environmental Protection Agency (EPA) and Occupational and Safety and Health Administration (OSHA) have adopted cost thresholds at 1% or 3% of revenues as levels of concern. EPA has said that 3% or more of revenues represents an "unquestionably significant" impact on small businesses. OSHA traditionally uses 1% of revenues and 5 to 10% of profits as thresholds of economic impact concern for their regulations. We're looking here at PAR 1469 costing 100% of profits for many facilities.

We fear that the compliance costs the draft SIA has projected for the industry in the four South Coast counties would cause a significant share of the industry to go out of business. Hundreds or even thousands of good jobs will be lost in the metal finishing industry and the industry's suppliers and customers.

31-1 Cont

Note that all MFASC members know of competitors nearby -- in Northern California, in San Diego, in Mexico and in other States -- that won't face these regulatory costs and that will take much of the South Coast producers' business if local firms were to try to raise their prices by 3% or 5% or 10% to cover the PAR 1469 costs. The findings in the draft SIA suggest that the local industry faces an unfortunate choice between absorbing the regulatory costs and seeing their already modest profitability vanish, and increasing prices to cover the regulatory costs and losing a significant portion of their business to nearby competitors who don't face the PAR 1469 costs.

Summary of Comments on the Draft SIA

We provide the following specific comments suggesting improvements to the draft SIA. If the draft SIA is improved as we suggest, it will further support the MFASC's concerns about the adverse impacts of PAR 1469.

- Capital costs for add-on APCDs will not show economies of scale to the extent assumed in the draft SIA. Larger systems will have lower unit costs than smaller systems, but not to the degree that District staff have estimated in the draft analysis.

- The O&M costs of an air pollution control system should be estimated in relation to the volume of airflow needing control, not to the capital costs of the system. Making this change to the

manner in which O&M costs are estimated in the SIA will bring the estimates much closer to the available cost information for systems that are now operating.

- Costs to meet the enclosure requirements are underestimated. The enclosure provisions will require facilities to do more than meet the 3.5% limitation on openings in the building envelope. There will be additional costs to meet the cross-draft requirements and to provide supplemental ventilation at some facilities.

- The SIA underestimates costs for restrictions on spray rinsing of parts. The SIA estimates costs for these requirements by assuming that facilities with automated lines will install drip trays between each electroplating or anodizing tank and adjacent tanks. For many facilities with automated lines this won't be feasible, and alternative solutions should be costed out. Compliance costs should be estimated also for the facilities that do not have automated lines.

- Additional costs for source testing and for permitting should be included. The draft SIA estimates some costs, but misses the costs for labor hours that facility personnel will expend in managing these activities. The draft SIA also may underestimate the number of new permits that will need to be acquired and renewed as a result of PAR 1469.

- In view of the many uncertainties in estimating compliance costs, the sensitivity analysis in the draft SIA that aims to provide high and low compliance cost estimates and to bracket the likely true cost is important and should be expanded. The SIA should include more of the variables that lead to large uncertainties in estimating costs as differences that are analyzed in the low cost scenario versus the high cost scenario. A high cost scenario is not less reasonable or less likely to prevail than a low cost scenario, and implications in the draft SIA to the contrary should be deleted.

- The SIA's facility-based impact analysis is key in evaluating whether PAR 1469 will be affordable for the affected electroplating and anodizing facilities and in projecting the number of facilities that are likely to close because they will not be able to afford the PAR 1469 compliance costs. We appreciate the District staff's work to include this analysis in the draft SIA. While this analysis in the draft SIA addresses the average facility in each of the categories into which the industry has been divided, the final SIA should do better in portraying the variability in PAR 1469 compliance cost burden across all affected facilities in each category. We suggest a methodology by which District staff could use available data to estimate the facility-by-facility variation in cost burden (facility-by-facility ratio of compliance costs to revenues) and to project the number of facilities that are likely to find compliance not to be affordable. Such an analysis should be included in the final SIA.

31-1 Cont

Capital Costs for Add-on APCDs Will Not Show Economies of Scale to the Extent Assumed in the SIA

We appreciate the District staff's collaborative work with industry consultants to obtain actual incurred cost figures, vendor quotes, engineering estimates and other data with which to develop a relationship that projects the capital cost/cfm for different sized HEPA APCD systems. The individuals involved in this work ultimately agreed on a representative figure of $23/cfm for the capital cost of a relatively small system of approximately 5,000 cfm. While the seven capital cost estimates collected by the MFASC's consultants suggested a lower average figure of about $19.50/cfm, these individual estimates and this average figure did not include any costs for local approvals, building electrical upgrades (typically a thousand dollars or more for each system) and sales tax (5 - 7 % typically). The group judged $23/cfm to be a representative figure that might include the latter two of these additional items.[2] The figure of $23/cfm also matched the figure obtained by SCAQMD staff from an experienced Southern California

31-2

[2] We believe that the large number of local approvals typically required will likely result in costs exceeding $23/cfm when all costs are included. Unless the building has been built in the last several years – which none of the nine sample facilities in the MFASC's cost analysis have been -- when the company goes to the city to get a permit to install the APCD or upgrade the electrical, this will trigger requirements for a number of upgrades (tenant improvements) that may require the facility owner to bring the entire building up to current code. The upgrades can include:

- Seismic upgrades. Could include bracing of the roof and walls. Possible replacement of the entire roof structure and foundation upgrades.
- Electrical upgrades (do you have enough power to run all your equipment and the new scrubbers?). If not, you need to bring in new service that opens your entire electrical system to upgrades to meet current code.
- If you install anything on the roof, be prepared for equipment line of sight barriers as well as possible structural upgrades.
- Noise compliance studies may have to be conducted.
- Possible sound barriers may have to be installed.
- ADA compliance (Handicapped Parking, compliant paths of travel, ADA compliant bathrooms, etc.)
- The building will probably be reclassified as an H4 occupancy (High Hazard). This brings with it fire sprinkler requirements, fire and hazard alarm and monitoring, and 2- to 4-hour fire barrier walls between H4 and other occupancies. Though a number of cities don't seem to push it this could require the replacement of all ductwork with CPVC or installation of fire heads in all ductwork.
- This can also affect secondary containment. If you have to install fire sprinklers or increase their capacity, the water from the sprinklers (20 minutes) also has to be taken into account for secondary containment calculations.
- Depending upon where your chemical storage area is, fire bunkers may have to be installed or alternate emergency exits and paths of travel will need to be considered.
- Since most older neighborhoods do not have the water pressure at the street to accommodate an H4 occupancy, you may have to install a fire house with a fire pump. Big dollars here.
- Is your lighting Title 22 compliant?
- Water-tolerant landscaping requirements. Yes you may have to tear out the grass.

While we agree with the draft SIA statements to the effect that costs for the upgrades likely to be required by local governments are both uncertain and difficult to predict (see page 17), we believe that the capital cost figures for APCDs used in the draft SIA should be viewed in light of the failure to include any costs reflecting the usually significant required local upgrades.

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installer/vendor and was very close to the figure of $22.62/cfm that is obtained by updating to 2017 dollars CARB's estimate for the 2008 PATCM for a 5,000 cfm system.

The SIA appropriately recognizes that the cost per cfm for a larger APCD system will likely be somewhat lower than the cost per cfm for a smaller system. There will be economies of scale in purchasing and installing a larger system. However, we believe that the step function approach and the specific figures chosen by the District to represent these economies of scale in the SIA cost analysis are too crude. The District's approach for reflecting economies of scale should be improved.

The District's step function approach generates some illogical results. If, as the SIA assumes (page 16), a system of up to 5,000 cfm costs $23/cfm and a system of between 5,000 and 10,000 cfm costs only $17/cfm, then the District would project that a 6,500 cfm system will actually cost less to purchase and install than a smaller 5,000 cfm system. (5,000 cfm x $23/cfm = $115,000 while 6,500 cfm x $17/cfm = only $110,500.) The same sort of illogical result occurs for larger systems also; the District's chosen relationship would project, for example, that a 12,000 cfm system (at $14/cfm) would cost less than a 10,000 cfm system (at $17/cfm).

The District's chosen step function approach also does not reflect what most engineers would expect to be a smooth increase in economies of scale as system size increases.

It would be better, in our view, to represent economies of scale in capital costs for APCDs with a smooth, continuous function. This could be done in either of two ways:

31-2 Cont

- Most simply, the District could assume a typical exponent of 0.7 or 0.8 to represent scale economies in the capital costs of air pollution control. Doubling the size of the system to be purchased is typically assumed in costing references (e.g., EPA's *Air Pollution Control Cost Manual*) to increase the cost of an air pollution control system not by a factor of two but instead by a factor of $2^{0.7}$ (=1.62) or $2^{0.8}$ (=1.74). If a 5,000 cfm system costs $115,000 ($23/cfm), then a 10,000 cfm system would be estimated to cost $187,000 ($18.70/cfm) using the 0.7 exponent or $200,100 ($20.10/cfm) using the 0.8 exponent.

- Alternatively, the District could perform a regression analysis to develop a relationship between system capital cost and system size in cfm, using the five (most appropriate) or seven (total, of which two are less appropriate) HEPA system cost quotes that we obtained and provided to District staff earlier this year.

Either of these approaches to representing economies of scale would provide two significant advantages over the step function approach the District uses in the Draft SIA. Either would: 1) Avoid the illogical results obtained using the District's approach; 2) Provide a smooth, continuous functional relationship that easily allows for estimating the cost of any particular sized system and reflects continually increasing economies of scale as the size of the APCD increases.

The District appears to have drawn the SIA cost estimates for systems larger than 5,000 cfm from the CARB PATCM estimates, but in our view staff have misinterpreted the CARB estimates. CARB estimated

$17/cfm specifically for a 10,000 cfm system, not as staff assumes in the draft SIA for all systems in the range from 5,000 cfm to 10,000 cfm. A system toward the low end of this range, i.e., only slightly larger than 5,000 cfm, would have a cost substantially higher than $17/cfm. Likewise, CARB estimated $14/cfm specifically for a 20,000 cfm system, not for all systems in the range from 10,000 to 20,000 cfm. A system toward the low end of this range would have a cost much closer to $17/cfm (the CARB figure for a 10,000 cfm system) than to $14/cfm as the District has assumed for the SIA.

Finally, note that Ike Molvi, an installer/vendor with whom District staff have been in contact, estimated $23/cfm for a 5,000 cfm system and $18 - $19/cfm for a larger 20,000 cfm system.

In sum, we believe that the SIA estimate of $23/cfm in capital cost for a 5,000 cfm system is reasonable (although it still likely does not reflect the costs of local approvals necessitated by construction of the system), but that the SIA cost estimates for larger size systems are too low, reflecting too large a reduction in costs as system size increases.

Please note also that District staff appear perhaps to have made an error in the logic of their worksheet in which capital costs for APCD systems have been estimated.

SCAQMD staff provided us with a redacted copy of the worksheet used to develop the compliance cost estimates in the SIA. The worksheet is redacted in two respects: 1) Information that could reveal the identity of any particular facility has been removed; and 2) The formulas linking cells in the worksheet have been removed, leaving each cell so that it includes only a number without explanation of how that number might have been derived. The latter alteration to the worksheet makes it somewhat difficult for us to understand and to trace the analysis, but we believe in most instances that we have figured out what the formulas are likely to be in the non-redacted worksheet. We appreciate the opportunity to review this material and appreciate the effort the District staff have made in explaining this material to us.

31-2 Cont

The possible error that we are concerned with occurs in the worksheet titled "Cost Sheet for PAR 1469_StuCopy". In the first tab (High Estimate - Rev) of this worksheet, in Column D, the average tank size is multiplied by the number of tanks at the facility to get the total square footage of tanks at the facility. In column E, this total square footage at the facility is multiplied by 150 cfm/sq ft (plus 30% more for the tanks with hot, saturated air flows assumed to exist at medium anodizers) to obtain the total airflow needing APCD control at the facility. In column J, the total airflow needing APCD control is then multiplied by $23/cfm (up to 5,000 cfm) or by $17/cfm (5,001 to 10,000 cfm) or by $14/cfm (10,001 to 20,000 cfm). This procedure of totaling the cfm for all the tanks at the facility and then multiplying by the cost/cfm step function seems inappropriate. In the high cost scenario, the assumption is supposed to be that there will be one APCD system per tank needing APCD control. If so, it is not appropriate to total the cfm for all the tanks at the facility needing control and then to price a single large APCD that will provide control for that total air flow. Instead, distinct APCDs should be priced individually for the air flows for each tank needing APCD and then costs should be added across the multiple APCDs. The error lies in applying the cost/cfm figure ($23 or $17 or $14 per cfm) to the total air flow at the facility rather than to the air flow for each individual tank.

6

The Estimated O&M Costs of an Air Pollution Control System Should be Related to the Volume of Airflow Needing Control, Not to the Capital Costs of the System

Applying an approach used by CARB for the 2006 chromium electroplating ATCM and relying mostly on data provided by industry, the SIA applies cost figures to the effect that the annual operating and maintenance costs for an APC system will equal 18% of that system's capital costs. We believe that a better interpretation of the available data would suggest instead applying an annual O&M cost of roughly $6 per cfm or, if the District wishes to reflect some economies of scale in the estimates, perhaps $10 per cfm for smaller systems of approximately 5,000 cfm and $4 per cfm for larger systems exceeding 15,000 cfm.[3]

The table shown on the page after next summarizes the information on O&M costs for HEPA filtration APCDs that we provided to District staff earlier. We've added to the table a final column at the right that shows O&M costs as a function of the APCD system size expressed in cfm, which we believe is the best way to estimate O&M costs. This is in contrast to the CARB 2006 approach that has been adopted for the draft SIA, in which annual O&M costs are expressed as a function of APCD system capital costs. In our view, O&M costs are most directly a function of an APCD system's size measured in terms of airflow, and any observed correlation between a system's O&M costs and its capital cost is due in fact to more fundamental relationships between the system's capital cost and its size/airflow and between O&M cost and size/airflow. Why not express the relationship between system size and O&M cost directly rather than indirectly in two steps via the relationship between system size and capital cost? The District staff's approach to estimating APCD O&M costs yields the following cost/cfm estimates when the 18% of capital cost figure is combined with the staff's capital cost estimates (which we discussed earlier and suggested that they represent too much in the way of economies of scale). 31-3

O&M Costs for APCDs as a Function of System Size in cfm
Figures Resulting from SCAQMD Draft SIA Approach

APCD system size (cfm)	Capital cost/cfm	Annual O&M cost relative to capital cost	Resulting estimated O&M cost/cfm
Up to 5,000	$23	18%	$4.14
5,001 to 10,000	$17	18%	$3.06
10,001 to 20,000	$14	18%	$2.52

The estimates the District staff uses in the SIA are too low when expressed on a per cfm basis in this manner. For small APCD systems under 5,000 cfm the staff's approach results in estimated O&M costs of $4.14/cfm, in contrast to the estimate of $13.89/cfm for the only small system in our limited data set. For large systems exceeding 10,000 cfm, the staff's approach results in estimated O&M costs of $2.52/cfm in contrast to the three estimates for actual large systems that range from $3.18 - $4.10/cfm.

[3] We have no data for systems in the vicinity of 10,000 cfm and thus no recommendation specifically for them, although somewhere between the $4 and $10 per cfm figures for smaller and larger systems might seem reasonable.

7

Annual Operating and Maintenance Costs for APCDs for Hex Chrome Plating/Anodizing/Finishing Tanks

Unit Cost Assumptions:

Annual permit renewal (SCAQMD estimate):	$1,409	per APCD	
Initial permit application (SCAQMD estimate):	$4,354	per APCD (assume average of 7 yrs after initial permit before significant changes and new permit application needed. Yrly cost thus = (initial application cost + 6*annual application cost)/7	
Supervising, inspecting APCD operation:	3	hours/month/APCD (Workload estimate by one facility engineer after compliance w/PAR 1469)	
Reading APCD gauges, testing, data logging:	6	hours/month/APCD (Estimate by one facility engineer for lab personnel workload after compliance w/PAR 1469)	
Cost for ULPA filter:	$700		
Cost for HEPA filter:	$300		
	50	weeks/yr	
Capital cost for HEPA + scrubbers/mesh pad APCD:	$23	per cfm	
Avg engineer/supervisor/lab technician cost:	$44.84	per hr	
Avg labor cost:	$22.42	per hr	
Electricity Cost:	$0.18	per kW-hr (Note: seasonal and time-of-day industrial rates will end up higher than this figure. E.g., one facility pays avg of $0.17/kW-hr winter and $0.35/kW-hr in summer. This is one impt reason why these O&M costs are likely underestimated)	

Facility Number	Number of APCD Systems	APCD System	Capital Cost	Airflow (cfm)	Annual Energy Cost Reported or Estimated by Facility	Filters	Replacement Schedule	Cost per yr to purchase replacement filters	Estimated Crew Hours per Changeout	Crew Cost per yr for filter replacements	Hazwaste Disposal Cost	Total Filter Cost/yr	Oversight, Testing, Data Logging, etc. Hours/yr	Oversight etc. Cost/yr	Permit cost/yr	4% of Capital Cost/yr for Property Tax, Insurance, Overhead (Source: EPA)	Total Annual O&M Cost for APCD	Annual Cost as % of Capital Cost	Annual Cost per cfm of Airflow
1	1	7 plating tanks/baths vented to scrubber, mesh pad, prefilters, HEPA + some bldg ventilation	$690,000	30,000	$48,000	30	2x/yr, 30 per changeout	$18,000	36	$3,228	$5,600	$26,828	420	$18,833	$1,830	$27,600	$123,091	18%	$4.10
2	2	2 systems serving 7 hard chrome plating tanks	$250,000	4,500	$5,371	9 prefilters 9 intermediate 9 HEPA	Prefilters quarterly Others 2x/yr Thus avg 18 per quarterly changeout	$21,600	21.6	$3,874	$8,320	$33,794	216	$9,685	$3,659	$10,000	$62,510	25%	$13.89
3	1	1 system serving 6 hard chrome plating tanks: mesh pads, prefilters, HEPA	$403,650	17,550	$12,000	9 prefilters 9 HEPA	2x/yr, 30 per changeout	$10,000	21.6	$1,937	$5,600	$17,537	7	$8,333	$1,830	$16,146	$55,846	14%	$3.18
4	1	Vent and control dichromate seal tank + building	$370,000	17,000	$5,000	28 HEPAs 10 ULPAs	HEPAs 2x/yr, ULPAs 1x/yr Thus 38 filters once, 28 next time, avg 33 at 2x/yr	$23,800	39.6	$3,551	$6,000	$33,351	108	$4,843	$1,830	$14,800	$59,824	16%	$3.52
																	Average:		$6.17
																	Weighted average:		$4.36

Costs to Meet the Enclosure Requirements are Underestimated

For our sample of facilities, we estimate higher costs to meet the enclosure requirements than the costs estimated in the SIA. We expect six sorts of costs that should be estimated in the SIA:

1. Costs to close roof vents that are within 15 feet of Tier II or III tanks. Roof vents this close to a tank must be closed. The area of any such roof vents counts toward the total square footage of building openings, and thus the closure of any such roof vents helps toward meeting the 3.5% allowance. Among the sample of 9 facilities in our cost analysis, we believe there are zero such openings within 15 feet of what will be Tier II or III tanks. (There were many within 30 feet, however.) The ceiling height of the great majority of electroplating/anodizing buildings is 20 feet or more, meaning that a vent even directly above a tank with 3-foot walls on a 2-foot platform will not be within 15 feet of the tank. We suggest that the District's cost analysis should not include roof vents in the scenario that is costed out for closing openings.

2. Costs to close additional openings as necessary to meet the 3.5% allowance. The draft SIA suggests that most facilities are already below 3.5% openings, and we agree. Among our 9 sample facilities, only two appeared currently to exceed 3.5 %. One facility would need to reduce its openings by about 140 ft^2 and the other by about 100 ft^2 in order to achieve 3.5%. One of these facilities would likely choose to install an automated 14' x 12' roll-up door to close a large bay opening at a cost of about $10,000. The other would likely cover over a window, close a large wall vent, and replace an open doorway with plastic strip curtains, at a total cost of perhaps $2,000. 31-4

3. Costs to ensure that openings on opposite sides of the building are not open simultaneously, except for a maximum of 2 hours per opening per day to allow ingress/egress of personnel and equipment. This requirement applies additionally, beyond the requirement to limit total openings to 3.5%. In our view, this means in practical terms that in any situations where there are openings of any sort on both sides of a building and/or in both the front and back walls of the building then all the openings on one of the two opposing walls must be fitted in some manner that keeps them generally closed, with the exception of a maximum of 2 hours/day for ingress/egress. Thus, for example, even for a building that already easily meets the 3.5% requirement, if on one side there are several open windows, a wall vent and a swamp cooler vent and on the other side there are several open doorways, then all of these items on one or the other of the two sides must be fitted in a way so that they remain generally closed, except when specifically opened for ingress/egress. Perhaps all of the open doorways on one side would be fitted with plastic strip curtains or doors that close automatically and remain closed except when being used, or perhaps the windows, wall vent and opening for the swamp cooler on the other side (none of which are used for ingress/egress of people or equipment) would be permanently closed, but one or the other of these two options would need to occur. Among our nine sample facilities, most had openings on two opposing sides of their building that are typically kept open, and some facilities had openings on all four of the opposing sides of the building. The District should estimate the costs to close a typical assortment of such openings in addition to the costs to reduce the total area of openings to meet the 3.5% requirement. A reasonable collection of such openings to assume perhaps as typical for a higher cost scenario might include two walls needing closures (one side wall, and either the front or back wall);

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one wall with a small bay opening for entry and exit of equipment, an open doorway for personnel, a large window and a large wall vent, and another wall with only an open doorway and a large window or wall vent. As a representative lower cost scenario, one might assume only a single wall needing closures for an open doorway and a large window or wall vent. The costs to close these openings at typical facilities in a manner such that they could be opened when necessary would likely substantially exceed the costs the District has estimated on page 12 of the draft SIA (4 openings per facility at a cost of $200 each). While the assumption of 4 openings per facility seems perhaps reasonable as a middle cost scenario, the assumption of $200 per opening is much too low to represent the installed cost of automated roll-up doors or closing large vents and disposing of fans, housings and swamp coolers or fitting a door with an automatic closer or installing a good strip curtain arrangement in an open doorway.

4. Costs to close any openings that directly face toward and are within specified distances of sensitive receptors or schools. We did not inquire about such openings with our nine sample facilities, and thus did not estimate the costs to close them. The draft SIA also does not appear to have investigated how many openings of this sort exist and how much it might cost to close them. We understand that the District has GIS capabilities to determine how close each facility is to sensitive receptors and schools, and this would provide a start toward estimating the costs to meet this requirement.

5. Costs to address special or unusual closure situations that require structural changes in facilities. We appreciate the effort made in the SIA to recognize and account for such situations (see the two situations described at the bottom of page 12). In the first of these referenced situations, the large gaps between the wall and the roof do not necessarily have to be closed to meet the 3.5% requirement, but without closing them there will inevitably be substantial cross-drafts in the building. It would perhaps be more accurate to attribute the costs of closing these gaps to the cross-draft requirement than to the 3.5% requirement. An engineer for the facility has estimated the cost to extend the wall and join it to the roof would be about $50,000. In the other situation, as described in the SIA, the facility's managers have what they view as compelling reasons for keeping large openings at both ends of their large building open -- worker health, safety and comfort; and the logistics of moving equipment and very large parts in and out. They would prefer to meet the cross-draft requirements of PAR 1469 by extending some existing interior walls within the building to make the plating area inside the building into an enclosure rather than by closing the openings at one or the other end of the building. It may be true, as the SIA indicates, that this represents a business choice and may not be the least-cost way to meet the PAR 1469 enclosure requirements. However, if one takes a broad view on what constitutes "costs", including worker discomfort and logistical difficulties as costs in addition to construction activities, then this facility's preferred strategy to develop an enclosure within the building may well be the least-cost solution for them.

31-4 Cont

6. Costs for additional ventilation to provide acceptable conditions for workers after the facility is closed up. Among our nine sample facilities, the managers of five of them believed that the combined impact of the closures due to the five requirements cited above would leave the building as needing more ventilation after it is closed up than would be provided assuming: 1) current levels of ventilation plus 2) the additional airflow that will be provided by the projected new APCDs for Tier III tanks. In our cost

analysis, we attempted to quantify how much additional ventilation would be needed to meet a target of 6 air exchanges per hour within the building enclosure, and then split this additional ventilation needed into a share attributable to insufficient ventilation now and a share attributable to the additional closures due to PAR 1469. We admit that neither four of the five facility managers who thought they would need additional ventilation nor our calculations had the benefit of input or review by ventilation engineers. One of the five facilities did have a knowledgeable consulting engineer review the current facility ventilation situation relative to the PAR 1469 requirements and estimate needs and costs. In our cost analysis, we estimated that the total annualized cost for additional ventilation needed by the five facilities upon compliance with PAR 1469 would be about $14,000/year/facility.

One additional point to make about estimating the costs to meet the enclosure requirements of PAR 1469 is that these requirements apply to each enclosure within which Tier II and III hexavalent chromium tanks are located. The draft SIA equates enclosures with facilities, assuming in effect one enclosure per electroplating/anodizing facility, and scaling up the estimated unit compliance costs for a typical enclosure by multiplying by the 111 facilities affected by the enclosure requirements. Some electroplating/anodizing facilities, however, have multiple buildings or multiple enclosures within which Tier II and III tanks are located. Among our nine facilities that serve as case studies for our cost analysis for the enclosure provisions, there are 11 or perhaps 12 buildings within which Tier II and III hexavalent chromium tanks are located and there will be 12 enclosures within the meaning of PAR 1469. The SIA cost analysis for the enclosure requirements should scale up appropriately to the number of enclosures within the SCAQMD, not simply to the number of affected facilities. 31-4 Cont

The SIA Underestimates Costs for the Restrictions on Spray Rinsing of Parts

PAR 1469 would require operators when spray rinsing parts or equipment that were previously in a Tier II or Tier III hexavalent chromium tank to:

- Do so with parts fully lowered inside a tank where the overspray and all of the liquid is captured inside the tank; or
- Alternatively the operator may rinse above a tank if the tank is equipped with splash guards in good condition and the splash guards are cleaned weekly with water.
    - For a tank where installation of splash guards would restrict an overhead crane system, the operator may rinse above the tank if s/he uses a low pressure spray nozzle and the water flows off of the part or equipment and into the tank.

31-5

The SIA states that costs are estimated for these provisions by assuming that operators will comply by installing a drip tray between each electroplating or anodizing tank and adjacent tanks for facilities with automated lines. The capital cost of an installed drip tray is estimated at $310 including installation labor, and no cost is estimated for maintenance, cleaning or replacement. Several aspects of this cost estimate raise questions:

- Despite the statement to the effect that costs are estimated only for drip trays at facilities with automated lines, the cost estimate appears to reflect one drip tray for each electrolytic tank and for each Tier III tank (305 total tanks) without regard to whether the facility has an automated line or not. The estimate thus reflecting one drip tray per electrolytic or Tier III tank appears to presume that a drip tray needs to be installed between the electrolytic/Tier III tank and an adjoining tank on only one side of these tanks, as if parts are always moved out of one of these tanks in only one direction. Movement of parts in either direction from one of these tanks would imply in most instances drip trays on both sides of the tank, not only on one side.

- The cost estimate presumes that it is feasible in all instances where there are electrolytic or Tier III tanks to install and maintain and clean drip trays, and that drip trays represent the only method that operators will elect to meet the spray rinsing requirements. The SIA does not offer any suggestions about the circumstances under which other options available under PAR 1469 such as rinsing with parts fully lowered into a tank would be chosen. When might rinsing with parts fully lowered into a tank be feasible and cost-effective? Nor does the SIA offer any suggestion about the circumstances under which it may be feasible or not feasible or cost-effective or not cost-effective to rinse above a tank with a low pressure spray nozzle with the water flowing off the parts and into the tank.

We suggest a different approach to estimating the costs to comply with the PAR 1469 spray rinsing requirements.

31-5 Cont

In April of 2018 we conducted a quick survey (supplemental to our original cost survey) of nine MFASC member-owned facilities to acquire information needed to estimate their costs to comply with these and two other specific PAR 1469 housekeeping provisions. Six of the nine facilities participating in this project at that time responded. Respondents cited several reasons why they would incur additional costs if they were to perform their spray rinsing in the manner prescribed by PAR 1469:

- At most facilities, there are few or no tanks that are empty or almost empty and into which parts can be fully lowered for rinsing that are in the same process lines and near the plating or anodizing tanks. In general, fully in-tank rinsing is not an available option for most automated lines. For hand lines, empty tanks could be found within which spray rinsing could occur, but available empty tanks are often some distance away and carrying parts to distant tanks for rinsing would substantially increase the time required for rinsing and make it difficult to return the collected plating chemicals.

- Installation of spray bars that spray rinse slightly downward while parts are raised by a hoist out of the liquid in a tank would maximize the fraction of overspray that is collected in the tank and would meet the PAR 1469 requirements. Although one of the survey facilities has such a system and finds that this system has reduced operating costs, it would be quite costly to install a spray bar system on a retrofit basis for an existing line of tanks served by an overhead crane. An

ascending rinse spray bar system could be installed cost-effectively only when a tank line is being newly constructed or significantly modified.

- Most facilities thus indicated that most of their spray rinsing is done above tanks, while making an effort to ensure that overspray and drips are collected in the tanks below. The tanks above which spraying occurs have secondary containment around the base of the tanks, typically a sump below a metal grating. The sump collects any overspray or drips that aren't collected in the tanks. The material collected in the sump is usually routed to the facility's wastewater treatment system and the sump is cleaned out periodically. This approach limits the degree to which overspray or drips can result in fugitive emissions, and it is not clear that the PAR 1469 spray rinse requirements would reduce emissions to any significant degree relative to current practice.

- Several operators cited difficulties their employees face in spray rinsing above tanks in a manner that maximizes the collection of spray and drips in the tank below as PAR 1469 would appear to require. It's often not possible to access the full perimeter of a tank and spraying is thus sometimes conducted from a non-optimal location: from farther away using a higher pressure spray that carries further and provides a concentrated, well-directed spray but splashes off more; or in a direction more horizontally rather than downward; or across the short side of a rectangular tank rather than lengthwise along the tank. These time-saving practices may result in an increased portion of the overspray or drips missing the tank below and instead getting collected in the secondary containment. More material could be collected in the tank if employees spent more time and were extra-careful in their spraying. Estimates ranged from 30 – 60 minutes more per shift per employee for the workers conducting spray rinsing to do it more carefully.

31-5 Cont

- One operator objected specifically to being required to use low pressure nozzles when spray rinsing above a tank. Many of his parts have complex geometry with crevices, hollow areas and indentations and he needs to use a high pressure spray to be sure of efficiently removing all traces of unwanted chemicals adhering to parts' surfaces. He is uncertain whether he can meet product quality specifications using only low-pressure spray rinsing. He nevertheless estimated about a half hour additional per employee involved in spray rinsing per shift if he were to spend more time and rinse more carefully using low pressure nozzles.

- Most operators felt that installation of more splash guards was not feasible for their tanks, and that spray rinsing above a tank would be by far the most frequent approach to meet the PAR requirements. Reasons given for the inability to install more splash guards included: insufficient clearance for an overhead crane/conveyor to lift racks and parts out of tanks and carry them elsewhere, and insufficient space between tanks to install splash guards. A couple of operators commented that it is difficult to access all existing splash guards in order to clean them weekly;

another reason why rinsing above tanks is the preferred approach for trying to comply with the proposed requirements rather than installing, cleaning and maintaining splash guards.

The following table summarizes the costs that we estimate the six facilities that responded to our survey will incur to meet the proposed spray rinsing requirements.

The several unit cost figures that we use in developing these cost estimates are:

- Low pressure spray nozzle and hose assembly (includes any necessary plumbing): $200
- Splash guards fully around the perimeter of a tank: $1,000
- Additional labor hours to conduct spray rinsing more carefully and as required are priced at the average hourly production worker wage rate for each facility as reported in our survey, loaded with 41% additional benefits (average for Los Angeles area). The range for the six facilities responding to this survey is from $21.19/hour to $31.49/hour. The average loaded hourly wage rate for the eleven facilities that participated in an earlier survey was $22.42/hour.

31-5 Cont

Estimated Costs to Meet PAR 1469 Spray Rinsing Requirements

Facility	# Low Pressure Sprays Needed	# Tanks Needing Splash Guards	# Workers w/Added Workload	Add'l Time per Worker per Shift (hrs)	Capital Cost	Annual O&M Cost	Total Annualized Cost	Comments
C	3	0	5	0.5	$600	$28,072	$28,390	Now spray above/in a few empty tanks, but most is above process or rinse tanks. Most tanks are 5' deep; with parts fully out of the tanks employees must spray up to rinse top of parts -- overspray. Prohibitively costly to rinse on the rise (would require 2 employees simultaneously, 1 for crane and 1 to rinse) or to install spray bars on all necessary tanks. Have secondary containment. PAR 1469 would require: more lowering of parts into tanks for spraying, more low pressure nozzles, and painstaking care when spraying above tanks.
E	0	0	0	0	$0	$0	$0	Meets these requirements already with ascending spray rinse as racks with parts are pulled up and out of most tanks. Requires coordination between crane operator and tank personnel. Was costly to set up.
F	0	4	3	0.25	$4,000	$10,169	$11,068	Have secondary containment. Typically rinse above the tank. Sometimes rinse while rack is being moved on crane, with drip pan carried below. Assume this will be OK. A couple of tanks could use splash guards also to reduce uncaptured overspray.
G	6	0	3	1	$1,200	$16,949	$17,585	Would need to switch to low pressure nozzles and take much greater care in spraying above tanks. Have secondary containment. "Why is this necessary?"
H	10	0	10	0.5	$2,000	$26,483	$27,543	Concerned about product quality impact w/low pressure spray. Will be major problem for parts with complex geometries. Could perhaps spend much extra time w/low pressure rinse to get it close to right. Note secondary containment. Can't do splash guards because of tank/crane configurations. Don't in most cases have empty tanks in which to do spraying
I	1	0	0	0	$200	$0	$106	Use low pressure spray above tanks in most cases now already. Would be feasible in most instances (but more costly) to rinse in empty tanks or to install splash guards and clean them
Average per facility:					$1,333	$13,612	$14,116	
Avg for small facility:							$8,846	
Avg for large facility:							$16,750	

Additional Costs for Source Testing and for Permitting Should be Included

Costs are estimated in the draft SIA for source testing and emissions screening only for the payments that facility owners will make to consultants and source testing contractors for performing the tests. Costs have been omitted but should be included also for the labor hours that facility personnel will expend in contracting for, arranging and supervising the tests and in recording the results and keeping records. There are often also significant costs involved in shutting down production on a line while source testing proceeds on that line, but it would be quite difficult to estimate these costs. We suggest that the SIA should assume an average of 24 hours of facility personnel labor per source test or emissions screening, with these hours priced at double the average hourly loaded rate for shop personnel of $24.42/hour to reflect the managerial and technical nature of the labor hours required for these activities.

The draft SIA is likewise incomplete in estimating the costs of the additional new and renewal permits that will be prompted by PAR 1469. The draft SIA includes the costs to be paid to the District by facility owners and operators for these permits, but fails to include an estimate of the costs of the labor hours that facility personnel will expend in seeking these permits and the costs incurred for consultants to assist in permit acquisition. These costs also should be estimated and included in the SIA. 31-6

The draft SIA assumes that one permit will be issued and renewed per each new add-on APCD system that will be installed to meet PAR 1469 requirements. We have found, however, that many facilities have had to obtain and have been issued a permit for both the APCD and for a tank or the tank line that the APCD serves. We do not understand the typical procedures applicable in these situations. We suggest that the high cost scenario in the final SIA should reflect a reasonable assumption regarding the additional numbers of tanks or tank lines that will require permits beyond the numbers of APCDs that will require permits.

Uncertainties in the Estimated Number of Tier III Tanks and Estimated Number of APCDs Needed

Costs for purchasing, installing, operating and maintaining APCDs are the largest of the several varieties of compliance costs estimated in the draft SIA. The manner in which the District estimates the number of these controls that will need to be implemented is thus key in the analysis.

As we understand it, the District does not have a census of the tanks existing at the 111 Cr(VI) electroplating/anodizing facilities and the characteristics of these tanks (e.g., Cr(VI) concentrations, operating temperatures, electrolytic and/or air sparged) as would be needed to estimate with confidence the number of tanks that will need control with add-on APCDs. Nor does the District have sufficient information about the purposes and co-location of these tanks needing new controls with each other and with existing APCD-controlled tanks as would be necessary to project confidently whether each of these newly-to-be-controlled tanks will require its own dedicated APCD or whether many of these newly-to-be-controlled tanks could be grouped together in new APCDs serving multiple tanks, or could be vented into existing APCDs. Absent this information, the District makes a several assumptions or estimates. We offer a few comments: 31-7

- The District projects in the draft SIA that the 111 affected Cr(VI) electroplating and anodizing facilities will need to construct somewhere between 64 (low cost estimate) and 103 (high cost estimate) APCD systems to control existing tanks that will become Tier III. This ratio of new APCD systems to facilities is quite similar to what we projected – eight new APCD systems -- for our much smaller (but more thoroughly researched) sample of 10 MFASC member facilities. The District projects 0.58 – 0.93 new APCDs per facility, while we project 0.8, well within the District's range.[4] The District's overall high and low projections bracket ours; these projections appear reasonable in the aggregate.

- The draft SIA appears to suggest (page 14) that 25 of the 62 responses (among 111 facilities, assuming that none of the survey respondents are trivalent chromium only) to the District's survey provide sufficient information to judge how many Tier III tanks there will be at particular facilities and what the characteristics of these tanks are. If these 25 survey respondents are spread across all 12 of the non-trivalent facility categories that the District sets up for the draft SIA, then there are an average of only two survey respondents in each category. This rather limited coverage suggests that there is substantial uncertainty in the details of the District's characterization of the typical facility in each category as drawn from the survey responses, including: how many Tier III tanks, their average size, the number that use CFS, the number that are air sparged and could be switched to eductors, the number of stripping tanks, etc..

31-7 Cont

We question several of the District's specific estimates that staff have derived from this limited number of survey responses:

- The District notes that there are 27 affected facilities that are controlled only by certified fume suppressants, and assumes if chemical fume suppressants are not recertified prior to 2021 that each of these facilities will need only one APCD system. We doubt that this is a good assumption. Among the set of 10 sample MFASC member-owned facilities that we studied for our cost analysis is a hard chrome facility that has two electroplating tanks that are controlled now with fume suppressants and polyballs and no APCDs. This facility would have two additional Tier III tanks (reclaim rinse) if PAR 1469 were adopted. These four tanks are in two different process lines (an automated line and a hand line) and will clearly require two APCDs if fume suppressants are not recertified. Two distinct APCDs will be required partly because these two lines are some distance apart, but more importantly because the two process lines are often run at differing times. It would be quite inefficient to connect all four of these tanks to a single APCD and to run that APCD at all times when any one of the tanks is being operated. We expect that there are additional facilities among the 27 currently controlled only by certified fume suppressants that would need more than one APCD if fume suppressants were not

[4] We did not consider in our analysis the possibility that chemical fume suppressants will not be recertified. If chemical fume suppressants were in fact not recertified by 2021, the number of new APCD systems constructed across our ten case example facilities would increase from eight to ten; giving a higher ratio of new systems to facilities than the District projects even for their high cost scenario.

recertified. The District staff should be able to determine from permit records the number and nature of Cr(VI) electroplating and anodizing tanks at most or perhaps all of these 27 facilities and may be able to obtain information on the additional tanks that will become Tier III at some or all of these facilities. We expect that a significant number of these facilities, perhaps as many as half, will be found to have more than one tank that will need APCD control if fume suppressants are not recertified. For the cost analysis in the final SIA, the District should then apply their high cost scenario (one APCD system per tank needing APCD control) to this larger number of estimated tanks that will need APCD control if fume suppressants are not recertified. (In the low cost scenario the District assumes that fume suppressants will be recertified and that the facilities that control Cr(VI) electroplating/anodizing tanks now using fume suppressants only will use fume suppressants also to control any Tier III tanks.)

- The discussions provided in the draft SIA should be clarified as to why some tanks that might appear perhaps be Tier III have not been counted as Tier III in the analysis (e.g., "adjusted" Tier III tank count). In particular, we are interested in how many chem film, passivation and other tanks that are now air sparged have been assumed as converting to eductors and avoiding Tier III status. Among our sample of facilities, facility operators judged that only about half of these tanks could be switched to eductors without raising concerns about product quality. We are also interested in the SIA providing further details on how a determination was made regarding the fraction of stripping tanks that have Cr(VI) concentrations exceeding 1,000 ppm (thus Tier III) and the fraction that do not. If there are substantial uncertainties on these issues, perhaps they should be included among the variables for which sensitivity analysis is conducted between the low and high cost scenarios.

31-7 Cont

- More generally, the discussion in the draft SIA about why facilities can realize savings by controlling multiple tanks with a single APCD is misleading insofar as it presents a positive case for consolidating control of multiple tanks into a single APCD (see the three points cited on page 17) without presenting also the reasons why consolidation may not be cost-effective. The potential savings from connecting multiple tanks to a single APCD can be outweighed by the costs of doing so when the tanks to be controlled:
    - Are not close to each other and connecting them would require longer duct runs; or
    - Are in different process lines which are operated on differing schedules; or
    - Generate emissions air flows that differ qualitatively (hot, saturated air flows vs. cooler, drier and less concentrated flows) and pose differing control needs that are best served by differing control technologies; or
    - Could be connected but doing so would require significant retrofit costs to integrate the new tanks to be controlled into an existing APCD system. (Note, for example, that EPA made a general assumption in costing retrofit APCD applications for the electroplating

NESHAP regulation that retrofits cost 50% more for the same airflow controlled than entirely new, purpose-built applications.)

Also, tanks not in proximity to each other can rarely be moved closer together as the draft SIA suggests in order to vent them to a common APCD. Most tanks are located as they are because they represent components in process lines. Moving an individual tank out of its process line in order to realize a potential savings in control costs is likely not possible without upsetting various important logistical relationships particular to the process line (e.g., hoists to move parts from tank to tank along the process line, locations of drying stations).

The Sensitivity Analysis that Aims to Provide High and Low Compliance Cost Estimates is Important and Should be Expanded

The District should include more elements in differentiating a low cost scenario from a high cost scenario. The high cost scenario is not less reasonable or less likely to prevail than the low cost scenario.

We support the approach adopted in the draft SIA of estimating costs for both a lower cost scenario and a higher cost scenario, with the aim of bracketing what the PAR 1469 compliance costs are likely to be. But we suggest adding to the list of elements that have been chosen to differentiate the high cost scenario from the low cost scenario. And we disagree with the manner in which both scenarios have been characterized in the SIA:

31-7 Cont

- In our view, the high cost scenario does not represent "the highest expected cost of compliance with the requirements of PAR 1469." There are many respects in which compliance costs could prove in practice to be higher than what is estimated in the draft SIA's high cost scenario. We will list some below.

- The low cost scenario also does not represent "the costs associated with a more reasonable scenario". We view the two scenarios as approximately equally likely and reasonable – the low cost scenario is neither more likely nor more reasonable than the high cost scenario. We will list below some respects in which we believe this also to be true.

In sum, we would suggest that the District should refer neutrally and in a balanced manner to the two cost scenarios, not posing one as more reasonable or likely than the other. We would suggest that they be termed as a "higher cost scenario" and as a "lower cost scenario". The two scenarios should be viewed as representing an effort to bracket the compliance costs that will ensue from PAR 1469, with the costs actually incurred by the affected sources likely, though not necessarily, to be between the lower cost estimate and the higher cost estimate.

Some reasons why the costs that District staff estimate for the high cost scenario might be lower than the costs that ultimately prevail would include:

- Omitted categories of costs. The District has not estimated costs for facility personnel to arrange for and supervise the additional source tests and emissions screening required by PAR 1469, nor the costs for facility personnel and consultants to pursue the additional permits that will be needed. The District has not estimated the additional operating costs that some facility owners will incur to spray rinse parts more carefully so as to capture all overspray in tanks.

- Generally underestimating some categories of costs. We believe that costs are likely to be higher than the District estimates for enclosures and for capital and O&M costs for APCDs (our particular concerns regarding APCD costs involve accounting for economies of scale and the costs for local approvals that have not been included).

- Underestimating the count of items that will need to be controlled or managed or accomplished. There will be more enclosures that will need to be created and meet the PAR 1469 requirements than there are facilities. At least some facilities that are now controlled only with fume suppressants will have more than one tank that will need APCD control if fume suppressants are not recertified. For some APCD systems, both the system and one or more of the tanks may need permits.

- The discount rate used in the analysis. There are several arguments for applying a discount rate higher than the 4% figure the District uses for the high cost scenario. Federal economic analyses, pursuant to guidance from the U.S. Office of Management and Budget, usually apply a real discount rate of 7%/yr. Many analysts believe that a hurdle rate of return approach that gives even higher figures is appropriate for establishing the discount rate to apply when compliance spending displaces productive private capital investments.

31-7 Cont

Some reasons why we don't consider the low cost scenario to be "more reasonable" or more likely to prevail than the high cost scenario include:

- No one knows whether fume suppressants actually will or will not be recertified.

- Discount rates. Choice of a discount rate as low as 1% (low cost scenario) is very rare in regulatory impact analyses, while the choice of a discount rate higher than the 4% assumed for the high cost scenario is common.

We also suggest that several additional quantities that are both important and uncertain should be added to the list of those that are varied between the lower and the higher cost scenarios. These include:

- The number of Tier III tanks needing control. The number of Tier III tanks has been estimated based on a limited number of site visits and survey responses that together cover only a small fraction of the 115 affected facilities. There is very large uncertainty in then projecting the number of facilities in each category with Tier III tanks and the average number of tanks per facility that has them. The several adjustments that are then applied to the number of Tier III

tanks are further uncertain and should be subject to sensitivity analysis -- the fraction of chem film, passivation and other tanks that can (despite product quality concerns) be switched from air sparging to eductors to reduce control costs; the fraction of stripping tanks that have Cr(VI) concentrations below 1,000 ppm; whether rinse tanks can be managed to hold concentrations below 1,000 ppm, etc. Given the importance of the number of Tier III tanks in estimating compliance costs and the substantial uncertainty in estimating this number based on incomplete available data, this is perhaps the first and most important variable that should be included in a high/low sensitivity analysis. It might be appropriate also to develop also a smaller and a larger estimate of average Tier III tank size for each category. We agree that the sensitivity analysis included in the SIA currently that involves the question of how many APCDs per Tier III tank is reasonable, with high estimate of one APCD per tank and low estimate of one APCD per 2 tanks.

31-7 Cont

- In view of the seemingly substantial difference of opinion between facility operators and the SCAQMD staff about the frequency with which the enclosure requirements in total (not the 3.5% requirement alone) will prompt operators to make structural changes and ventilation improvements, this quantity also should be subject to sensitivity analysis.

The SIA's Facility-Based Impact Analysis is Key in Evaluating Whether PAR 1469 Will Be Affordable for the Affected Electroplating and Anodizing Facilities

We appreciate the District's efforts in the draft SIA to evaluate the impacts of PAR 1469 compliance costs on individual affected electroplating and anodizing facilities. In our view, particularly for small businesses (as nearly all of the entities affected by PAR 1469 are), a comparison of the annualized compliance costs a facility will face against the facility's typical annual revenues and/or profits provides a quick and rough, but very useful, indication of whether the facility can likely afford to pay the costs to comply with the proposed rule and continue in business or cannot afford to pay these costs and will likely close.

31-8

Although additional issues are also important in judging the affordability of a regulation for small businesses (e.g., whether conditions in the markets into which the affected businesses sell are such that regulatory cost increases tend to be passed through to customers), regulatory agencies often apply simple benchmarks in judging when a regulatory cost burden is likely to be problematic:

- The U.S. Occupational Safety and Health Administration (OSHA) typically views a regulatory cost exceeding 1% of revenues or 10% of profits (5% of profits for very small businesses) for the average business in an industry as a potentially significant economic impact. If projected annualized compliance costs exceed one of these levels, substantial further analysis must be conducted if a proposed regulation is to be shown to be "economically feasible" as required for regulations pursuant to the Occupational Safety and Health Act.[5]

[5] See, for example, the discussion in Section VIII E., Economic Impacts, in the preamble to the final rule for Occupational Exposure to Hexavalent Chromium. Federal Register: February 28, 2006 (Volume 71, Number 39), pages 10099-10385.

- The U.S. Environmental Protection Agency (EPA) typically figures that a proposed regulation will not have a significant economic impact on a small entity (e.g., small business, small government) if compliance costs for the affected entity are less than 1% of that entity's sales. EPA typically figures that the impact will be "unquestionably significant" if costs exceed 3% of a small entity's sales or revenues.[6]

In contrast to the Federal OSHA and EPA, the SCAQMD has not yet established any particular benchmark levels of compliance costs relative to revenues or profits that should viewed as acceptable or unacceptable or as affordable or unaffordable or as survivable or non-survivable.

In judging the affordability of PAR 1469 for individual hexavalent chromium electroplating/anodizing facilities and for the industry more generally, we suggest that the SCAQMD might consider the following benchmarks:

- If the annualized compliance costs for the proposed rule are less than 1% of revenues, the rule is unlikely to pose affordability problems;

- If the annualized compliance costs for the proposed rule are greater than 3% of revenues, the rule is likely to pose significant affordability problems and some of the producers affected at this level are likely to close; and

- If the annualized compliance costs exceed 5% of revenues, most of the producers affected at this level are likely to close.

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We suggest this set of benchmarks based on several factors:

- The chosen Federal EPA and OSHA benchmarks.

- The likelihood that hexavalent chromium electroplaters/anodizers within the SCAQMD will not be able to pass any significant share of PAR 1469 compliance costs through to their customers. Nearly all MFASC members in the District know of competitors nearby -- in Northern California, in San Diego, in Mexico, or in other States -- that won't face the PAR 1469 regulatory costs and that will take much of their business if they were to try to raise their prices by 3% or 5% or 10% to cover the PAR 1469 costs.

- The job shop electroplating industry (NAICS 332813, the industry in which the great majority of the 115 affected facilities are categorized) has had an average pre-tax profit margin over the past 27 years of less than 4%. This is a low-margin, highly competitive industry. Costs equal to 3% of profits would consume nearly all of this industry's typical profits, and costs at 5% of profits would consume more than all of typical profits.

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[6] U.S. EPA. Final Guidance for EPA Rulewriters: Regulatory Flexibility Act as Amended by the Small Business Regulatory Enforcement Fairness Act. November, 2006.

- We focus particularly on benchmarks involving a comparison between annualized compliance costs and typical annual revenues for various technical reasons. We focus on this comparison, as the District staff have provided in the draft SIA, for several reasons. First, summing all costs -- capital costs, other one-time costs, occasionally recurring costs, and annual O&M costs -- over many years into the future and then annualizing these costs provides a good, comprehensive single measure of the long-term compliance costs that a facility will bear. Second, typical annual revenues are a better representation of a firm's ability to pay costs than are typical annual profits. For small businesses, it is easier to influence the firm's reported profits in a manner that understates them and paints a misleading picture of the firm's financial health than is possible when reporting revenues. Third, the particular levels chosen for the benchmarks (e.g., 1%, 3%, 5%) should be judged based on the industry's rate of pre-tax profitability rather than post-tax profitability. In analyses that consider firms when they may be threatened with closure, tax rates are likely to be very low and compliance spending will generate little in the way of tax shields. Comparison of compliance costs against pre-tax rather than post-tax margins will provide a much more conservative analysis.

The SIA Should Do More in Portraying the Variability in PAR 1469 Compliance Cost Burden Across Affected Facilities

We are particularly concerned that the SIA estimate whether electroplating/anodizing facilities will face compliance costs that are affordable. How many of the 115 affected facilities will face costs that may force them out of business? The facility-based analysis that the District provides in the draft SIA gives information that helps in this direction, but the analysis in essence addresses only the average or typical facility in each of the 13 various categories into which the SIA divides the industry.[7] The analysis does not provide a comparison of costs to revenues for each of the 115 facilities. Specifically, the draft SIA's facility-based analysis compares the average projected compliance cost for a facility in the category against the estimated revenues for each of the individual facilities in that category and then averages the results, which are reported in Table 9 on page 32.

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This is the table of draft SIA results in which we are particularly interested. It provides some sense about whether the costs to comply with PAR 1469 are affordable or not. For the large hard chrome category, which we will use as an example, the table shows for the facilities in this category that compliance costs estimated under the "low cost scenario" amount on average to 1.9% of facilities' revenues. Under the "high cost scenario", compliance costs amount instead to an average of 2.7% of large hard chrome facilities' revenues. This range of impacts shown as extending from 1.9 % to 2.7% of revenues might be interpreted by many readers as suggesting that PAR 1469 poses no significant affordability issues for large hard chrome platers in the District. The reported range of impacts is below the 3% level that EPA considers unquestionably significant, and it is below the 5% level that we believe

[7] The draft SIA establishes thirteen categories of facilities, including: chromic acid anodizing (small, medium and other); decorative chromium plating (small, medium, large and other); hard chromium plating (small, medium, large and other); multiple plating or anodizing operations (large); and trivalent (other).

could cause closure of most of the affected producers. But this impression is misleading, we believe, because the District's analysis does not adequately show the variability of potential impacts on individual facilities around these average figures. Further analysis and scrutiny would show that many facilities in this category, as well as facilities in other categories that show similar ranges of average impacts that appear generally below affordability benchmarks, will likely have difficulty affording PAR 1469 compliance costs.

We would like the SIA to attempt to answer several specific questions. How many of the 115 affected facilities will face compliance costs from PAR 1469 that may force them out of business? How many will face annual compliance costs that exceed 5% of annual revenues, a level which we believe would clearly not be affordable for most electroplating/anodizing small businesses in the SCAQMD? How many will face annual compliance costs that exceed 3% of revenues, a level that EPA has termed "unquestionably significant" and that we believe would pose a high risk of closure for most businesses in this industry? We will provide some suggestions about how the District staff, using information they already have, might quickly perform a facility-by-facility comparison of costs to revenues that more fully portrays the range of variability in impacts and affordability and provides some answers to these questions.

For the cost portion of the cost-to-revenue comparison, the District does not develop compliance cost estimates for each of the 115 individual affected facilities nor does the District develop a compliance cost estimate for any specific one of the affected facilities. Instead, the District staff develops a cost estimate only for a typical or representative or average (not saying specifically which) facility in each of the 13 categories.

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For the revenue portion of the cost-to-revenue comparison, to the contrary, the District has acquired good information (from Dun and Bradstreet) on the revenues for nearly every one of the 115 individual affected facilities.[8] But in the eventual cost-to-revenue comparisons that are presented in the draft SIA (pages 32 and 33), the District does not portray how the variation in revenues across the facilities in a category results in cost-to-revenue ratios that differ from one facility to another. Table 9 shows only the average cost-to-revenue ratio for the facilities in each category. Specifically, for example, the figure showing that high scenario compliance costs for large hard chrome facilities amount to 2.7% of their revenues is derived as follows:

- The average high scenario cost for large hard chrome facilities is estimated. This figure is $29,667/year/facility, or $30,000/year/facility as shown in Table 9 after rounding.

- This average cost per facility is compared against the revenue information for each of the 18 hard chrome large facilities. In one of the backup spreadsheets that we were given, the $29,667 high scenario average cost estimate is compared facility-by-facility against the available revenue information for that facility. The highest revenue facility among the 18 large hard chrome

[8] Based on our limited understanding of the Dun and Bradstreet data set that the District has used, we suspect that the revenue information for each of the 115 facilities may actually be for the companies or other entities that own each facility. If so, considering total corporate revenues may overstate a facility's ability to afford compliance costs in instances when the facility constitutes a separable portion of the company's overall business.

facilities has annual revenues of $45.8 million per year, resulting in a cost-to-revenue ratio of 0.06% if it were to face the average high scenario large hard chrome facility compliance costs. The lowest revenue facility among the 18 large hard chrome facilities has annual revenues of $216,000 per year, resulting in a cost-to-revenue ratio for it, if it were to face the average high scenario large hard chrome facility compliance costs, that exceeds 14%. Five of the 18 facilities are shown in the backup spreadsheet as having cost-to-revenues ratios exceeding 3%. It would appear from the spreadsheet, and considering thus far only variability in revenues, that a substantial share of the large hard chrome category will face affordability issues, at least under the high cost scenario.

- The cost-to-revenue ratios for each of the 18 facilities in this category are then averaged, and the result is reported in Table 9 of the draft SIA only as the average figure of 2.7%.

The problem that we see with regard to the revenue side of the cost-to-revenue presentation in the draft SIA is simply that the impact of variability in facility revenues that is considered in the underlying spreadsheets is not portrayed in the SIA itself. Table 9 shows all but two of the 13 categories as having "Facility-specific … Cost Impacts" (the title of Table 9) that are below the 3.0% benchmark. Yet the information that the District has and has analyzed on differences in revenues across facilities indicates to the contrary that nearly every category has at least one facility that likely does exceed the 3% benchmark and faces significant affordability issues. 31-8 Cont

The issue that we are concerned with on the cost side of the draft SIA's facility-based impact analysis is different from and more substantial than that on the revenue side. On the cost side, the District simply does not analyze the degree to which compliance costs vary across the facilities within a category and thus has no opportunity to reflect the impact of variable compliance costs in the facility-by-facility comparison of costs against revenues.

The compliance cost estimates the District presents in the draft SIA have been developed not for individual facilities but instead for a typical or average or representative facility in each of the 13 categories or bins. The District may believe it does not have sufficient information on the important characteristics of each individual facility (e.g., number, size and character of Tier III tanks at the facility) to estimate compliance costs for each individual facility. Instead, from the limited number of site visits and the relatively few full surveys received, the District has judged for a typical facility in each of the categories how many Tier III tanks there are and the average square footage of these tanks. The following table shows a key portion of the District's cost analysis for the high cost scenario for the most important of the 13 categories, accounting for 106 of the 115 affected facilities. (This portion of the District's cost worksheet has been reordered somewhat in order to clarify the logic and flow of the cost analysis.)

	A	B	C	D	E	F	G
	TOTAL FACILITIES WITHIN BIN	% OF FACILITIES IN BIN WITH TIER III TANKS	# OF FACILITIES IN BIN WITH TIER III TANKS	ADJUSTED # OF TIER III TANKS PER FACILITY AT FACILITIES THAT HAVE THEM	TIER III TANKS NEEDING APCD CONTROL	AVERAGE TIER III TANK SIZE (SQ FT)	TOTAL SIZE OF TIER II TANKS AT A FACILITY (SQ FT)
ANODIZING Medium	18	83%	15	3.5	49	24.4	85.4
ANODIZING Small	14	80%	11	2	22	31	62
DECORATIVE Medium	11	25%	3	2	3	47	94
DECORATIVE Small	27	50%	14	1.3	8*	19.375	25.1875
HARD Large	18	50%	9	1.8	17	22.5	40.5
HARD Medium	7	43%	3	1	3	2.5	2.5
HARD Small	6	0%	0	N/A	0	N/A	0
DECORATIVE Large	5	0%	0	N/A	0	N/A	0

Referring, for example, to the Hard Chrome Large category, the District estimates that there are 18 such facilities that will be affected by PAR 1469, that half of them (9) have Tier III tanks, and that there are an average of 1.8 tanks per hard chrome large facility, for a total of 17 tanks in this category. The District further estimates based on site visits and survey results that the average size of a Tier III tank at hard chrome large facilities is 22.5 square feet. When multiplied by the estimated average of 1.8 Tier III tanks at large hard chrome facilities that have them, the District estimates that the average such facility has 40.5 square feet of Tier III tank surface area that will need to be controlled with APCDs. The cost analysis then proceeds beyond what is shown in the table above. The District assumes that the APCD to control a Tier III tank should be sized at 150 cfm/sq ft, assumes in the high cost scenario that there will be one APCD system per Tier III tank, and applies unit cost functions to the estimated air flow needing control to estimate both the capital and annual O&M costs for the APCD systems needed to control the Tier III tanks that are thought to exist among the estimated 18 hard chrome large facilities. The District follows a similar procedure in estimating the other sorts of compliance costs that PAR 1469 will entail for the facilities in this category, including costs for enclosures, source testing, permitting, etc. For each sort of cost, the District ultimately estimates the cost for the average facility in this category and the total cost for the entire set of facilities in this category. The total estimated high scenario compliance cost for the estimated 18 large hard chrome facilities is $534,000/year (page 8), eighteen times the cost of $29,642/yr that has been estimated for the average large hard chrome facility.[9] In the facility cost-to-revenue analysis as shown in the worksheet (though not in the SIA document itself), the District compares the $29,642/yr estimated average high scenario cost and the $21,542/yr estimated average low scenario cost for a large hard chrome facility sequentially against the annual revenue estimates for each of the 18 large hard chrome facilities.

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The high scenario and the low scenario compliance cost estimates for the average large hard chrome facility are computed based on that facility having exactly 17/18 or 0.944 Tier III tanks that need APCD control. In reality, though, some of the 18 large hard chrome facilities have no Tier III tanks (the District estimates that 9 of the 18 have no Tier III tanks), some have one Tier III tank, some likely have two, and perhaps a few have three or more Tier III tanks. The number of Tier III tanks that a facility has and that will need to be controlled with APCDs appears clearly to be the most important single factor that will

[9] The total and the average differ by a factor of 18.01, not exactly 18. The total figure is taken from the SIA itself while the average figure is taken from the backup worksheets we were provided. The small difference from the factor of 18 that is expected is perhaps due to rounding.

determine the facility's PAR 1469 compliance costs.[10] The more Tier III tanks a facility has, the higher the facility's compliance costs will be, in a roughly linear relationship. The number of Tier III tanks a facility has is likewise the most important factor that determines how one facility's compliance costs will differ from those for the other facilities in the same category. In our view, the key to reflecting variability in compliance costs across facilities in the SIA's facility-specific impact analysis lies in reflecting in the cost analysis the variability across facilities in the numbers of Tier III tanks that will need APCD controls. We will demonstrate one way in which the SIA's cost analysis could be expanded to reflect this variability, using as an example again the cost analysis for the high cost scenario for the large hard chrome category of facilities.

31-8 Con't

The District estimates in the draft SIA that there are 18 large hard chrome facilities, nine of which have no Tier III tanks and the other nine of which have 17 (adjusted) Tier III tanks that will need a total of 17 APCD systems (one system per Tier III tank in the high cost scenario). How might these 17 tanks/systems be distributed across the 18 large hard chrome facilities and what compliance costs might each of these facilities then face based on the number of tanks/systems each has?

We use a binomial expansion procedure to estimate the probability that any one of the eighteen facilities has various numbers of the Tier III tanks.[11]

[10] The SIA notes at the top of page 6 that the majority of the estimated PAR 1469 compliance costs are attributable to the capital, installation and O&M costs of controls for APC systems. The costs for APC systems relate directly to the number of Tier III tanks being controlled by these systems, figured at one system per tank (high cost scenario) or two systems per tank (low cost scenario), including costs for source testing and permitting. Table 2 on page 7 of the SIA demonstrates the importance of the number of Tier III tanks in determining PAR 1469 compliance costs. The costs for most of the largest PAR 1469 requirement categories (the rows in the table) are essentially linear with respect to the number of Tier III tanks, including the following six requirement categories: capital cost of new APC systems for existing Tier III tanks; initial source testing for new APC systems for existing Tier III tanks; permitting costs for new APC systems for existing Tier III tanks; screening test costs for Tier III tanks; operating and maintenance costs for APC systems; and annual permit renewal costs for Tier III tanks. In the low cost scenario (third of the four numerical columns in the table), these six requirement categories that relate directly to the number of Tier III tanks account for $1,957,000/yr or 74% of the $2,648,000/yr in total annual costs for the low cost scenario. For the high cost scenario, the costs for these six requirements account for $3,265,000/yr or 82% of the $3,977,000/yr in total annual costs (excluding from the total the amounts totaling $281,000 for existing electrolytic tanks controlled by chemical fume suppressants).

[11] We simulate the location of the 17 tanks across the 18 facilities as a set of 17 independent Bernoulli trials. A tank is, in concept, dropped randomly into one of the 18 facilities, with probability 1/18 (0.0555) that the tank ends up in any given facility. The binomial expansion (function available in Excel) then gives the probability that any number of tanks ends up at the given facility after all 17 tanks are placed or after all 17 trials are completed.

Bernoulli trials table, 17 trials, 0.05555 probability of "success" in each trial

# of "successes"	Probability of this # of successes	Probability of this # of successes or more
0	0.3785	1.0000
1	0.3784	0.6215
2	0.1781	0.2431
3	0.0524	0.0650
4	0.0108	0.0126
5	0.0016	0.0019
6	0.0002	0.0002
7	0.0000	0.0000
8	0.0000	0.0000
9	0.0000	0.0000

This table can be read to say, for example, that any one of the 18 large hard chrome facilities has a probability of 0.065 of having 3 or more tanks. The most likely numbers of tanks at any single one of these nine facilities is zero or one, with each of these numbers of tanks having a probability of 0.378 at any given facility. This Bernoulli procedure simulates the likely variability in numbers of Tier III tanks at the large hard chrome facilities, and we next simulate the likely variability in compliance costs across the large hard chrome facilities by attaching an estimate of the likely compliance cost per tank to the estimates for the numbers of tanks.

The compliance cost estimates that District staff have developed in the draft SIA show, for the high cost scenario, that roughly 82% of the annual compliance costs for a facility relate linearly to the number of Tier III tanks the facility has (see footnote 8, above). For large hard chrome facilities that will face an average compliance cost that the draft SIA estimates at $29,642/yr, then, 82% of this cost or $24,306 relates directly to the number of Tier III tanks the facility has, and approximately 18% of this amount, or $5,336 appears to relate to other factors. The average large hard chrome facility for which these cost estimates were developed has 17/18 (0.9444) Tier III tanks (17 Tier III tanks across 18 large hard chrome facilities). The compliance cost per tank, as the draft SIA estimates it, is thus $24,306/0.9444 or $25,736. A mathematical function stating how the District's high scenario cost estimate for large hard chrome facilities relates to the number of Tier III tanks that one of these facilities has would thus be:

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High scenario compliance cost at large hard chrome facility = $5,336/yr + ($25,736/yr) x (# Tier III tanks)

We apply this cost function to simulate how the compliance cost a large hard chrome facility will bear relates to the number of Tier III tanks it has, and we combine this cost function with the Bernoulli estimates for how the number of tanks a facility has is likely to vary across the 18 large hard chrome facilities.

The table below takes this analysis a step further, by combining information on the variability of revenues across the 18 large hard chrome facilities with this information we have developed on the variability of costs across these facilities. The table estimates the probability that a random facility among the 18 will have annual compliance costs exceeding 3% of that facility's annual revenues.

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Number and % of Large Hard Chrome Facilities With Compliance Costs Exceeding 3% of Revenues
High Cost Scenario

Revenues for Hard (Large) Facilities	Probability of this revenue level	Annual Cost if at 3% of Revenues	Minimum # of tanks req'd to yield this cost	Minimum # of tanks req'd to yield this cost	Probability of this # of tanks or more for this facility	Joint probability
$45,845,045	0.0556	$1,375,351	53.23	54	0	0.0000
$7,736,964	0.0556	$232,109	8.81	9	0.0000	0.0000
$6,863,936	0.0556	$205,918	7.79	8	0.0000	0.0000
$4,511,352	0.0556	$135,341	5.05	6	0.0002	0.0000
$4,210,246	0.0556	$126,307	4.70	5	0.0019	0.0001
$3,851,839	0.0556	$115,555	4.28	5	0.0019	0.0001
$3,271,441	0.0556	$98,143	3.61	4	0.0126	0.0007
$3,531,073	0.0556	$105,932	3.91	4	0.0126	0.0007
$3,202,736	0.0556	$96,082	3.53	4	0.0126	0.0007
$2,000,000	0.0556	$60,000	2.12	3	0.0650	0.0036
$1,774,633	0.0556	$53,239	1.86	2	0.2431	0.0135
$1,412,912	0.0556	$42,387	1.44	2	0.2431	0.0135
$896,802	0.0556	$26,904	0.84	1	0.6215	0.0345
$775,000	0.0556	$23,250	0.70	1	0.6215	0.0345
$700,000	0.0556	$21,000	0.61	1	0.6215	0.0345
$511,726	0.0556	$15,352	0.39	1	0.6215	0.0345
$500,000	0.0556	$15,000	0.38	1	0.6215	0.0345
$216,278	0.0556	$6,488	0.04	1	0.6215	0.0345
					Summed probability:	0.2401
					Expected # Facilities:	4.3222
					Percent of Facilities:	24.0%

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The first column of this table shows the annual revenues that the District has estimated for each of the 18 large hard chrome facilities. The second column assigns an equal probability (1/18 = 0.0556) to each of the 18 revenue estimates for large hard chrome facilities. In the third column, we show what the annual compliance cost would need to be for each of the 18 facilities if costs were to exceed 3% of facility revenues (e.g., for the bottom-most facility in the list with annual revenues of $216,278, compliance costs would need to exceed $6,448/year if they were to exceed 3% of revenues for this facility). In the fourth column, we show how many Tier III tanks would need to be at a facility in order for the facility's compliance cost to exceed the cost figure shown in the third column and exceed 3% of revenues. The number of tanks shown in the fourth column has been computed by using the cost formula cited earlier:

High scenario compliance cost at large hard chrome facility = $5,336/yr + ($25,736/yr) x (# Tier III tanks)

The fifth column rounds up the number of Tier III tanks cited in the fourth column to the nearest integer. (An actual facility cannot have a fraction of a tank.) The sixth column shows the results of the Bernoulli trials and binomial expansion: the probability that a facility has a number of tanks equal to or exceeding the number in the fifth column. The sixth column shows the joint probability of the facility having both

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the revenue figure shown in the first column and a number of tanks equal to or exceeding the number that would cause compliance costs to exceed three percent of this revenue figure.

At the bottom of the sixth column are the results of this analysis for the high cost scenario for the 18 large hard chrome facilities:

- The joint probability that a facility has the revenue figure shown in the first column and a number of tanks sufficient to cause compliance costs to exceed 3% of these revenues is 0.24.
- The expected number of the 18 large hard chrome facilities that will have compliance costs that exceed 3% of their revenues is thus 0.24 x 18 = 4.32.
- The expected value of 4.32 facilities incurring compliance costs that exceed 3% of revenues represents 24% of the 18 large hard chrome facilities.

In other words, taking account of the variation among large hard chrome facilities in revenues and compliance costs, we estimate using the estimates in the draft SIA that 24% of the 18 facilities are likely to incur compliance costs (high cost scenario) that exceed 3% of their revenues. In our view, any facility for which long-term compliance costs exceed 3% of the facility's revenues would have its continuation in business threatened.

We performed this analysis also for large hard chrome facilities to estimate the number and percentage of the 18 facilities that would have costs exceeding 5% of revenues (likely resulting in closure of these facilities), and performed these calculations for both the District's high cost scenario and for the low cost scenario. The results are shown in the table below.

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Potential Closures Among Large Hard Chrome Facilities Due to PAR 1469 After Consideration of Variability Across Facilities in Revenues and Compliance Costs

	High Cost Scenario	Low Cost Scenario
Percentage of facilities with costs > 3% of revenues – threatened closures	24%	17%
Percentage of facilities with costs > 5% of revenues – likely closures	15%	9%

We suggest that the District should perform analyses similar to this one for the additional categories of facilities in order to estimate the numbers of facilities facing compliance costs exceeding affordability thresholds after considering the variability of revenues and costs. We expect this analysis would show that PAR 1469 would likely lead to the closure of some 10 – 20% of the Cr(VI) electroplating/anodizing industry in the SCAQMD.

We are particularly concerned that the District should perform this sort of analysis as a part of the SIA for the small decorative chrome category of facilities, which includes all or nearly all of the facilities that are now controlled with chemical fume suppressants (CFS) only. Our preliminary calculations show that the PAR 1469 low scenario compliance costs would cause the closure of more than one-third of these

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small facilities even if CFS were to be recertified. If CFS are not recertified, then the high scenario compliance costs would be sufficient to cause the closure of roughly 60% of the facilities in this category. We believe it is very important for the District in the SIA to complete a thorough analysis of the degree to which small decorative chrome facilities will be able to afford compliance with PAR 1469. We believe this analysis would show that without financial assistance from the State and/or District that PAR 1469 would cause the closure of between 35 and 60 % of these facilities.

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District Staff Should Seek Funding to Assist With Capital Costs for Add-on APCDs in Any Event, Not Only if Non-PFOS Fume Suppressants Are Not Recertified

The draft SIA presents cost estimates in terms of the average annual costs the industry will face each year through 2035. In reality, though, each of the businesses in the industry must get over the hump of the initial capital costs and "first year" costs of the regulation in order to have an opportunity to try to continue in business until 2035. The draft SIA projects these initial costs as $100,000 to $150,000 for the average facility,[12] and as several hundred thousand dollars for many individual facilities. How is the typical electroplating or anodizing small business going to come up with several hundred thousand dollars to meet this particular set of environmental requirements and then see if it can continue in business for the long haul? Virtually none of the affected businesses are publicly owned -- almost none of them can issue stock or bonds or has a parent company that can do so. Most of them are family-owned. Many of them can't access a bank loan for several hundred thousand dollars, and their owners are unlikely to have the personal assets available to pay this amount.

Furthermore, who is going to invest this sort of money or what bank is going to loan this sort of money for a business with: a) thin profit margins in the first place; b) an ever-shrinking base of manufacturing customers in the South Coast area; and c) the inevitable prospect of additional costly regulatory requirements in the future? In addition to Rule 1469 there will be Rule 1426 on additional metals beyond hexavalent chromium; Rule 1480 on monitoring; community air toxics programs; tighter wastewater requirements; increasing fees for all sorts of permits; tighter building codes; emergency planning requirements; training, certification and paperwork requirements; and so forth. Who is going to help the South Coast electroplaters and anodizers get over the hump of the initial costs for Rule 1469 when the future looks like this?

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The final SIA should include an analysis that more clearly identifies the initial capital costs of PAR 1469 and applies simple credit-worthiness tests to determine whether the affected facilities can finance these costs. The adoption resolution for PAR 1469 should commit District staff to seek funding for assistance with capital investments for add-on APCD controls in any event for this industry, not solely if non-PFOS chemical fume suppressants cannot be recertified. Perhaps the financial assistance could be targeted for facilities that are projected to face compliance costs that exceed a specified percentage of their typical revenues, as calculated using the District staff's procedures for estimating costs and revenues.

[12] See Table 2, page 7. The summed "one-time costs" in the high cost scenario total approximately $17 million, which when spread across the 115 affected facilities equals nearly $150,000 for the average facility. The projected costs in the low-cost scenario are about 2/3 of those projected for the high cost scenario.

SCAQMD staff received a substantial comment letter from the Metal Finishing Association of Southern California regarding the Revised Draft Socioeconomic Impact Assessment (RDSIA) for PAR 1469 close to the Public Hearing.

Responses to Comment Letter from Metal Finishing Association of Southern California regarding the Socioeconomic Impact Assessment for PAR 1469 (8/23/18, submitted via email by Environomics)

SCAQMD staff worked extensively with MFASC and their consultant Environomics to ensure that the RDSIA closely represents actual cost impacts associated with PAR 1469. Based on a detailed review of MFASC's comments and follow-up conversation with Environomics, SCAQMD staff concluded that:

- MFASC overestimated the overall compliance cost of PAR 1469 by more than $2,000,000 annually as a result of overly conservative assumptions about the proposed rule requirements.
- The MFASC overestimated costs based on assumptions for building enclosures and spray rinse requirements but did not provide enough information to substantiate the cost estimates. Without information to substantiate the cost, the SCAQMD staff cannot determine if the costs include modifications or installation of equipment that goes above the requirements of PAR 1469.
- MFASC's cost estimates are based on a limited subset of facilities (i.e., ten member facilities) that were extrapolated to all affected sources as opposed to data used in SCAQMD's RDSIA which are based on costs from more than 62 facility surveys and over 50 site visits.
- The subset of facilities used for MFASC's cost estimates is not representative of the entire PAR 1469 facility universe.

Further, SCAQMD staff reached out to Environomics to ask for data to verify the cost assumptions presented in MFASC's cost analysis, however, despite repeated requests the data was not provided. In addition, SCAQMD staff presented detailed cost assumptions at Working Group Meeting #9 on January 4, 2018. SCAQMD released the Draft Socioeconomic Impact Analysis on Friday, July 13, 2018 for public review. SCAQMD staff has provided detailed responses to MFASC's comments below.

31-1 Response: SCAQMD staff have worked with Environomics and members of the MFASC to recognize costs associated with PAR 1469 as accurately as possible. Numerous calls and emails were exchanged between staff and representatives of MFASC and/or Environomics to discuss cost assumptions as well as work in progress. In addition, cost assumptions and unit costs were discussed at several working group meetings, and cost-related comments were incorporated into the socioeconomic analysis as appropriate. It is important to note the cost estimates to control Tier III Tanks that are currently uncontrolled, as calculated in the Revised Draft Socioeconomic Impact Assessment (RDSIA) correlate well with the Environomics estimate, in spite of the limited sample size used by

Environomics to calculate costs. Therefore, the estimate agrees with the RDSIA for the costs to control Tier III Tanks that MFASC representatives have publicly acknowledged should be controlled.

The comment letter overestimates costs that are directly imposed by PAR 1469 for building enclosures and spray rinsing, as discussed in more detail in Responses to Comments 31-4 and 31-5, respectively. This overestimation amounts to more than $2,000,000 in annualized costs. Removing these overestimated costs for building enclosures and spray rinsing results in an annualized estimate that is very close to the high estimate calculated in the RDSIA.

The comments appear to be based on outdated assumptions from rule requirements that have changed, particularly with regard to the cost estimates for building enclosure costs. In addition, many of the assumptions in the comment letter are based on a very small sample size that are extrapolated to the entire universe of PAR 1469 facilities. For example, the cost estimate for spray rinsing is based on six facilities; costs averaged for these facilities and used for all facilities subject to PAR 1469. In addition to the sample size being very small, there is no assurance that the sample is representative of the PAR 1469 facility universe.

In contrast, cost estimates calculated in the RDSIA are based on a survey sent to all PAR 1469 facilities with a response rate of over 50%, site visits to more than 50 facilities, 13 Working Group meetings where potential rule requirements were discussed in detail, and numerous discussions with representatives from the MFASC that focused specifically on minimizing cost impacts to chrome plating and chromic acid anodizing facilities. Staff worked to develop proposed rule requirements that minimize costs without compromising control of hexavalent chromium. In many cases, several options are allowed to provide flexibility for owners and operators. These optional requirements are a direct result of working with the MFASC and industry stakeholders to explore ways of providing flexibility and limiting costs.

The RDSIA makes conservative cost assumptions and likely overestimates actual costs, particularly under the high-cost scenario. The reason is that costs for compliance with PAR 1469 are driven by the number of new air pollution control (APC) systems assumed to be necessary for existing Tier III Tanks. Approximately 75% of the cost estimated in the RDSIA is attributed to new APC systems. The number of APC systems is directly related to capital costs, operating and maintenance (O&M) costs for the APC systems, permitting and source testing costs. The number of Tier III Tanks is likely overestimated in both the low-cost scenario and the high-cost scenario, for the following reasons:

- The number of Tier III Tanks in the RDSIA include tanks that may be Tier II Tanks if they are operated within the temperature and tank bath concentrations defined in PAR 1469 Appendix 10. PAR 1469 allows Tier II Tanks to be controlled using much less expensive methods than Tier III Tanks. For example, a tank cover or Merlin hood is far less expensive than the capital cost of an APC system, and there are no costs associated with O&M, permitting, annual permit fees, source testing or emissions screening.
- Many of the stripping and electropolishing tanks that are currently assumed to be Tier III Tanks in the RDSIA may not even be considered a Tier I Tank and would not be regulated under PAR 1469 if the tank bath is operated at a hexavalent chromium concentration below 1,000 ppm. A facility owner/operator may choose to operate a stripping or electropolishing tank below 1,000 ppm through several methods including converting to a chemical stripping process or changing the tank bath frequently enough to ensure the concentration stays below 1,000 ppm.
- Under the high-cost scenario, 27 APCs are assumed to be installed at decorative plating facilities. However, if non-PFOS chemical fume suppressants are not certified, staff will work with CARB to identify a low-cost compliance option that is as equally effective as chemical fume suppressants and seek funding to assist facilities in installation of pollution controls or use of non-toxic alternatives. This low-cost compliance option is expected to be less expensive than a HEPA-controlled APC system. It is not possible at this time to speculate on the configuration of the low-cost option; however if it does not involve add-on pollution controls, O&M costs, permitting and source testing costs would be eliminated. The current estimate of up to 27 APCs under the high cost scenario may be eliminated.
- Under the high-cost scenario, the RDSIA assumes that most tanks will require an APC system sized to control emissions from that individual tank. This is a conservative assumption as staff believes there are many opportunities for a plating or anodizing facility to realize savings by venting multiple tanks to a common APC system, moving tanks that are not currently located in proximity to each other and venting to a common APC system or venting an existing tank required to be controlled under PAR 1469 into an existing APC system, where capacity of that system allows.

Staff cannot estimate the number of APCs associated with Tier III Tanks that may be reduced under the first two bullets above, as any estimate would be speculative. Therefore, the RDSIA conservatively assumed all those tanks would require installation of APC systems. These changes are associated with facility business decisions and many factors influence whether a facility owner or operator may decide to change a current tank or

plating/anodizing process instead of installing an APC system under PAR 1469.

SCAQMD staff is unable to verify costs presented in the comment letter, in spite of repeated requests from staff to provide the name of the specific facility for which costs were calculated. Therefore, staff has no means to verify and compare PAR 1469 requirements and resulting costs calculated in the RDSIA with costs calculated by Environomics.

Regarding the bullets points under Summary of Comments on page 2 of the comment letter, please see Responses to Comments 31-2 through 31-9..

31-2 Response: The use of distinct unit costs for air pollution control (APC) system sizes of 5,000 cubic feet per minute (cfm), 10,000 cfm and 20,000 cfm was due to the fact that the stated unit costs are correlated with those specific sizes. With regard to the analysis in the RDSIA, it should be noted that no APC systems are expected to be larger than 14,100 cfm (i.e. low estimate for Decorative – Medium facility category). In order to be cost conservative, a unit cost of $17 cfm was applied to the APC systems serving new Tier III Tanks within that facility category. A unit cost of $14/cfm, corresponding to an APC system size of 20,000 cfm is not used in the RDSIA analysis.

Regarding the cost of local approvals, the RDSIA acknowledges that the costs estimated do not include local approvals due to the uncertain and variable nature of these approvals. Cost estimates do not include costs that the city or municipality may impose for building inspections, approvals and upgrades to meet local building codes for the facility. For example, a facility may need to meet the current building code or seismic requirements. No costs were assumed for items such as building inspections, approvals, and upgrades imposed by the city or municipality. Each city or municipality may have different requirements relative to installation of APC systems, and staff cannot reasonably predict these costs.

The MFASC accurately states that the facility-aggregated ventilation rate was multiplied by the unit cost to develop the average facility cost for APC controls at all facilities with Tier III Tanks within a particular category. For the high cost estimate, the unit cost for all facility category was $23/cfm, except for two category where the average APC system size was expected to be above 5,000 cfm. In those cases, $17/cfm was used. The total facility cost for APC systems is the same whether the total aggregated flow rate is used or an average size system is costed out individually and then summed to get the total facility cost.

The low-cost scenario used an assumption of two tanks per APC system for the average facility within a particular category. In most cases, this assumption results in one assumed APC system at the average facility with

Tier III Tanks within that category. The appropriate unit cost (either $17/cfm or $23/cfm), depending on the average system size was then multiplied by the facility-aggregated ventilation rate to calculate the total cost.

While the suggestion of applying a smoothing function between the unit costs that were obtained for discrete size APC systems may be useful in certain situations, staff believes that it may infer a higher level of precision than is appropriate for this analysis, since average facility costs were assumed for each facility category. Staff believes grouping or categorizing of facilities, and applying the known unit cost data is the appropriate way of characterizing the survey data and this was the approach used in the RDSIA.

31-3 Response: The approach used in the RDSIA to calculate annual operating and maintenance (O&M) cost as a percentage of capital cost is appropriate and conservative for the following reasons:

1. This approach was used in 2006 revision to the CARB Air Toxics Control Measure (ATCM) for chrome plating. It has been modified to reflect the survey results as submitted by Environomics.
2. The RDSIA calculates a separate line item for electrical power to drive the ventilation blower. Since electrical power is considered an O&M cost, the actual percentage of O&M as calculated in the RDSIA is higher than 18% as a percentage of the capital cost.
3. The approach is directly correlated to system cfm through the cost calculation methodology, since the facility-aggregated ventilation flow rate (in cfm) is multiplied by the appropriate system-sized unit cost. Please also see Response to Comment 31-2.
4. One of the largest cost components of annual O&M costs is replacement of HEPA filters. The Environomics data indicates a HEPA filter change frequency of twice per year. This filter change frequency is not consistent with the discussions staff had with facility operators in over 50 site visits during rule development of PAR 1469. Many facilities reported that HEPA filters may last considerably longer than one year, depending on flow rate and particulate loading. Therefore, calculating O&M based on a frequency of twice per year for a HEPA filter change likely overestimates O&M costs in the comment letter.

As noted in Response to Comment 31-2, a unit cost of $14/cfm, corresponding to an APC system size of 20,000 cfm is not used in the RDSIA analysis.

31-4 Response: Individual responses to the six types of costs suggested by the MFASC are given below:

1. The RDSIA conservatively assumed some roof vents might need to be closed based on all 111 affected facilities, not just the nine facilities used in the comment letter.
2. From site visits to more than 50 facilities subject to PAR 1469, staff has observed that nearly all facilities currently have existing doors or windows installed in enclosure openings. The RDSIA recognizes additional costs at approximately 10% of facilities that may need to spend additional money to enclose an existing building that may not meet the building enclosure opening limitation of 3.5% of the building envelope. Both of the examples cited are within the cost estimates assumed in the RDSIA.
3. The statement that *"all the openings on one of the two opposing walls must be fitted in some manner that keeps them generally closed…"* is not accurate. In addition to closing one or both sides of a building enclosure, PAR 1469 subparagraph (e)(2)(B) allows an owner/operator to *"Utilize a barrier, such as large piece of equipment that restricts air from moving through the building enclosure."* This is one example of an optional rule requirement that arose from discussions with industry stakeholders to provide flexibility under the rule for owner/operators in an effort to minimize cost. While this requirement does exist independent of the 3.5% limitation, PAR 1469 provides sufficient flexibility to meet the building enclosure opening, while allowing openings on opposite walls to remain open in certain situations.
4. As previously stated, from site visits to more than 50 facilities subject to PAR 1469, staff observed that nearly all facilities currently have existing doors or windows installed in enclosure openings. Therefore, no additional cost is expected to be incurred by facility operators closing doors that directly face a sensitive receptor or school within the distances prescribed in PAR 1469.
5. As previously stated, the RDSIA recognizes additional costs at approximately 10% of facilities that may need to spend additional money to enclose an existing building that may not meet the building enclosure opening limitation of 3.5% of the building envelope. Regarding the situation described in the comment where a facility operator elects not to close one end of a large building due to equipment access considerations but instead to construct a more expensive enclosure around the plating operation within the larger facility, the socioeconomic analysis typically only includes the costs that are directly related to PAR 1469 requirements. In the example in the comment letter, the RDSIA did not recognize the costs of a business decision that may result in higher costs than those that are the direct result of the requirements of PAR 1469, as those are speculative.
6. Regarding proper ventilation, previous comments submitted by MFASC and other commenters dealt specifically with closing of roof vents. Earlier versions of PAR 1469 proposed to require closure of all roof vents. SCAQMD staff worked with industry stakeholders to limit

this requirement to roof vents located within 15 feet of a Tier II or Tier III Tank. In subsequent discussions with industry representatives, the issue of proper ventilation air exchange rate was no longer identified as an issue. Staff believes that PAR 1469 provides sufficient flexibility to allow for proper ventilation without added costs.

Staff acknowledges that there may be more than one building enclosure at a facility. However, not all enclosure may house a Tier II or Tier III Tank. Based on staff's observations during facility site visits, a reasonable assumption of one enclosure housing a Tier II or Tier III Tank per facility was used.

31-5 Response: The comment accurately states that costs were assumed for drip trays at all Tier III and electrolytic tanks irrespective of whether the tank was part of a line with an automated hoist, in order to be conservative. The assumption of one drip tray per tank further assumes that drip trays will be sized to span between tanks in close proximity to each other, as many small plating shops are configured. During facility site visits, staff found that chromium plating and chromic acid anodizing lines have a well-defined direction of travel during operations. These observations validate the assumption of one drip tray per tank.

The RDSIA's assumption does not mean that staff presumed the only feasible compliance method was the use of drip trays or that they represent the only method that operators will choose to meet the spray rinsing requirements. The cost estimates assume that most facilities will choose the lowest-cost option that works for their configuration. It is assumed that the lowest cost option will probably be drip trays in most cases. However, PAR 1469 also allows for rinsing above the tank with low-pressure spray nozzles, as well as rinsing above the tank with high pressure spray nozzles provided the tank is shrouded by splash guards. Costs are provided for other scenarios as well as drip trays.

The MFASC relies on the six facilities that provided a survey response to develop assumptions for all facilities in the PAR 1469 universe. However, more than half of the facilities in the PAR 1469 universe include one or more rinse tanks within the plating or anodizing line, eliminating or greatly reducing the need for spray rinsing. This leaves a minority of facilities where it may be necessary to conduct spray rinsing at all. Furthermore, discussions with industry stakeholders have focused on compressed air drying of parts after rinsing, and changes to the proposed rule requirements were made to accommodate the preferred industry practice.

31-6 Response: The RDSIA did not include personnel labor costs as suggested, or the cost to shut down production during a source test as the amount of these costs are speculative and not typically recognized in a socioeconomic assessment.

Regarding the cost of preparing a permit application, SCAQMD permitting staff is available to consult with facility operators on the elements necessary to submit a complete permit application. In general, this includes the application paperwork as well as the specifications for the control equipment. Based on discussions with contractors, the unit cost quoted is for a comprehensive suite of services from the contractor, from design through installation of the APC equipment and no additional cost for these elements is estimated in the RDSIA. Therefore, staff believes the cost to the facility operator to submit the permit application has been considered in the RDSIA.

A clarification has been added to the final staff report that SCAQMD staff will make an effort to minimize costs by consolidating equipment listed in the permits.

31-7 Response: The RDSIA based assumptions for Tier III tank estimates from compliance-staff site surveys and facility-completed written surveys and information was obtained to compile a reasonably representative number of facilities across most of the non-trivalent facility categories. Apportioning tank counts uniformly across the 12 non-trivalent facility categories does not yield an accurate distribution of presumed APC system installations, and would likely skew high in cost-revenue ratios for facility categories not subject to the APC add-on requirement and corresponding costs.

For facility categories with reported Tier III Tanks provided in either compliance-staff site surveys or facility-submitted written survey responses, the response rate was nearly 52%. When weighting the response rate by facility categories as a function of reported Tier III Tank counts, the response rate was nearly 51%. Therefore, the survey results portray a representative cross-section across facility categories to make reliable assumptions for APC system costing within each facility category.

Tier III Tank categorization in the RDSIA was made conservatively and the actual number of Tier III Tanks that will be subject to the APC system requirement will likely be less than the number used in cost calculations for the high-cost scenario. For example, Tier II Tanks were counted towards the Tier III Tank total count, but do not require an add-on APC system and in fact meet compliance by use of a tank cover that becomes a one-time capital expenditure and is overall significantly cheaper than the installation and O&M of an APC system.

Regarding the comment on assumptions based on limited number of survey responses, the comment refers to a unique case where there is more than one tank at the facility. Based on over 50 facility site visits conducted by staff, the majority of the 27 are decorative facilities and only have one

electroplating tank. There is a small overlap between decorative chrome plating facilities that are currently controlled only by chemical fume suppressants and also have Tier III tanks. Therefore, the assumption of one APC system per facility if fume suppressants are not certified is appropriate. Please see Response to Comment 31-1 regarding low-cost alternative that meets the same emission limit as chemical fume suppressants.

Regarding the comment on adjusted Tier III Tank counts, for the Anodizing – Medium facility category, the count was adjusted to remove 20 passivation and chem film tanks that are currently air sparged and would be candidates for agitation using fluid eductors, which have a much lower cost. The Decorative – Medium and Decorative – Small facility category tank counts were adjusted to remove stripping tanks that have a hexavalent chromium concentration lower than 1,000 ppm. Tables 1-8 and 1-9 in the final Staff Report (page 1-20) include the requested data.

Regarding the comment on venting multiple to a single APC system, the RDSIA presents two costing scenarios, including the high-cost scenario in which each tank is assumed to be vented to its own APC system, and a low-cost scenario where two tanks were assumed to be vented to one APC system.

The analysis conducted in the RDSIA attempted to identify all sources of cost from one-time capital expenditures to recurring O&M and compliance costs. The evolution of the assumptions and rule language for PAR 1469 has included the input from industry stakeholders over 13 Working Group Meetings, multiple Stationary Source Committee hearings, more than 50 site visits, and correspondence with industry and economic consultants. Through this continual input, the RDSIA accurately estimated costs associated with PAR 1469, but makes conservatively higher cost assumptions to allow for unforeseen expenses incurred as a result of compliance. For example, as previously stated, the count of Tier III Tanks used in the analysis includes Tier II Tanks. Please see Responses to Comment 31-5 regarding spray rinsing and 31-6 regarding permitting.

The language in the RDSIA is neutral with respect to low-cost scenario versus the high-cost scenario and recognizes that this represents a range of potential costs since each facility would make a specific business decision as to method of compliance.

Regarding the comment on discount rate, SCAQMD staff began to calculate cost-effectiveness of control measures and rules using the Discounted Cash Flow method with a discount rate of 4%. The choice of the 4% discount rate was based on the 1987 real interest rate on 10-year Treasury Notes and Bonds, which was 3.8%. The maturity of 10 years was chosen because a

typical control equipment life is 10 years; however, a longer equipment life would not have corresponded to a much higher rate- the 1987 real interest rate on 30-year Treasury Notes and Bonds was 4.4%. Since 1987, the 4% discount rate has been used by SCAQMD staff for all cost-effectiveness calculations, including BACT analysis, for the purpose of consistency. The incremental cost reported in this assessment was thus annualized using a real interest rate of four percent as the discount rate. As a sensitivity test, a real interest rate of one percent was also used, which is closer to the prevailing real interest rate. Staff has seen nominal interest rates of 5%-7% used in regulatory impact analyses (including by the California Air Resources Board), but is not aware of regulatory impact analyses utilizing a 7% real interest rate.

On August 8, 2018, staff published the RDSIA, which included an additional provision for a low-cost compliance option that is as equally effective as chemical fume suppressants. Paragraph (l)(5) in PAR 1469 allows for use of this SCAQMD-approved alternative if no certified chemical fume suppressant is available after July 1, 2021. Although the probability for certification of a non-PFOS wetting agent chemical fume suppressant by 2021 cannot be ascertained at this time, the comment does not acknowledge the availability of the alternative compliance option, which adds additional pathways for a facility to avoid the requirements assumed in the high cost scenario. Staff identified four outcomes for the 27 facilities using chemical fume suppressants currently to meet the 0.01 mg/amp-hr emission limit:

1. By July 1, 2021, a certified non-PFOS wetting agent chemical fume suppressant is approved, and facilities require no modifications to their current process line;

2. If no certified chemical fume suppressant is available, facilities may use an SQAQMD approved alternative that achieves the equivalent emission limit as the chemical fume suppressant, and SCAQMD will assume the cost for initial source test verification of the emission limit;

3. If no certified chemical fume suppressant is available and there is no achievable means of meeting an equivalent emission limit, the facility would then be required to install an APC system for emission control of electrolytic tanks. SCAQMD staff is committed to seeking funding options for these smaller facilities should this be the case.

4. The facility can opt to phase out the use of hexavalent chromium by July 21, 2022.

31-8 Response: In response to the request to highlight the individual facilities most impacted by compliance costs, staff applied the facility-based impact analysis to this subset of facilities meeting SCAQMD's definition of a small business for the purpose of qualifying for access to services from SCAQMD's Small Business Assistance Office, or those facilities with an annual revenue of $5 million or less and 100 or fewer employees. Based on this definition, 64 out of 115 potential facilities were identified as a small business. These facilities have higher average cost impacts when compared to the average cost impacts of all 115 affected facilities. These 64 facilities have an average annual cost impact of 3.4% to 6.0% across all facility categories, with the most significant impacts affecting the Decorative (Medium) (7.1% - 11.0%), Anodizing (Medium) (5.4% - 8.8%), Anodizing (Small) (5.6% - 8.4%), and Decorative (Small) (3.8% - 8.3%) categories. All other categories had average annual cost impacts generally less than 3.1%. Upon closer inspection, a significant amount of the cost burden is potentially due to SCAQMD's assumptions regarding the classification of Tier II Tanks as Tier III Tanks leading to very conservative cost estimates (see Response to Comment 31-1). In addition, we have found some issues with Dun & Bradstreet's revenue and employee data that are also contributing significantly to the excess cost impacts on the subset of facilities classified as small businesses. We duplicated Table 9 of the RDSIA for the 64 facilities that meet the criteria of a small business in Table A-1 below.

Table A-1
Summary of Average Cost Impacts for 64 Facilities that Meet Small Business Definition (less than $5,000,000 in annual revenue and fewer than 100 employees)

Category	Average Facility Annual Cost (Low Cost Scenario - High Cost scenario)	Range of Facility Annual Cost (Min - Max)	Average Cost Impacts (Low Cost scenario - High Cost Scenario)
Anodizing (Medium)	$55,000 - $90,000	$59,094 - $97,154	5.4% - 8.8%
Anodizing (Small)	$44,000 - $65,000	$43,854 - $65,531	5.6% - 8.4%
Decorative (Large)	$3,000 - $3,000	$3,181 - $3,245	2.0% - 2.0%
Decorative (Medium)	$16,000 - $24,000	$15,514 - $23,970	7.1% - 11.0%
Decorative (Other)	$3,000 - $3,000	$3,038 - $3,108	3.0% - 3.0%
Decorative (Small)	$12,000 - $26,000	$12,118 - $26,482	3.8% - 8.3%
Hard (Large)	$22,000 - $30,000	$21,542 - $29,642	2.3% - 3.1%
Hard (Medium)	$7,000 - $7,000	$6,201 - $6,253	1.3% - 1.3 %
Hard (Small)	$2,000 - $4,000	$1,102 - $4,109	0.2% - 0.3%
Trivalent Other	$0 - $0	$226 - $226	0.0% - 0.0%
Total	**$22,000 - $36,000**	**$226 - $97,154**	**3.4% - 6.0%**

In an effort to be cost-conservative, the estimate of Tier III Tanks in the RDSIA includes tanks that will be Tier II Tanks if they are operated within the temperature and hexavalent chromium concentration defined in PAR 1469 Appendix 10. PAR 1469 allows Tier II Tanks to be controlled using much less expensive methods such as covers and mechanical fume suppressants as compared to Tier III Tanks which will require add-on pollution control devices, however the RDSIA assumes all Tier II Tanks will be Tier III tanks as a conservative cost assumption.

In addition, many of the stripping or electropolishing tanks that are currently assumed to be Tier III tanks in the RDSIA can drop below a concentration of 1,000 ppm for Tier I Tank and would not require in tank or add-on pollution controls to meet the emission limit requirements under PAR 1469. As shown in Table 1-9 of the Draft Staff Report, operators of stripping and electropolishing tanks have demonstrated that a tank bath can operate below a hexavalent chromium concentration of 1,000 ppm.

An actual example of an individual facility within the Anodizing (Small) category contains two stripping tanks that were identified as Tier III Tanks that could be considered non-Tier III Tanks. Under current conservative cost assumptions, this facility has a cost-to-revenue ratio of 12.5% to 18.7% for the low and high cost scenarios. Operating these tanks as non-Tier III Tanks would significantly reduce the facility costs from annualized capital costs and O&M costs for installing and operating APCs. The estimated cost-to-revenue would be 1.4%. With this more accurate estimate of the cost-to-revenue the revised average cost-to-revenue for Anodizing (Small) would be 1.9% to 2.6% for both the low and high cost scenarios.

In the category of Decorative (Medium) facility, Dun & Bradstreet underreported the employee count by 1300% when compared to inspector data. Closer review of the Dun & Bradstreet employee data used in the facility-based impact analysis indicates that facility revenues may be underreported. Comparison revealed large discrepancies between the Dun & Bradstreet employee count data and data gathered from SCAQMD inspector reports. SCAQMD inspectors visit Rule 1469 facilities quarterly and include the number of employees based on interviews with the owner or operator of the facility. Combining Dun & Bradstreet revenue data along with SCAQMD employee data for this facility, results in an average revenue per employee of just $2,864 annually. Typically, based on US Census Bureau data, one would expect to see revenue per employee 50 times that amount for the Electroplating, Plating, Polishing, Anodizing, and Coloring Industry (NAICS 332813). As a result of revenue underreporting, this facility has a cost-to-revenue ratio of 41.7% to 64.4% for the low and high cost scenarios. If this outliner is removed from the facility-based impact

analysis results, the revised annual average cost impact for Decorative (Medium) would be 2.2 to 3.4%.

In the category of Decorative (Small) facility Dun & Bradstreet underreports a facility's employee count by 1300%. Using SCAQMD's employee count data results in an updated average revenue per employee of $9,882. This facility has a cost-to-revenue ratio of 9.4% to 20.6%. Staff believes the underreporting of employee data points toward Dun & Bradstreet potentially underreporting revenue data thus resulting in severely exaggerated cost impacts for those facilities.

In the Decorative (Small) facility, there are 12 stripping and electropolishing tanks. As previously discussed, in the RDSIA it is assumed that these tanks are Tier III Tanks and will install air pollution control devices. A more reasonable assumption is that facilities will take a lower cost option and either maintain a tank bath with a hexavalent chromium concentration below 1,000 ppm as demonstrated with other facilities (Table 1-9 of the Staff Report) or use a chemical stripping tank. This would reduce the annual average cost to about $5,000 per facility. The revised annual average cost for Decorative (Small) facilities would be 1.5% to 5.7%. The 5.7% cost-to-revenue reflects installation of add-on pollution controls if chemical fume suppressants are not certified. As previously discussed in the Staff Report, the SCAQMD staff is committed to seek funding and low cost alternatives if chemical fume suppressants are not certified.

In the category of Anodizing (Medium) there is one facility that meets small business definition. Staff believes that the revenue for this facility is likely underreported, leading to a cost-to-revenue ratio of 5.4% to 8.8% for the low and high cost scenarios. An indicator that the revenue reported for this facility may be underreported is the comparison to other Anodizing (Medium) facilities. In the category of Anodizing (Medium) there are sixteen facilities representing an average revenue of $24,000,000. This facility's revenue compared to the other Anodizing (Medium) facilities represents 4.6%. It is important to note that this outlier facility is the only facility in the anodizing medium category and contributes significantly to the inflated average cost impacts reported in the facility-based impact analysis. Table A-2 includes a column with revised average cost impacts for the 64 facilities with less than $5,000,000 in annual revenue.

Table A-2
Summary of Average Cost Impacts including Revised Cost Impact Estimates for 64 Facilities That Meet Small Business Definition (less than $5,000,000 in annual revenue and fewer than 100 employees)

Category	Average Facility Annual Cost (Low Cost Scenario - High Cost scenario)	Range of Facility Annual Cost (Min - Max)	Average Cost Impacts (Low Cost scenario - High Cost Scenario)	Revised Average Cost Impacts (Low Cost scenario - High Cost Scenario)
Anodizing (Medium)	$55,000 - $90,000	$59,094 - $97,154	5.4% - 8.8%	-[a]
Anodizing (Small)	$44,000 - $65,000	$43,854 - $65,531	5.6% - 8.4%	2.1% - 3.2% [b]
Decorative (Large)	$3,000 - $3,000	$3,181 - $3,245	2.0% - 2.0%	2.0% - 2.0%
Decorative (Medium)	$16,000 - $24,000	$15,514 - $23,970	7.1% - 11.0%	2.2% - 3.4%[c]
Decorative (Other)	$3,000 - $3,000	$3,038 - $3,108	3.0% - 3.0%	3.0% - 3.1%
Decorative (Small)	$12,000 - $26,000	$12,118 - $26, 482	3.8% - 8.3%	1.5% - 5.7%[d]
Hard (Large)	$22,000 - $30,000	$21,542 - $29,642	2.3% - 3.1%	2.3% - 3.1%
Hard (Medium)	$7,000 - $7,000	$6,201 - $6,253	1.3% - 1.3 %	1.3% - 1.3%
Hard (Small)	$2,000 - $4,000	$1,102 - $4,109	0.2% - 0.3%	0.2% - 0.3%
Trivalent Other	$0 - $0	$226 - $226	0.0% - 0.0%	0.0% - 0.0%
Total	**$22,000 - $36,000**	**$226 - $97,154**	**3.4% - 6.0%**	**1.7% - 3.7%**

[a] Revenue reported was 4.6% below average for all Anodizing (Medium) facilities. Only facility in category.

[b] Assumes facility with stripping tank will choose a lower cost option to maintain tank below 1,000 PPM or use a chemical stripper instead of installing an add-on air pollution control device.

[c] Removed outlier facility whose reported employees was 1300% below information provided and observed by SCAQMD inspector.

[d] Assumes 12 facilities with stripping and electropolishing tanks will choose a lower cost option to maintain tank below 1,000 PPM or use a chemical stripper instead of installing an add-on air pollution control device.

The MFASC attempted to account for compliance cost variability across facilities by using a binomial expansion to calculate the probability that a given number of Tier III Tanks are located at an individual facility. This analysis is based on data provided to the MFASC consultants by the SCAQMD regarding the number of facilities with Tier III Tanks and the total number of Tier III Tanks for each facility category. Ultimately, the MFASC used these probability calculations to estimate the number facilities with compliance costs exceeding the 3% and 5% cost to revenue thresholds. The analysis relies on a coarse approximation of the cost calculations used the SCAQMD's analysis. This approximation assumes a simple linear relationship between annual compliance costs and the number of Tier III Tanks at a facility, plus a fixed cost.

Staff believes the analysis presented also overstates the percentage of facilities in the Hard (Large) category with cost impacts greater than 3% of

revenues. Neglecting to condition the probability calculations on the assumption that 9 of 18 facilities do not contain Tier III Tanks leads to overestimating the number of facilities exceeding the 3% cost threshold by approximately 20% in the high cost scenario. In addition, the commenters report 'preliminary' analysis for the Decorative (Small) category. No data or assumptions accompany the commenter's findings, but if we apply the same cost function approximation used in the Hard (Large) analysis, along with a total of 8 Tier III Tanks across 27 facilities in the Decorative (Small) category, and a 5% closure threshold, staff finds that the MFASC overestimates the number of closures by 255% at minimum.

31-9 Response: Please see Responses to Comments 31-1, 31-7 and 31-8 for a discussion of the impacts on small businesses.

The resolution includes a provision to seek financial assistance to assist facilities in installation of pollution controls or use of non-toxic alternatives, if non-PFOS chemical fume suppressants are not re-certified, and to identify a low-cost compliance option that is as equally effective as chemical fume suppressants. The MFASC's suggestion of a Board Resolution seeking financial assistance irrespective of whether non-PFOS fume suppressants are recertified was not incorporated.

In addition, staff believes there may be difficulty administering a financial assistance program where costs and revenue cannot be accurately verified. A provision that would allow a facility access to financial assistance based of their capital cost estimates may be difficult to ensure the facility is not overestimating actual costs. Some facilities have indicated that they intend to install more than what is directly required by PAR 1469.

ATTACHMENT H

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Socioeconomic Impact Assessment for Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

September 2018

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GOVERNING BOARD

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EXECUTIVE SUMMARY

A socioeconomic analysis was conducted to assess the potential impacts of Proposed Amended Rule (PAR) 1469 on the four-county region of Los Angeles, Orange, Riverside and San Bernardino. A summary of the analysis and findings is presented below.

Elements of Proposed Amendments	The purpose of PAR 1469 is to protect public health by minimizing public exposure to hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 would require: 1) installation of air pollution control equipment on hexavalent chromium containing tanks that emit or have the potential to emit hexavalent chromium that are currently not regulated; 2) periodic source testing and parametric monitoring of air pollution control equipment; 3) building enclosures with openings that do not exceed three and a half percent of the building envelope; 4) conditional requirements for installation of ~~a~~ Permanent Total Enclosures (PTE); 5) implementation of Best Management Practices (BMP) for all hexavalent chromium containing operations; 6) prohibiting the use of chemical fume suppressants that contain PFOS; and 7) re-certification of non-PFOS chemical fume suppressants due to potential toxicity concerns via an enhanced certification process conducted by SCAQMD and the California Air Resources Board (CARB).
Affected Facilities and Industries	SCAQMD staff has identified 115 facilities that either conduct decorative or hard chromium electroplating or chromic acid anodizing operations within SCAQMD's jurisdiction. 80 of the 115 affected facilities are located in Los Angeles County, 30 in Orange County, one in Riverside, and the remaining four in San Bernardino County. The majority of the potentially affected industries are in the manufacturing sector (NAICS 332), consistent with electroplating, plating, polishing, anodizing, and coloring facilities. This universe of facilities and tanks ~~were obtained~~ was determined via SCAQMD's recent surveys and equipment permitting database. Of the 115 affected facilities: • 47 facilities conduct decorative hexavalent chromium plating, • 31 facilities conduct hard hexavalent chromium plating, • 30 facilities conduct chromic acid anodizing, • four facilities conduct trivalent chromium plating only, • and three facilities conduct both chromic acid anodizing and hard hexavalent chromium plating. Data on employment and revenue were available for 104 of the 115 affected facilities. Based on this data, the total annual revenue for affected facilities is nearly $1 billion dollars and the total number of employees directly employed by affected facilities ~~is~~ was approximately 5,300 in 2017.

Assumptions of Analysis	Many of the costs estimated in this analysis are dependent on site-specific factors and on business decisions made by facilities subject to PAR 1469. Each facility will decide how to best to comply with the rule requirements and each facility will likely use a lower-cost option, if available. For this reason, two cost scenarios are provided in this analysis. A high cost scenario, which represents the highest expected cost of compliance with the requirements of PAR 1469, and a low cost scenario, which represents the costs associated with a more likely scenario. Based on the type of operations performed by the each facility, 13 categories were established based on the types of facilities (hard chromium plating, decorative chromium plating, chromic acid anodizing, multiple types of plating or anodizing, and trivalent) and size of the facility (small, medium, large, and other where ampere-hours could not be confirmed). **High Cost Scenario** The main requirements of PAR 1469 that have major cost impacts include the installation, operation, and maintenance of Air Pollution Control (APC) systems using High Efficiency Particulate Arrestor (HEPA) filters (point-source controls on existing and new tanks), initial source tests and screening tests, implementation of Best Management Practices, construction of Permanent Total Enclosures, and building modifications. Under the high cost scenario, it is assumed that a total of 103 Tier III Tanks located at 55 facilities will require APC systems, with one APC system assumed for each tank. PAR 1469 includes a provision that will require facilities to install air pollution controls, if chemical fume suppressants cannot be ~~re~~certified. As a result, in addition to the new APC systems for Tier III Tanks, the high cost scenario also includes cost estimates for adding APC systems for existing tanks where the only control technique that ~~are~~ is currently used are chemical fume suppressants. Beyond the 103 Tier III Tank facilities identified, there are 27 facilities with chromium electroplating and/or anodizing tanks that use chemical fume suppressants as their only form of control. Out of the 27 facilities using chemical fume suppressant controlled tanks, 12 facilities have both electroplating/anodizing tanks and Tier III Tanks. The remaining 15 facilities only have electroplating/anodizing tanks and represent some of the smallest facilities (based on revenue) in the PAR 1469 universe. Under the high cost scenario, it is assumed that a total of 130 (103+27) Tier III Tanks located at 70 facilities will require APC systems for each tank (130 total). This includes 55 facilities with existing Tier III Tanks plus 15 facilities with chemical fume suppressant controlled tanks that would require APC systems if no certified chemical fume suppressants are available by 2021.

Low Cost Scenario

Under the low cost scenario, it is assumed that a total of 103 tanks located at 55 facilities will require APC systems. Under this scenario it is assumed that a certified chemical fume suppressant will be available by July 1, 2021, and that the 27 facilities currently using chemical fume suppressants as their only form of control will be able to continue using a certified chemical fume suppressant rather than install~~ing~~ APC systems. In addition, the low cost scenario assumes that where possible, facilities with higher ventilation needs ~~will~~ would be able to vent more than one Tier III Tank into a single APC system and as a result, only 64 APC systems would be installed at 55 facilities. Below is a table summarizing the assumptions used in the high and low cost scenarios.

High Cost Scenario		**Low Cost Scenario**	
# of Facilities	70	# of Facilities	55
# of Tier III Tanks	130	# of Tier III Tanks	103
# of APCs	130	# of APCs	64

To estimate capital costs of APC systems, several quotes obtained from vendors indicate that unit costs ($/cfm) decrease as APC systems increase in size. Unit costs used in this analysis are shown below:

System Size (cfm)	**Unit Cost**
Up to 5,000	$23/cfm
5,001 to 10,000	$17/cfm
10,001 to 20,000	$14/cfm

It is anticipated that facilities would combine tanks to utilize a larger APC system instead of installing multiple APC systems, resulting in a lower overall cost.

Compliance Costs

The total average (2019 to 2035) annual compliance cost for PAR 1469 affected facilities was estimated to range from $2.64 million (low cost scenario) to $4.30 million (high cost scenario) per year, depending on the real interest rate assumed (1%-4%).

The majority of the PAR 1469 compliance costs are capital, installation, and operating and maintenance (O&M) costs of APC systems. The annualized costs are estimated at $1.97 million (75%) for the low cost scenario, and $3.33 million (77%) for high cost scenario, respectively. Initial source tests and recurring screening tests are the next largest cost categories with about $0.42 million (16%) for the low cost scenario and $0.61 million (14%) for the high cost scenario, annually.

Annualized Compliance Costs (Capital Cost, Installation, O&M), All Facilities Combined		
	High Cost Scenario	**Low Cost Scenario**
New APC for Existing Tier III Tank	$738,000	$463,000
New APC for Existing Electrolytic Tank Controlled by CFS	$209,000	$0
Operating & Maintenance	$2,010,000	$1,168,000
Electrical Costs of Operating APC	$368,000	$338,000
Annualized Total	**$3,325,000**	**$1,969,000**

The total cost of installing the APC systems are estimated at $6.5 to $11.3 million, for low cost and high cost scenarios, respectively. The total average annual cost of installing the APCs are estimated at $0.46 to $0.97 million over 15 years, depending on the real interest rate assumed (1% for the low cost scenario) and (4% for the high cost scenario), respectively.

The current cost of a conventional source test consisting of three individual collection runs is estimated at $20,000. An emissions screening test, which is required every five to seven years consists of a single collection run and is estimated to cost $14,000.

It was assumed that only two facilities may trigger the requirement for installation of a Permanent Total Enclosure. The estimated total cost of the two Permanent Total Enclosures is $184,000 for the low cost scenario, and $340,000 for the high cost scenario. The low cost scenario assumes 6 air changes per hour, while the high cost scenario assumes 15 air changes per hour. Costs vary by ventilation blower specifications and electrical operating costs.

The majority of the annual compliance costs (<u>$1.55 million or 58% for the low cost scenario, and</u> $2.49 million or 58% <u>for the high cost scenario</u>) is estimated to be incurred by affected facilities that belong to categories of Anodizing (Small), Anodizing (Medium), and Anodizing (Other). The majority of the annual compliance costs ($2.22 million or 84% for low cost scenario and $3.63 million or 84% for the high cost scenario) is estimated to be incurred by the sector of fabricated metal manufacturing where most of the electroplating, plating, polishing, anodizing, and coloring facilities belong.

Facility-Based Impact Analysis	A facility-based impact analysis was conducted at the request of stakeholders and is consistent with recommendations for assessment of small business impacts in a 2017 report prepared for the SCAQMD by Industrial Economics, Incorporated, "Models, Methods, and Data for Estimating Small Scale and Small Business Impacts." This analysis estimates the annual cost at a facility level scale and includes sales data for individual facilities. The average cost estimates for affected facilities range from $22,000 to $36,000. Revenue data indicates an average annual revenue for all affected facilities of $9.3 million, with a range of $40,000 to $168 million. The analysis indicates an average cost impact of 1.8% to 3.3% of revenue for all affected facilities. The facility category which bears the greatest impact is small decorative plating facilities, or Decorative (Small), which has a range of average impacts of 3.4% to 7.4% of revenue. Many of these facilities would be impacted by PAR 1469 if chemical fume suppressants are not certified and are required to install add-on pollution controls. Staff has added a provision that the Executive Officer in consultation with CARB may ~~certify~~ approve an alternative to a wetting agent chemical fume suppressant that is as equally effective as a certified chemical fume suppressant pursuant to paragraph (l)(2) of PAR 1469. This approach will allow facilities to use an alternative to a wetting agent chemical fume suppressant if emissions testing conducted by SCAQMD demonstrates that the alternative is as equally effective as a certified wetting agent chemical fume suppressant. The alternative to a wetting agent chemical fume suppressant would be available to only the smallest plating facilities that are currently allowed to use chemical fume suppressants. This approach will provide a cost savings given that SCAQMD staff will conduct the necessary emissions testing. No further emissions testing would be required if the operator complies with the conditions of the ~~certification~~ approval of the alternative. Recognizing the potential financial impact to smaller facilities, the adoption resolution for PAR 1469 will include a commitment that staff will seek funding to help offset the cost of add-on pollution controls if non-PFOS chemical fume suppressants cannot be certified.
Jobs and Other Socioeconomic Impacts	PAR 1469 is expected to result in approximately 37 to 63 to jobs forgone annually, on average, between 2019 and 2035 using the low and high cost scenarios are assumed, respectively. The projected jobs loss impacts represent about 0.001% of the total employment in the four-county region. The manufacturing sector (NAICS 31-33), which is projected to bear all estimated total compliance costs would have about 2 to 12 jobs forgone on average annually. The remainder of the projected reduction in employment would be across all major sectors of the economy from secondary and induced impacts of PAR 1469.

Competitiveness	It is projected that the manufacturing sector, where most of the affected facilities belong, would experience a rise in its relative cost of services by 0.0013% and 0.0022% and a rise in its delivered price by 0.0008% and 0.0012% by 2025 for the low and high cost scenarios, respectively. While these changes are relatively small, it should be noted that the delivered price change is a change in the index of all prices in the manufacturing sector. Delivered prices that a facility may charge for specific goods or services may increase at a greater rate than this, allowing incurred costs to be passed onto downstream industries and end-users.

INTRODUCTION

The proposed amendments to Rule 1469 are designed to reduce emissions from point sources that were previously not known to be significant sources of hexavalent chromium and establish additional provisions to minimize the release of fugitive hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations.

In an effort to minimize the public's exposure to hexavalent chromium, PAR 1469 would require: 1) air pollution control equipment to be installed on hexavalent chromium-containing tanks that emit or have the potential to emit hexavalent chromium; 2) conducting periodic source testing and parametric monitoring of air pollution control equipment; 3) building enclosures to meet a limit of 3.5% openings of the building envelope, which includes the area of the walls of the enclosure, the floor and the horizontal projection of the roof; 4) triggered requirements for PTE; 5) implementing BMPs for all hexavalent chromium containing operations; 6) prohibiting the use of chemical fume suppressants that contain PFOS; and 7) ~~re-~~certification of non-PFOS chemical fume suppressants via an enhanced certification process conducted by SCAQMD and the CARB due to potential toxicity concerns.

LEGISLATIVE MANDATES

The socioeconomic assessments at SCAQMD have evolved over time to reflect the benefits and costs of regulations. The legal mandates directly related to the assessment of the PAR 1469 include the SCAQMD Governing Board resolutions and sections of the California Health & Safety Code (H&SC) ~~are legal mandates that directly relate to the assessment of PAR 1469~~.

SCAQMD Governing Board Resolutions

On March 17, 1989 the SCAQMD Governing Board adopted a resolution that calls for an economic analysis of regulatory impacts that includes the following elements:

- Affected industries;
- Range of probable costs;
- Cost effectiveness of control alternatives; and
- Public health benefits

Health & Safety Code Requirements

The state legislature adopted legislation that reinforces and expands on the Governing Board resolutions for socioeconomic impact assessments. H&SC Section 40440.8(a) requires that a socioeconomic analysis be prepared for any proposed rule or rule amendment that "will significantly affect air quality or emissions limitations." Per H&SC Section 40440.8(b), the scope of the analysis should include:

- Type of affected industries;
- Impact on employment and the economy of the four-county region;

- Range of probable costs, including those to industries;
- ~~Emission reduction potential;~~
- Necessity of adopting, amending or repealing the rule in order to attain state and federal ambient air quality standards; and
- Availability and cost effectiveness of alternatives to the rule

Additionally, SCAQMD is required to actively consider the socioeconomic impacts of regulations and make a good faith effort to minimize adverse socioeconomic impacts. H&SC Section 40728.5, requires SCAQMD to:

- Examine the type of industries affected, including small businesses; and
- Consider socioeconomic impacts in rule adoption

Finally, H&SC Section 40920.6 requires that incremental cost effectiveness calculation be performed for a proposed rule or rule amendment that imposes Best Available Retrofit Control Technology or "all feasible measures" requirements relating to ozone, carbon monoxide (CO), oxides of sulfur (SOx), oxides of nitrogen (NOx), and their precursors. This statute does not apply to PAR 1469; moreover, cost effectiveness in terms of dollars per ton is not meaningful for air toxic regulations, since many other factors besides the amount of pollution affect the health risk such as the potency of an air toxic and the location of receptors.

AFFECTED INDUSTRIES

PAR 1469 will affect chromium electroplating and chromic acid anodizing facilities. Based on SCAQMD permitted data, internet searches, and lists of potential Rule 1469 facilities provided by industry representatives, SCAQMD staff called facility operators inquiring about their operations. SCAQMD staff visited some affected facilities if there was sufficient information indicating the facility could potentially be subject to proposed amendments of Rule 1469.

SCAQMD staff identified 115 facilities that either conduct decorative or hard chromium electroplating or chromic acid anodizing operations within SCAQMD's jurisdiction. 80 of the 115 affected facilities are located in Los Angeles County, 30 in Orange County, one in Riverside, and the remaining four in San Bernardino County.

Of the 115 affected facilities, 47 facilities conduct decorative hexavalent chromium plating, 31 facilities conduct hard hexavalent chromium plating, and 30 facilities conduct chromic acid anodizing. Four facilities conduct trivalent chromium plating only, and three facilities conduct both chromic acid anodizing and hard hexavalent chromium plating.

The majority of the potentially affected industries are in the manufacturing sector (NAICS 332), where most of the electroplating, plating, polishing, anodizing, and coloring facilities belong. Table 1 lists the type of manufacturing at affected facilities, and for each type, the facilities' industry classification, and the number of such facilities.

Table 1:
Potentially Affected Facilities by Industry

Industry	NAICS	Number of Facilities
Fabricated Metal Manufacturing	**332**	**93**
Metal Crown, Closure, and Other Metal Stamping (except Automotive)	332119	1
Saw Blade and Handtool Manufacturing	332216	1
Machine Shops	332710	3
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	332722	2
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	332812	2
Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	82
Plumbing Fixture Fitting and Trim Manufacturing	332913	2
Other Manufacturing	**333-337**	**12**
Other Industrial Machinery Manufacturing	333249	1
Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	333514	1
Cutting Tool and Machine Tool Accessory Manufacturing	333515	1
Other Measuring and Controlling Device Manufacturing	334519	2
Motor and Generator Manufacturing	335312	1
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	336310	1
Other Motor Vehicle Parts Manufacturing	336390	1
Aircraft Manufacturing	336411	1
Other Aircraft Parts and Auxiliary Equipment Manufacturing	336413	2
Showcase, Partition, Shelving, and Locker Manufacturing	337215	1
Wholesale and Retail Trade	**42, 44**	**2**
Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	423860	1
Motorcycle, ATV, and All Other Motor Vehicle Dealers	441228	1
Professional, Scientific, and Technical and Other Services	**54, 56**	**5**
All Other Professional, Scientific, and Technical Services	541990	1
All Other Support Services	561990	4
Repair and Maintenance	**811**	**3**
Automotive Body, Paint, and Interior Repair and Maintenance	811121	1
Other Electronic and Precision Equipment Repair and Maintenance	811219	1
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	1
Total		**115**

Small Businesses

SCAQMD defines a "small business" in Rule 102, for purposes of fees, as one which employs 10 or fewer persons and which earns less than $500,000 in gross annual receipts. SCAQMD also defines "small business" for the purpose of qualifying for access to services from SCAQMD's Small Business Assistance Office as a business with an annual receipt of $5 million or less, or with 100 or fewer employees. In addition to SCAQMD's definition of a small business, the federal Clean Air Act Amendments (CAAA) of 1990 and the federal Small Business Administration (SBA) also provide definitions of a small business.

The ~~CAAA~~ California Health and Safety Code § 42323 classifies a business as a "small business stationary source" if it: (1) is owned or operated by a person who employs 100 or fewer individuals. (2) is a small business as defined under the federal Small Business Act (15 U.S.C. Sec. 631, et seq.). (3) emits less than 10 tons per year of any single pollutant and less than 20 tons per year of all pollutants. ~~employs 100 or fewer employees, (2) does not emit more than 50 tons per year of , and (3) is a small business as defined by SBA~~. The SBA definitions of small businesses vary by six-digit North American Industrial Classification System (NAICS) codes. In general terms, a small business must have no more than 500 employees for most manufacturing industries, and no more than $7 million in average annual receipts for most nonmanufacturing industries.[1] A business in the industry of electroplating, plating, polishing, anodizing, and coloring (NAICS 322813) with fewer than 500 employees is considered a small business by SBA.

Out of the 115 affected facilities within SCAQMD's jurisdiction, information on sales and employees for 104 facilities were available, based on 2017 Dun and Bradstreet data.[2] Under SCAQMD's definition of small business, there are 25 small businesses affected by PAR 1469. Using the SBA definition of small business for the manufacturing sector, all of the 104 facilities are considered small businesses. Under the CAAA definition of small business, all of the 104 facilities are considered small businesses assuming that all the facilities without annual emission data emit less than 10 tons of VOC or NOx.

COMPLIANCE COSTS

For facilities subject to PAR 1469, incremental costs were estimated for the capital outlays and related expenditures—including operations and maintenance (O&M), building enclosures with openings that do not exceed three and a half percent ~~openings~~ of the building enclosure envelope, permanent total enclosures, initial source tests for new APC systems as well as source tests for existing APC systems and screening tests for existing electrolytic tanks, incremental costs of permit application fees, and implementation of BMPs. The capital outlays would include APC systems fitted with HEPA filters.

All the costs discussed in this section are expressed in 2017 dollars. For the purpose of projecting future compliance costs, it is assumed that these costs would remain the same in the foreseeable future, with any increase being a result of inflation. Additionally, while it is considered in this analysis that all estimated costs would be borne by the affected facilities, the compliance costs could potentially be passed on to downstream customers of electroplating and anodizing services and products.

Staff has used the following sources to estimate costs of capital, installation, operating and maintenance of APC systems, source tests, screening tests, and BMPs:

1. Vendor quotes obtained by SCAQMD staff;
2. Vendor quotes obtained by Environomics, a consultant hired by the Metal Finishing Association of Southern California (MFASC);

[1] The latest SBA definition of small businesses by industry can be found at http://www.sba.gov/content/table-small-business-size-standards.
[2] Dun & Bradstreet Enterprise Database, 2017.

3. Actual costs from a recent APC system installation;
4. Plating/anodizing facility personnel discussions with vendors or engineers;
5. Cost estimates from the 2006 amendment to the CARB Airborne Toxic Control Measures (ACTM) for chromium electroplating. https://www.arb.ca.gov/toxics/atcm/chroatcm.pdf; and
6. Vendor quotes from consultants of Montrose Environmental Group, Inc. http://montrose-env.com/

Many of the costs estimated in this analysis are highly dependent on site-specific factors and on business decisions made by facilities subject to PAR 1469. For example, many facilities have more than one tank ~~required to~~ be controlled under the proposed ~~requirements~~ amendments. It is more cost effective to control multiple tanks using one APC system, due to reduced equipment (i.e. ductwork, blower, filter housing, etc.) as well as reduced installation, permitting, and source testing costs. However, it is often not possible to control more than one tank with an APC system because tanks ~~required to~~ that must be controlled are located in different buildings or located too far apart to use one APC system. Each facility will decide how to best to comply with the proposed requirements and an assumption is that each facility will likely use the lowest-cost option.

For this reason, two cost scenarios are provided in this analysis. A high cost scenario, which represents the highest expected cost of compliance with the requirements of PAR 1469, and a low cost scenario, which represents the costs associated with a more reasonable scenario.

It is important to note that when conducting this cost analysis, every effort was made to represent costs as realistically as possible, given that many factors would ultimately dictate what price a business will pay to ensure compliance with PAR 1469 requirements.[3] The estimated cost for each line item was either represented by an industry average or a reasonable range, based on the information and data available. The procedure and assumptions for each cost scenario are discussed below. The total cost includes overall costs over 15 years for the low and high cost scenarios. The average annual compliance cost is estimated over the years 2019-2035. The average annual compliance cost of PAR 1469 is estimated to range from $2.64 million (low cost scenario) to $4.30 million (high cost scenario) per year, depending on the real interest rate assumed (1%-4%).[4] Table 2 presents total and average annual compliance costs of PAR 1469 by requirement categories.

As presented in Table 2, the main requirements of PAR 1469 that have cost impacts for affected facilities would include installation of APC systems, O&M costs of APC systems, source test and

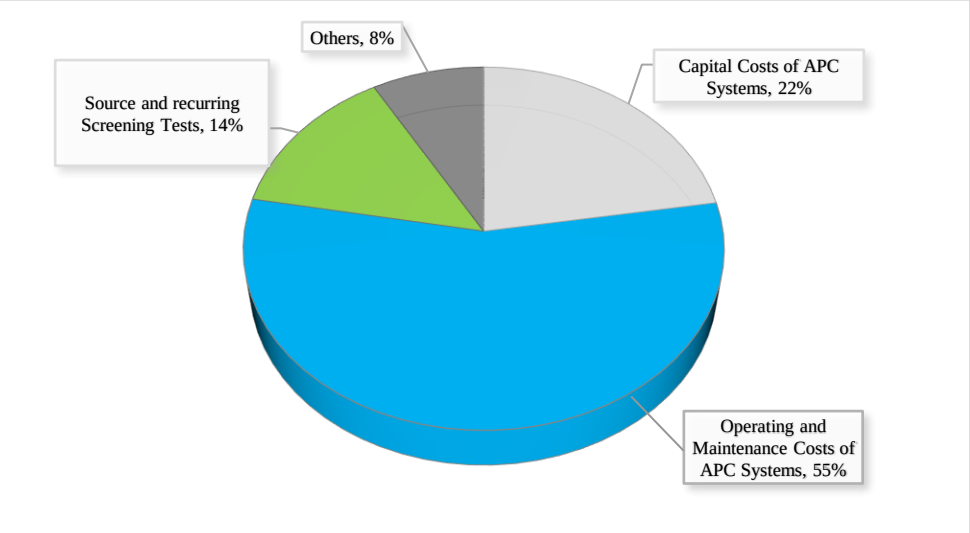
[3] SCAQMD staff worked with Metal Finishing Association of Southern California (MFASC) consultants to develop cost assumptions for PAR 1469.

[4] In 1987, SCAQMD staff began to calculate cost-effectiveness of control measures and rules using the Discounted Cash Flow method with a discount rate of 4%. Although not formally documented, the discount rate is based on the 1987 real interest rate on 10-year Treasury Notes and Bonds, which was 3.8%. The maturity of 10 years was chosen because a typical control equipment life is 10 years; however, a longer equipment life would not have corresponded to a much higher rate- the 1987 real interest rate on 30-year Treasury Notes and Bonds was 4.4%. Since 1987, the 4% discount rate has been used by SCAQMD staff for all cost-effectiveness calculations, including BACT analysis, for the purpose of consistency. The incremental cost reported in this assessment was thus annualized using a real interest rate of four percent as the discount rate. As a sensitivity test, a real interest rate of one percent will also be used, which is closer to the prevailing real interest rate.

screening test costs, installation of PTEs and upgrading building enclosures, and implementing BMPs.

The majority of PAR 1469 compliance costs are capital, installation, and O&M costs of APC systems. The annualized compliance costs are estimated at $1.97 million (75% of total costs) for low cost scenario, and $3.33 million (77%) for high cost scenario, respectively. Initial source tests and recurring screening tests are the next largest cost categories with about $0.42 million (16%) for the low cost scenario and $0.61 million (14%) for the high cost scenario, annually.

Figure 1:
Annual Estimated Costs by Requirement (High Cost Scenario)



The cost impacts for affected facilities from PAR 1469 compliance are from one-time costs and annual recurring costs. The one-time costs would include capital and installation of APC systems, initial source costs, permanent total enclosures, building modifications, permit application fees, and BMPs. Annual recurring cost estimates include costs of APC systems, annual costs of electrical power to run new ventilation blowers, annual monitoring costs, annual permit renewal fees, and costs of periodic source tests.

Table 2:
Projected Total and Average Annual Compliance Cost of PAR 1469 by Requirement Categories

	Total Cost Low Cost Scenario (From 2019 to 2035)	Total Cost High Cost Scenario (From 2019 to 2035)	Annual Cost at 1% Real Interest Rate (Low Cost Scenario)	Annual Cost at 4% Real Interest Rate (High Cost Scenario)
One-Time Costs				
Implementing BMPs**	$654,000	$654,000	$68,000	$76,000
Building Modifications*	$164,000	$272,000	$11,000	$18,000
Capital Cost of New APC Systems for Existing Tier III Tanks*	$6,539,000	$8,584,000	$463,000	$738,000
Capital Cost for New APC Systems for Existing Electrolytic Tanks Controlled by Chemical Fume Suppressants*	$0	$2,744,000	$0	$209,000
Cost of Permanent Total Enclosure*	$184,000	$340,000	$11,000	$24,000
Initial Source Testing for New APC Systems for existing Tier III Tanks*	$1,270,000	$1,937,000	$74,000	$114,000
Initial Source Testing for New APC Systems for Existing Electrolytic Tanks controlled by Chemical Fume Suppressant*	$0	$540,000	$0	$32,000
Initial Source Testing for Existing APC Systems for Existing Electrolytic Tanks*	$1,396,000	$1,396,000	$82,000	$82,000
Permitting Costs for New APC Systems for Existing Tier III Tanks*	$280,000	$420,000	$20,000	$36,000
Permitting for New APC Systems Serving Existing Electrolytic Tanks controlled by chemical Fume suppressants*	$0	$118,000	$0	$8,000
Fluid Eductors**	$30,000	$42,000	$3,000	$5,000
Recurring Costs				
Screening Test (Recurring) Cost for Existing Electrolytic and Tier III Tanks	$2,286,000	$2,286,000	$147,000	$147,000
Screening Test (Recurring) Cost for Tier III Tanks	$1,901,000	$3,071,000	$121,000	$196,000
Screening Test (Recurring) Cost for New APC Systems for Electrolytic Tanks Controlled by Chemical Fume Suppressants	$0	$540,000	$0	$35,000
Annual Monitoring Costs	$180,000	$265,000	$338,000	$368,000
Operating and Maintenance Costs for APC Systems	$17,655,000	$30,680,000	$1,168,000	$2,010,000
Annual Operating (Electrical) Costs	$5,174,000	$6,092,000	$338,000	$368,000
Annual Permit Renewal Costs for Tier III Tanks	$1,904,000	$2,496,000	$118,000	$183,000
Total* **	**$39,617,000**	**$62,477,000**	**$2,636,000**	**$4,299,000**

*Cost is annualized over 15 years of expected equipment life
** Cost is annualized over 10 years of expected equipment life (Splash Guards, Barriers, Pressure Gauge)
***Total values may not add up due to rounding.

Based on the type of operations performed by each facility, 13 categories were established based on the types of facilities (hard chromium plating, decorative chromium plating, chromic acid anodizing, multiple, trivalent) as well as the size of the facility (small, medium, large, other based on permitted ampere-hours) ~~were established~~.

Table 3 presents the total and average annual costs of PAR 1469 by type of operation. The majority of the annual compliance costs ($2.49 million for high cost scenario, $1.55 million for low cost scenario, both approximately 58% of total costs across all facility categories) is estimated to be incurred by affected facilities that belong to categories of Anodizing (small), Anodizing (medium), and Anodizing (other). Facility categories denoted by "Other" refers to facilities with a permit still under review at the time of the socioeconomic impact assessment, and ampere-hours information was not available to define the size of the operation.

Table 3:
Projected Total and Average Annual Compliance Cost of PAR 1469 by Operation Category
(2017 Dollars)

Operation Category	Total Cost Low Cost Scenario	Total Cost High Cost Scenario	Annual Cost at 1% Real Interest Rate (Low Cost Scenario)	Annual Cost at 4% Real Interest Rate (High Cost Scenario)
Anodizing (Small)	$9,150,000.00	$13,427,000.00	$609,000.00	$924,000.00
Anodizing(Medium)	$12,381,000.00	$19,953,000.00	$824,000.00	$1,373,000.00
Anodizing (Other*)	$1,742,000.00	$2,824,000.00	$116,000.00	$194,000.00
Decorative (Small)	$4,908,000.00	$10,490,000.00	$326,000.00	$722,000.00
Decorative (Medium)	$2,549,000.00	$3,859,000.00	$170,000.00	$266,000.00
Decorative (Large)	$236,000.00	$236,000.00	$16,000.00	$16,000.00
Decorative (Other)	$181,000.00	$182,000.00	$12,000.00	$13,000.00
Hard (Small)	$186,000.00	$351,000.00	$12,000.00	$24,000.00
Hard (Medium)	$548,000.00	$567,000.00	$36,000.00	$39,000.00
Hard (Large)	$5,803,000.00	$7,830,000.00	$386,000.00	$539,000.00
Hard (Other)	$135,000.00	$135,000.00	$9,000.00	$9,000.00
Multiple (Large)	$1,782,000.00	$2,608,000.00	$119,000.00	$179,000.00
Trivalent (Other)	$14,000.00	$15,000.00	$1,000.00	$1,000.00
Total	**$39,617,000**	**$62,477,000**	**$2,636,000**	**$4,299,000**

*"Other" refers to facilities for which the permit was still under review and ampere-hours data was not yet available at the time of analysis.

Table 4 presents the compliance cost of PAR 1469 by industry types. The majority of the annual compliance costs ($2.22 million or 84% for low cost scenario and $3.63 million or 84% for the high cost scenario) of PAR 1469 is estimated to be incurred by the sector of fabricated metal manufacturing where most of the electroplating, plating, polishing, anodizing, and coloring facilities belong.

Table 4:
Projected Total and Average Annual Compliance Costs by Industry for Affected Facilities (2017 Dollars)

Industry that Typically Uses the Equipment	NAICS Codes	Number of Facilities	Projected Annual Compliance Costs			
			Total Cost Low Cost Scenario	Total Cost High Cost Scenario	Annual Cost Low Cost Scenario 1% Real Interest Rate	Annual Cost High Cost Scenario 4% Real Interest Rate
Wholesale trade	42	2	$869,000	$1,384,000	$58,000	$97,000
Professional, scientific, and technical services	54	1	$45,000	$45,000	$3,000	$3,000
Fabricated metal product manufacturing	332	92	$33,373,000	$52,724,000	$2,219,000	$3,631,000
Machinery manufacturing	333	3	$597,000	$915,000	$40,000	$63,000
Computer and electronic product manufacturing	334	2	$229,000	$480,000	$15,000	$30,000
Electrical equipment and appliance manufacturing	335	1	$40,000	$76,000	$2,000	$4,000
Furniture and related product manufacturing	337	1	$2,000	$2,000	$0	$0
Administrative and support services	561	4	$921,000	$1,347,000	$62,000	$87,000
Repair and maintenance	811	3	$597,000	$915,000	$40,000	$63,000
Motor vehicles, bodies and trailers, and parts manufacturing	3361-3363	2	$506,000	$823,000	$34,000	$57,000
Other transportation equipment manufacturing	3364-3369	3	$2,393,000	$3,720,000	$161,000	$262,000
Retail trade	44-45	1	$45,000	$45,000	$3,000	$3,000
Total		**115**	**$39,617,000**	**$62,477,000**	**$2,636,000**	**$4,299,000**

One-time Costs of PAR 1469 Compliance

- **Implementing BMPs**

High Cost Scenario:

- Drip trays between electroplating/anodizing tank and adjacent tanks
- Tank labeling on each electroplating, anodizing and Tier III tank
- Barriers – 1 barrier at 111 affected facilities (trivalent facilities are not subject to this requirement)
- Instrumentation for existing APC systems – 2 static pressure gauges, 1 magnahelic, and 1 hot-wire anemometer for each existing APC system
- Cost: $654,000

Low Cost Scenario:

- Assumptions and cost are same as in High Cost scenario
- Cost: $654,000

Installation of Drip Trays

PAR 1469 requires installation of drip trays between each electroplating or anodizing tank and adjacent tanks for facilities with automated lines. A cost of $200 per drip tray is assumed, in addition to 5 hours of labor (performed by plating shop personnel) to install these drip trays. According to the industry representative, labor costs are assumed to be at an hourly wage of $22 per hour, which represents the average labor rate at the affected facilities. The number of drip trays is assumed to be equivalent to the number of existing Tier III Tanks and electrolytic tanks at 111 facilities, distributed evenly among all facilities. This results in an estimated cost of $99,470 for installation of drip trays. This value is used for both the high and low cost scenario. Inclusion of this cost is a conservative assumption, as many facilities with automated lines currently have drip trays.

Installation of Labels on Tanks

PAR 1469 requires clear labeling of each tank~~s~~ within the tank process area with a tank number or other identifier, SCAQMD permit number, bath contents, maximum concentration (ppm) of hexavalent chromium, operating temperature range, and any agitation methods used. ~~However, a cost is included for this BMP in order to be conservative.~~ A cost of $25 per label ~~is assumed. Inclusion of this cost is a conservative assumption,~~ is conservatively assumed, though staff has observed in site surveys that most facilities already label tank information using handwritten or printed paper placards. Any missing label information could be added to the existing label or revised with the required information. The number of new and revised labels is assumed to be equivalent to the number of existing Tier I, Tier II, Tier III, and electrolytic tanks at 111 facilities, distributed evenly among all facilities. This results in an estimated cost of ~~$8,575~~ $10,550 for installation of labels on tanks. This value is used for both the high and low cost scenario.

Installation of Barrier between Buffing, Grinding or Polishing Area and Tank Area

PAR 1469 requires separation of the buffing, grinding, or polishing area within a facility from the chromium electroplating or chromic acid anodizing operation. The proposal allows the barrier to be plastic strip curtains. Therefore, staff assumes plastic strip curtains will be used ~~are assumed to facilities~~ to comply with this requirement, due to their relatively low cost. A capital cost of $1,000 plus an additional labor cost of 20 hours to install this barrier is assumed for each facility. The total estimated cost to comply with this BMP is $165,000. This value is used for both the high and low cost scenario. Inclusion of this cost scenario is a conservative assumption, as many facilities currently conduct buffing, grinding and polishing activities in a separate room from electroplating or anodizing activities.

Installation of Parameter Monitoring Instrumentation on existing APC Systems

PAR 1469 requires installation of instrumentation to monitor pressure and airflow on existing APC systems. This instrumentation includes a static pressure gauge installed on the push side of a push-pull manifold serving a Tier III or electrolytic tank, a static pressure gauge or volume flow meter installed in the collection manifold of an APC system, and a differential pressure gauge installed across each stage of control in an APC system. ~~An~~ For example, ~~of~~ the differential pressure monitoring locations required by the proposal include~~s~~ across the mesh pads, pre-filters, and the HEPA filters. In this instance, three differential pressure monitoring devices would be required per APC system. Costs assumed for this requirement include $200 for a static pressure gauge and $1,000 for a differential pressure gauge. Both costs include installation.

Instrumentation for parameter monitoring is included in the unit cost for new APC systems serving existing Tier III Tanks. Therefore, no additional costs are assumed for new APC systems installed either for Tier III Tanks or for APC systems installed in the event that no chemical fume suppressant is certified by July 2021. For existing tanks, most permits already include a requirement to monitor differential pressure either across each stage of control or over all stages of control collectively. Therefore, APC systems for existing tanks already have at least one differential pressure monitor currently installed. Staff does not believe many APC systems are currently equipped with a static pressure gauge either on the push side of a push-pull ventilation system or within the collection manifold. To be conservative, this estimate includes two static pressure monitors and two differential pressure monitors. The APC systems for existing electroplating and anodizing tanks ~~are required to install a~~ must have parameter monitoring instrumentation. The estimated cost of meeting this BMP requirement is estimated at $316,000. This value is used for both the high and low cost scenario.

The total one-time cost of the above BMPs is estimated at $654,000 for both low and high cost scenarios.

- **Building Modification Costs**

High Cost Scenario:

- Four openings per facility at 111 affected facilities
- 12 facilities modify existing openings to meet 3.5% enclosure envelope
- Construction based on ~~400~~ 1,000 ft^2 of open area
- Cost: $272,000

Low Cost Scenario:

- Four openings per facility at 111 affected facilities
- 12 facilities modify existing openings to meet 3.5% enclosure envelope
- Construction based on ~~1,000~~ 400 ft^2 of open area
- Cost: $164,000

PAR 1469 requires building enclosures that meet a limit of 3.5% enclosure openings as a percentage of the building envelope, which includes the area of the walls of the enclosure, the floor and the horizontal projection of the roof. Facilities with openings in excess of this limit have many options for compliance including enclosing openings by installing doors, windows and wall sections. Most facilities currently meet the proposed limit. In addition, PAR 1469 requires facilities to enclose all roof openings that are ~~located near an electrolytic tank or Tier III Tank. This includes openings~~ within 15 feet of Tier II or Tier III Tanks. It is estimated that a maximum of four openings per facility may need to be closed. Simple and cost-effective solutions are readily available to close these openings. An estimate of $200 per opening is used to calculate closure costs. Existing shop personnel are expected to conduct this work. The total cost for building enclosure modifications is estimated to be $92,000, inclusive of materials and labor.

~~Under~~ Pursuant to the Ongoing Compliance Status & Emissions Report in Appendix 3, the owner/operator ~~is required to~~ must identify enclosure openings that contribute to the 3.5% building allowance. The cost to close roof openings within 15 feet of a Tier II or Tier III Tank will reduce the percentage of openings as a function of the building envelope ~~and this cost is calculated under the cost scenario specific to 4 openings per facility requirement~~.

Staff has learned of two situations where a facility may construct in order to meet the 3.5% opening requirement. In a survey of nine facilities, one had large openings high up in the walls that need to be enclosed to meet the 3.5% allowance. In a second situation, a facility has a plating operation in the middle section of a very large building. The facility prefers to keep the doors at either end of the building open and instead would construct interior walls that enclose the plating operation to meet requirements. This solution may require the facility to ventilate the area that houses the plating operation. It can be argued that construction in the second example is not driven by PAR 1469 requirements but is instead a business decision. In the survey mentioned, one out of nine facilities will be required to construct building enclosure modifications as a direct result of PAR

1469 requirements. For this analysis, these limited survey results are conservatively extrapolated to the PAR 1469 universe of 111 facilities that conduct hexavalent chromium plating or anodizing, giving an estimate of 12 facilities that may be required to perform some kind of construction. ~~For the low cost scenario, it is assumed that these facilities will be required to enclose up to 400 square feet and up to 1,000 square feet for the high cost scenario.~~

It is not possible to predict ~~a solution for~~ how the facilities ~~that may need to enclose~~ will close existing openings. PAR 1469 allows a number of solutions such as permanently sealing existing openings with materials such as light-gauge steel or aluminum siding, closing doors and windows as allowed under the proposal (with two hours per day allowance for ingress and egress of equipment and personnel), installation of plastic strip curtains, or other materials on existing openings in lieu of closing doors and windows. Cost for these solutions are estimated as follows:

> Adding to a section of a wall, including the cost to add panels to a partial enclosure that creates a building enclosure thereby meeting 3.5% limit for openings as a percentage of building envelope: $44,000 for 100 feet section of wall 24 feet high. The wall is assumed to have a steel structure with a light gauge steel sheathing, one roll up door, and two entry doors. The unit cost of the wall was estimated at $18.33 per square feet.[5]
>
> Plastic strip curtains cost an average of $7 in the size ranges expected for building enclosure applications (eight feet by three feet for personnel access doors; 12 feet by 16 feet for equipment access doors. An additional 50% is added for installation costs, giving an estimated unit cost of $10.50 per square foot.[6]

Assuming half of building enclosures will be closed using solid wall surfaces and ~~50%~~ half will use plastic strip curtains results in an average cost of approximately $15 per square foot. For the low cost scenario, it is assumed that up to 400 square feet of surface area will be enclosed, for an estimate of $6000, and for the high cost scenario, it is assumed that 1,000 square feet of surface area will be enclosed, giving an estimated $15,000. For the 12 facilities estimated to be impacted by this requirement the total cost will range from $72,000 to $180,000.

[5] National Building Cost Manual 2008. Costs were updated to current dollars.

[6] Cost estimate based on price figures obtained from: https://www.grainger.com/category/strip-doors/strip-doors-replacement-strips-and-hardware/dock-equipment/material-handling/ecatalog/N-18lo?okey=plastic+strip+curtains&mkey=plastic+strip+curtains&refineSearchString=plastic+strip+curtains&NLSCM=14&EndecaKeyword=plastic+strip+curtains&searchBar=true&searchRedirect=plastic+strip+curtains&sst=subset

- **Capital Cost of New APC Systems for Existing Tier III Tanks**

High Cost Scenario:

- 103 new APC systems at 70 affected facilities
- One APC system per Tier III tank
- Cost: $8,584,000

Low Cost Scenario:

- 64 new APC systems at 55 affected facilities
- Multiple Tier III Tanks per APC system
- Cost: $6,539,000

PAR 1469 would require affected facilities to install APC systems on hexavalent chromium-containing tanks that emit or have the potential to emit hexavalent chromium from their Tier III Tanks. In addition, Tier III Tanks that are currently exempt under Rule 219 often do not have tank parameters (i.e. size, applied heat or air sparging, chromium concentration within the bath) described in their SCAQMD permits. As a result, staff does not have data on all Tier III tanks affected by PAR 1469. To better estimate the number of Tier III Tanks affected, staff administered two surveys requesting data from affected facilities; one administered by SCAQMD compliance staff (Phase I), and the other completed by the owner or operator of a facility (Phase II).

Phase I of the survey consisted of information regarding tanks, housekeeping procedures, best management practices, and existing control techniques. Of the 115 affected facilities that were contacted, a total of 62 responses were received. Phase II was conducted mainly to obtain information from additional facilities that could be affected by the amendments as well as financial data (annual sales and number of employees) of all affected sources subject to the PAR 1469.

25 of the 62 survey responses received included the size and composition of Tier III Tanks. Data from these responses were extrapolated to estimate the number and size of Tier III Tanks at facilities that did not submit a survey response. In order to establish these estimates, 13 facility categories were created, based on the type of operations performed by the facility (hard chromium plating, decorative chromium plating, chromic acid anodizing, multiple operations, and trivalent) as well as the size of the facility (small, medium, large, and other). Facility size designations were based on the number of ampere-hours allowed in a facility's permit. Small facilities are those permitted for less than 500,000 ampere-hours/year, medium facilities are those permitted for 500,001 to 10,000,000 ampere-hours/year, and large facilities are those permitted above 10,000,000 ampere-hours/year. Facilities designated as "Other" had a permit under review at the time of the analysis and ampere-hours could not be confirmed. These categories are shown below:

1. Chromic Acid Anodizing (Small)
2. Chromic Acid Anodizing (Medium)
3. Chromic Acid Anodizing (Other)
4. Decorative Chromium Plating (Small)
5. Decorative Chromium Plating (Medium)

6. Decorative Chromium Plating (Large)
7. Decorative Chromium Plating (Other)
8. Hard Chromium Plating (Small)
9. Hard Chromium Plating (Medium)
10. Hard Chromium Plating (Large)
11. Hard Chromium Plating (Other)
12. Multiple Plating or Anodizing Operations (Large)
13. Trivalent (Other)

It should be noted that facilities designated as small for the purpose of estimating costs do not necessarily qualify them as a small business under the small business definition.

Tank estimates and associated costs are based on the number of survey responses within each category as described above, scaled to the total number of facilities with Tier III Tanks within that category. Average costs were assigned to each facility as a percentage of the total costs within that category for a particular capital cost or activity.

High Cost Scenario for APC Systems

There are a total of 27 facilities with chromium electroplating and/or anodizing tanks that are currently controlled only by chemical fume suppressants. Out of these 27, 12 facilities have both electroplating/anodizing tanks and Tier III Tanks. The remaining 15 facilities only have electroplating/anodizing tanks and represent some of the smallest facilities (based on amp-hours) in the PAR 1469 universe. Under the high cost scenario, it is assumed that a total of 130 tanks (i.e. 103 Tier III Tanks and 27 tanks controlled by fume suppressants) located at 70 facilities (i.e. 55 facilities with existing Tier III Tanks and 15 facilities with fume suppressant controlled tanks) will require APC controls. Under this scenario, one APC system is assumed for each tank.

Under a high cost scenario, an additional 27 APC systems are assumed to be installed at 27 facilities if no certified chemical fume suppressants are available by July 2021. 12 of these facilities already have Tier III Tanks that also need APCs, and were previously counted ~~in the first group~~. The remaining 15 facilities do not have Tier III Tanks now and would need a new APC after 2022. The total APC system counts under the high cost scenario is therefore 130 (103+27) systems at 70 (55+15) facilities.

Low Cost Scenario for APC Systems

Under the low cost scenario, it is assumed that a total of 103 tanks located at 55 facilities will require APC controls. Under this scenario it is assumed that a certified chemical fume suppressant will be available by 2021, and that the 27 facilities currently using chemical fume suppressants as their only form of control will be able to use a certified chemical fume suppressant rather than installing APC systems. In addition, the low cost scenario assumes that where possible, facilities with higher ventilation needs will be able to vent more than one Tier III Tank into a single APC system and as a result, only 64 APC systems would be installed at 55 facilities. Table 5 presents the summary of the estimated number of Tier III Tanks and associated APC systems for both scenarios.

Table 5:
Affected Facilities and Tanks

High Cost Scenario		Low Cost Scenario	
# of Facilities	70	# of Facilities	55
# of Tier III Tanks	130	# of Tier III Tanks	103
# of APCs	130	# of APCs	64

SCAQMD staff used a number of sources to estimate capital and annual costs for new air pollution control systems, including estimates from the 2006 CARB chrome plating ATCM. These cost estimates were updated to 2017 dollars. Costs from recent quotes correlate very well with updated costs from the CARB ATCM. After review of the available cost data, the updated CARB ATCM costs represented the most conservative assumptions. All raw costs were converted to unit costs and are presented in dollars per cubic feet per minute (cfm) of APC system airflow. Three system sizes were estimated, including 5,000 cfm, 10,000 cfm and 20,000 cfm. It was assumed that 150 cfm of airflow is required to control each square foot of tank surface area. This assumption was used both for electroplating/anodizing tanks as well as for Tier III Tanks. The three system sizes of 5,000 cfm, 10,000 cfm and 20,000 cfm correspond to control of tanks with a surface area of approximately 33 square feet, 67 square feet, and 133 square feet, respectively.

All cost estimates are assumed to include the following:

1. Engineering and system design
2. Ventilation ductwork
3. Blower motor and housing
4. Control housing
5. Control media (i.e. mesh pads, pre-filters, HEPA filters, etc.)
6. Instrumentation required under PAR 1469, including:
    a. Static pressure gauge on push side of push/pull system;
    b. Static pressure gauge or volumetric flow meter at collection manifold; and
    c. Differential pressure gauge measuring pressure drop across each stage of control.
7. Installation
8. Required electrical upgrades
9. Sales tax
10. Set-up and commissioning

Quotes obtained from vendors indicate that unit costs decrease as APC systems increase in size. Unit costs used in this analysis are as follows:

System Size (cfm)	Unit Cost Estimate (per cfm)
Up to 5,000	$23
5,001 to 10,000	$17
10,001 to 20,000	$14

Unit cost estimates do not include source testing or permitting. However, the analysis provides separate line items for source testing and permitting. In addition, unit cost estimates do not include costs that the city or municipality may impose ~~relative to~~ for building inspections, approvals and

upgrades to meet local building codes for the facility. For example, a facility may need to meet the current building code or seismic requirements. However, no costs were assumed for items such as building inspections, approvals, and upgrades imposed by the city or municipality, due to the uncertain nature of these costs. Each city or municipality may have different requirements relative to installation of APC systems, and staff cannot reasonably predict these costs. Therefore, actual costs may be higher for facilities with older buildings that need to be brought up to current codes.

Staff assumed that most tanks will require an APC system sized to control emissions from that individual tank. The assumption of one APC system per tank was made after consultation with Environomics and after numerous SCAQMD staff visits to facilities subject to Rule 1469. This is a conservative assumption as staff believes there are many opportunities for a plating or anodizing facility to realize savings under one or more of the following scenarios:

1. Venting multiple tanks to a common APC system, where these tanks are located in proximity to each other;
2. Moving tanks that are not currently located in proximity with each other closer together and venting to a common APC system; or
3. Venting an existing tank required to be controlled under PAR 1469 into an existing APC system, where capacity of that system allows.

It should be noted that there is a financial incentive for combining multiple tanks into a common APC system, relative to installing a single APC system for each tank, in terms of reduced unit cost as well as reduced source testing, permitting, and annual permit renewal fee costs. Therefore, actual costs will probably be lower for many facilities than costs calculated for the high cost scenario.

For the high cost scenario, the unit cost was assumed to be $23 per cfm for most APC systems, which correlates with the smallest APC system size. A unit cost of $17 per cfm was assumed for tanks requiring an APC system of up to 10,000 cfm. For the low cost scenario, it was assumed that 55 facilities that are required to control 103 tanks under PAR 1469 would combine tanks to create the largest possible system, resulting in a lower overall cost. It is further assumed that installation of new APCs systems for Tier III Tanks starts in 2019 ~~and 2020, respectively~~.

The total cost of installing the APC systems is estimated at $6.5 to $11.3 million, for low cost and high cost scenarios, respectively. The total average annual cost of installing the APCs are estimated at $0.46 to $0.97 million over 15 years, depending on the real interest rate assumed (1% for the low cost scenario and 4% for the high cost scenario, respectively).

Based on the approach described, staff initially estimated 137 existing Tier III Tanks at 55 chromium plating and anodizing facilities would need to be controlled as a result of PAR 1469 requirements. It was assumed that facilities will use a lower cost option rather than install~~ing~~ APC systems where available. This could be the case for tanks that are currently air sparged, such as chem-film and passivation tanks. By removing air sparging, these tanks become Tier I Tanks. This analysis assumes these tanks will be retrofitted with fluid eductors, rather than continuing to be air sparged, resulting in much a lower overall cost to the facility. There are an estimated 20

chem film and passivation tanks that fall under this assumption, all located at facilities within Chromic Acid Anodizing (Medium) facilities.

Of the Tier III Tanks, 46 tanks in the Decorative Chromium Plating (Small), Decorative Chromium Plating (Medium) and Hard Chromium Plating (Large) facility categories are used to conduct either electropolishing or reverse plating (i.e. stripping) operations. Liquid sampling was conducted at 10 facilities to determine hexavalent chromium concentrations from these tanks. Tanks with hexavalent chromium concentrations in excess of 1,000 ppm are considered Tier III Tanks under PAR 1469, and tanks with concentrations under 1,000 ppm are not regulated. Sample results of tanks under 1,000 ppm within each facility category were scaled by the number of stripping/electropolishing tanks within that facility category to determine the number of tanks not expected to need controls. After adjusting for eductors used in passivation and chem film tanks, and for stripping/electropolishing tanks, the adjusted number of new APC systems serving existing Tier III Tanks is 103 for the high cost scenario and 64 for the low cost scenario.

- **Capital Cost for New APC Systems for Existing Electrolytic Tanks Controlled by Chemical Fume Suppressants Only**

High Cost Scenario:

- 27 new APC systems
- Chemical fume suppressants will not be ~~re~~certified prior to 2021
- Cost: $2,744,000

Low Cost Scenario:

- no new APC systems
- Chemical fume suppressants will be ~~re~~certified prior to 2021
- Cost: $0

In addition to new APC systems for Tier III Tanks, this analysis also includes cost estimates for APC systems for existing tanks that are currently controlled only by certified chemical fume suppressants. There are a total of 27 facilities with chromium electroplating and/or anodizing tanks that are currently controlled only by certified chemical fume suppressants.

It is assumed that all tanks located at facilities that are complying with the current requirements of Rule 1469 using only fume suppressants will delay any decisions on installing APC systems until after SCAQMD provides notice to facilities in January 2020 regarding the availability of certified chemical fume suppressants. It is further assumed that all facilities will install one APC system for all electroplating/anodizing tanks located at the facility. These assumptions recognize the small size of facilities currently using certified chemical fume suppressants and the likelihood that most of these facilities have a single electroplating or anodizing tank. Therefore, 27 additional APC systems were assumed to be installed to control emissions from electroplating/anodizing operations at these facilities in the event that chemical fume suppressants are not certified by SCAQMD and CARB.

- **Cost of PTEs**

High Cost Scenario:

- 2 PTEs will be triggered
- Ventilation system based on 15 air changes per hour
- Cost: $340,000

Low Cost Scenario:

- 2 PTEs will be triggered
- Ventilation system based on 6 air changes per hour
- Cost: $184,000

The PAR 1469 requirement for a PTE is triggered by one of several proposed provisions. These include:

1. More than one ~~failure of a~~ non-passing source test within a consecutive 48-month~~s~~ period; or
2. Two failures to cease operating a tank controlled by air pollution control (APC) system within 48 months for facilities located more than 1,000 feet from a sensitive receptor or a school; or a single failure for facilities located less than 1,000 feet from a sensitive receptor or a school, after a:
   (i) Failed parameter monitoring measurement (i.e. slot velocity or smoke test) of an APC system; or
   (ii) Failed smoke test of an add-on non-ventilated APC device (i.e. tank cover or Merlin Hood).

Within 180 days after PAR 1469 is adopted, enclosure openings for both building enclosures and PTEs are required to be less than 3.5% of the building envelope (i.e. area of walls plus floor and horizontal projection of ceiling on the floor). This requirement would be in effect before any PTE can be triggered. This means all necessary building construction would be done prior to a PTE being required. In addition to meeting the enclosure opening requirement, a PTE will require the installation of a ventilation system designed to meet the face velocity requirements of EPA Method 204. This is the only construction assumed if a PTE is triggered. Staff believes the likelihood of triggering construction of a PTE under any of the scenarios listed above is very low. To be conservative, an estimate of two PTEs was used.

The ventilation rate assumed for the low cost scenario is based on six air changes per hour (ACH) and based on 15 ACH for the high cost scenario. This equates to 4,000 cfm to 10,000 cfm for an average size building (40,000 cubic feet of volume).

It is assumed that the APC system consists of similar makeup to a dedicated system serving a Tier III Tank; that is, a mist eliminator followed by pre-filter and HEPA filters as final control. As such, the cost of installation of an APC system as described before is $23 per cfm for the 4,000 cfm system, and $17 per cfm for the 10,000 cfm system. It is further assumed that no building

construction will be necessary to meet the PTE requirements, since PAR 1469 already requires that openings for a building enclosure do not exceed 3.5% of the building envelope, and all necessary construction has already taken place. The estimated cost of the two PTEs is therefore $184,000 for the low cost scenario, and $340,000 for the high cost scenario. Annual operating costs for the two PTEs are estimated as 18% of the capital cost,[7] plus electricity to operate the ventilation blower. This O&M cost was already also assumed for APC systems serving Tier III Tanks.

- **Initial Source Testing for New APC Systems for existing Tier III Tanks**

High Cost Scenario:

- 103 initial source tests for new APC systems
- One APC system per Tier III Tank
- Cost: $1,937,000*

Low Cost Scenario:

- 64 source tests for new APC systems
- Multiple Tier III tanks per APC system
- Cost: $1,270,000

*Cost is adjusted for removal of stripping tanks within Decorative (small) and Decorative (medium) categories based on low concentrations (less than 1000 ppm) of hexavalent chromium measured during sampling.

PAR 1469 requires an initial source test for new APC systems to measure emissions and establish system parameters. This requirement will affect 103 Tier III Tanks at 55 facilities. For the high cost scenario, it was assumed that one APC system is necessary for each tank resulting in 103 APC systems. For the low cost scenario, it is assumed that facilities with Tier III Tanks will take advantage of the cost savings of a larger system serving multiple tanks and 64 APC systems would serve 103 Tier III Tanks. Staff received a quote from a source testing contractor that performs the majority of source tests for facilities subject to PAR 1469. The current cost of a conventional source test consisting of three individual collection runs according to a SCAQMD approved protocol is $20,000. The total estimated costs for source tests conducted on APC systems serving 103 Tier III Tanks ranges from $1,270,000 for the low cost scenario to $1,937,000 for the high cost scenario. It is further assumed that initial source tests for new Tier III Tanks start in 2020 and 2021 and that for electrolytic tanks starts in 2022, respectively.

[7] 18% O&M for PTE is based on information provided by industry economist consultant.

- **Initial Source Tests for Existing APCs for Existing Electrolytic Tanks**

High Cost Scenario:

- 25 initial source tests for existing APC systems if most recent source test was conducted before January 2009 at $20,000 each
- 64 emission screening tests for existing APC systems if most recent source test was conducted before January 2009 at $14,000 each
- Cost: $1,396,000

Low Cost Scenario:

- Same as High Cost Scenario
- Cost: $1,396,000

PAR 1469 requires a source test for existing equipment. Some APCs serving existing electrolytic tanks were tested following the previous amendment to Rule 1469 in 2008. In order to minimize the cost of this requirement to industry, APCs with source tests that were conducted after January 2009 are allowed to conduct an emissions screening test to satisfy the initial source testing requirement. In addition, PAR 1469 allows facilities with a source test conducted after January 2015 to satisfy the requirement for an initial source test. An emissions screening test consists of a single run and is estimated to cost $14,000. It is estimated that it will cost $1,396,000 to source test 89 APC systems serving electrolytic tanks, for both the low cost and high cost scenarios.

- **Initial Source Tests for New APC Systems for Existing Electrolytic Tanks controlled by Chemical Fume Suppressants Only**

High Cost Scenario:

- 27 initial source tests for new APC systems serving tanks formerly controlled by chemical fume suppressants
- Chemical fume suppressants will not be certified prior to 2021
- Cost: $540,000

Low Cost Scenario:

- No initial source tests for tanks controlled by chemical fume suppressants
- Chemical fume suppressants will be certified prior to 2021
- Cost: $0

The high cost scenario assumes that certified chemical fume suppressant would not be certified prior to the July 2021 date in PAR 1469, and ~~would require that APC systems at~~ facilities <u>with</u> tanks that currently use certified chemical fume suppressants <u>would require APC systems</u> ~~are necessary~~ to comply with the emission limits. If this occurs, 27 new APC systems would be required at 27 facilities. The estimated cost to source test these APC systems is $540,000. The

low cost scenario assumes a chemical fume suppressant will be certified and available by July 2021 and no APC systems are necessary, resulting in no additional cost.

The total initial source test cost are estimated at $2,666,000 to $3,873,000 for low and high cost scenarios, respectively.

- **Permitting Costs for New APC Systems for Existing Tier III Tanks**

High Cost Scenario:

- 103 permit applications for new APC systems
- One APC system per Tier III Tank
- Cost: $420,000

Low Cost Scenario:

- 64 permit applications for new APC systems
- Multiple Tier III tanks per APC system
- Cost: $280,000

A permit application fee is submitted with the permit application for each new APC system required by PAR 1469. The estimated number of Tier III Tanks required to be controlled is 103 Tier III Tanks at 55 facilities, as previously described. The applicable permit fee schedule is Schedule C, which is $4,354 for each permit required. As previously described, the high cost scenario assumes individual APC systems for each tank, resulting in a total one-time cost of $420,000. The low cost scenario assumes 64 APC systems will be necessary to control emissions from 103 Tier III Tanks, resulting in a one-time permitting application fee cost of $280,000.

- **Permitting for New APC Systems Serving Existing Electrolytic Tanks Controlled By Chemical Fume Suppressants Only**

High Cost Scenario:

- 27 permit applications for new APC systems serving tanks formerly controlled by chemical fume suppressants only
- Chemical fume suppressants will not be certified prior to 2021
- Cost: $118,000

Low Cost Scenario:

- No permit applications for tanks controlled by chemical fume suppressants only
- Chemical fume suppressants will be certified prior to 2021
- Cost: $0

If ~~re-~~certification of a chemical fume suppressant is not made available for existing electrolytic tanks by July 2021, the installation of new APC systems would be required by PAR 1469.

Permitting costs associated with the new APC systems are $118,000. The low cost scenario assumes availability of a certified chemical fume suppressant, and would result in no installation of an APC system and no permitting costs accordingly.

- **Fluid Eductors**

High Cost Scenario:

- 20 passivation and chem film tanks will use fluid eductors rather than controlling tanks with an APC system
- Cost quote obtained by industry ~~Environomics (MFASC~~ consultant~~)~~
- Cost: $42,000

Low Cost Scenario:

- 20 passivation and chem film tanks will use fluid eductors rather than controlling tanks with an APC system
- Cost quote obtained by SCAQMD staff
- Cost: $30,000

As previously described, it is assumed that facilities would choose to use a lower cost option over installing APC controls where available. For tanks that are currently air sparged, but where chromium concentrations are low enough to be considered Tier I Tanks without air sparging, such as chem-film and passivation tanks, a lower cost option is available in the form of fluid eductors. This analysis assumes these tanks will be retrofitted with fluid eductors, rather than continuing to be air sparged, resulting in much lower overall cost as compared to installing and maintaining an APC system. Since there are no moving parts within fluid eductors, there is no maintenance cost. There are an estimated 20 chem film and passivation tanks that can make use of this option. SCAQMD staff obtained an estimated cost of $1,500 for fluid eductors sized to fit an average tank. This value is used for the low cost scenario. MFASC <u>industry</u> consultant ~~Environomics~~ obtained a similar quote of $2,100 per average tank, and this value is used for the high cost scenario. The capital costs for fluid eductors in PAR 1469 is estimated at $30,000 and $42,000 for low cost scenario and high cost scenario, respectively.

Annual O&M Costs of APC Systems and Other Recurring Costs

Annual cost estimates include annual O&M costs of APC systems, annual costs of electrical power to run new ventilation blowers, parameter monitoring, annual permit renewal fees, and annual costs of periodic (every five to seven years) source tests required under PAR 1469.

- **Screening Source Test (Recurring) Costs for Existing Electrolytic and Tier III Tanks**

High Cost Scenario:

- 219 source tests every 5 to 7 years
- 103 emission screening tests for new APC systems serving Tier III tanks + 89 screening source test for existing APC systems serving electrolytic tanks + 27 screening source tests for new APC systems serving tanks formerly controlled by chemical fume suppressants
- Cost: $5,897,000 total for years 2019 to 2035 (present value), see Table 2 Screening Test (Recurring) categories

Low Cost Scenario:

- 153 source tests every 5 to 7 years
- 64 emission screening tests for new APC systems serving Tier III tanks + 89 emission screening tests for existing APC systems serving electrolytic tanks
- Cost: $4,187,000 total for years 2019 to 2035 (present value), see Table 2 Screening Test (Recurring) categories

PAR 1469 requires source tests to be conducted every five to seven years for new and existing APC systems. The compliance dates for initial source tests are staggered by 180 days, depending on when the APC system is required to be installed. For chromic acid anodizing facilities, the initial source test is required by October 2020 and next subsequent test within five to seven years, by 2025 or 2027. For hard chrome plating facilities the initial test would be due in April 2021 and the subsequent test in 2026 or 2028. For decorative plating facilities, the initial test would be due in October 2021 and the subsequent test in 2026 or 2028.

For the high cost scenario, it is assumed that a total of 219 source tests are required every five to seven years. This would include source tests for 103 APC systems serving 103 Tier III Tanks, 89 APC systems serving electrolytic tanks, and 27 APC systems serving electrolytic tanks currently controlled by certified chemical fume suppressants only. It is assumed that each test will be a screening test only, at a cost of $14,000. For the low cost scenario, it is assumed that a total of 153 source tests are required every five to seven years. This would include source tests for 64 APC systems serving 103 Tier III Tanks and 89 APC systems serving electrolytic tanks. The total annual source test cost for the low and high cost scenarios are estimated at $268,000, and $378,000, respectively.

- **Annual Monitoring Costs**

High Cost Scenario:

- 412 labor hours for smoke tests
- 348 labor hours for inlet slot velocity measurements
- 103 new APC systems serving Tier III tanks + 89 existing APC systems serving electrolytic tanks + 27 new APC systems serving tanks formerly controlled by chemical fume suppressants
- Cost: $265,000 total for years 2019 to 2035 (present value)

Low Cost Scenario:

- 236 labor hours for smoke tests
- 306 labor hours for inlet slot velocity measurements
- 64 new APC systems serving Tier III tanks + 89 for existing APC systems serving electrolytic tanks
- Cost: $180,000 total for years 2019 to 2035 (present value)

PAR 1469 requires parameter monitoring to be conducted every six months. The requirements include conducting a smoke test to determine acceptable capture efficiency of the APC system, and inlet velocity measurements of the APC system to ensure they are operating at or near their design velocity. Smoke tests are an existing requirement and will only affect new APC systems. A conservative estimate of two hours per smoke test is assumed for this analysis. It is also assumed that existing shop personnel will conduct smoke tests. Under PAR 1469, 64 to 103 new APC systems will need to be tested twice per year, for a total of 236 to 412 labor hours. It is further assumed that labor rates for shop personnel are approximately $22 per hour which would result in a total estimated annual cost of $5,192 to $9,064 for shop personnel to conduct smoke tests.

Measurement of APC system inlet velocity is a new requirement that will affect existing as well as new APC systems. There are 89 existing systems, and from 64 to 103 new APC systems will be required under PAR 1469 for the low and high cost scenario, respectively. It is assumed that one hour per inlet velocity measurement will be required for this task. It is also assumed that existing shop personnel will conduct inlet slot velocity measurements. For the low cost scenario, 153 inlet slot velocity measurements (64 new + 89 existing) will be conducted twice per year, for a total of 306 labor hours. Under the high cost scenario 192 inlet slot velocity measurements (103 new + 89 existing) will be conducted twice per year, for a total of 384 labor hours. It is further assumed that labor rates for shop personnel are approximately $22 per hour, which would result in a total annual estimated cost of $6,512 to $8,448 for shop personnel to conduct inlet slot velocity measurements.

For the inlet slot velocity measurements, it is also assumed that one hot-wire anemometer capable of logging data will be purchased for this task. A suitable hot wire anemometer can be purchased

for $600, resulting in a total cost of $66,600 for the 111 facilities that conduct hexavalent chromium electroplating or chromic acid anodizing.[8]

- **O&M Costs of APC Systems**

High Cost Scenario:

- 18% of capital cost of new APC systems
- 103 new APC systems serving Tier III tanks + 27 new APC systems serving tanks formerly controlled by chemical fume suppressants
- Cost: $30,680,000 total for years 2019 to 2035 (present value)

Low Cost Scenario:

- 18% of capital cost of new APC systems
- 64 new APC systems serving Tier III tanks
- Cost: $17,655,000 total for years 2019 to 2035 (present value)

O&M costs include replacement filters, disposal of filters, and general maintenance, which includes labor to maintain APC systems. Staff used the methodology in the 2006 CARB Chromium Electroplating ATCM, which is based on a percentage of the total capital plus installation costs for the APC systems. The cost of electrical power usage was included in the CARB ATCM methodology but is adjusted here due to the fact that this analysis includes a separate line item for electrical power consumption. Therefore, a consistent ratio of 18% of the capital and installation costs is assumed for O&M for operating the APC systems.[9] The annual O&M cost of PAR 1469 is estimated at $1,168,000, and $2,010,000 for low cost scenario and high cost scenario, respectively.

Assumptions for APC Systems Serving High Temperature Tier III Tanks

Representatives of the metal finishing industry have reported that controlling emissions from tanks heated above 170 degrees may be problematic with regard to removing moisture from the effluent stream prior to final filtration. PAR 1469 requires an air pollution control system controlling Tier III Tanks to meet an emission limit of 0.0015 mg/amp-hr and it is assumed for this analysis that HEPA filtration (99.97% control efficiency at 0.3 μm) will be necessary to achieve this emission limit. HEPA filters work best in a dry air stream. Moisture in the form of mist, condensing water vapor and aerosols of liquid water is typically removed prior to final filtration using a mist eliminator or scrubbers. However, in a heated effluent stream that may be saturated, it is more difficult to remove moisture. Limited data suggests that it may be necessary to replace HEPA

[8] Cost estimate based on price figures obtained from: https://www.grainger.com/category/air-velocity-meters-and-anemometers/air-movement/test-instruments/ecatalog/N-b83?okey=hot+wire+anemometers&mkey=hot+wire+anemometers&refineSearchString=hot+wire+anemometers&NLSCM=14&EndecaKeyword=hot+wire+anemometers&searchRedirect=hot+wire+anemometers&sst=subset&suggestConfigId=

[9] 18% O&M for APC systems are based on information provided by industry economist consultant

filters more often in an APC system venting high temperature tanks than in an ambient-temperature air stream, due to the lower tolerance of HEPA filters in a saturated or near-saturated air stream.

One engineered solution suggested by ~~representatives of~~ the metal finishing industry (environmental consultants) is to introduce an additional volume of dry, ambient-temperature air to reduce the relative humidity. They provided an initial estimate of the necessary excess air to be 30%, with the caveat that this volume may need to be refined after installation. There are an estimated 40 tanks that are heated to 170 degrees or higher. These tanks are all located at facilities within the Anodizing (Medium) category. Therefore, the ventilation rate for 40 tanks located within the Anodizing (Medium) category is increased by 30% to account for this additional air. This assumption is made for both the low and high cost scenarios. A HEPA filter cost rated for 2000 cfm air flow at a differential pressure of two inches of water column is estimated at $611.[10]

The estimated average airflow for an APC system serving a Tier III Tank in the Anodizing (Medium) category ~~bin~~ is 12,810 cfm. Raising this value by 30% results in an estimated 16,653 cfm. It is assumed that nine HEPA filters will be necessary for this size system.

- **Screening Source Test (Recurring) Cost for Tier III Tanks**

All recurring costs are already accounted for under "Screening Source Test (Recurring) Cost for Existing Electrolytic and Tier III Tanks."

- **Screening Source Test (Recurring) Cost for New APC Systems for Electrolytic Tanks Controlled by Chemical Fume Suppressants**

All recurring costs are already accounted for under "Screening Source Test (Recurring) Cost for Existing Electrolytic and Tier III Tanks."

- **Annual Operating (Electrical) Costs**

High Cost Scenario:

- 2,615,000 kWh/yr
- Additional 30% excess air assumed for high temperature tanks
- Cost: $6,092,000 total for years 2019 to 2035 (present value)

Low Cost Scenario:

- 2,300,000 kWh/yr
- Standard assumptions – no excess air
- Cost: $5,174,000 total for years 2019 to 2035 (present value)

Survey data from existing APC systems was used to estimate power consumption as a function of blower size. From the survey results, it was determined that each horsepower of motor rating was associated with 550 cfm of ventilation air moving through ventilation systems installed in a typical chromium electroplating or chromic acid anodizing facility. The average size of a ventilation

[10] Cost estimate based on price figures obtained from: https://www.grainger.com/category/hvac-and-refrigeration-air-filters-hepa-filters/ecatalog/N-qbp/Ntt-hepa+filters?sst=subset&ts_optout=true

system estimated for each category of facilities was then correlated with motor horsepower that is required to move an equivalent volume of ventilation air. Total system motor horsepower was then converted to kilowatt-hours (kWh) of power per year required, assuming an average operating schedule of 12 hours per day and five days per week. Using this approach and a unit cost of $0.14-0.15/kWh results in a cost estimate of $338,000 and $368,000 annually for low and high cost scenario for electrical power to run ventilation blowers for the new APC systems required under PAR 1469.[11]

- **Annual Permit Renewal Costs for Tier III Tanks**

High Cost Scenario:

- 130 permit renewals for new APC systems
- One APC system per Tier III tank
- Cost: $2,496,000 total for years 2019 to 2035 (present value)

Low Cost Scenario:

- 64 permit applications for new APC systems
- Multiple Tier III tanks per APC system
- Cost: $1,904,000 total for years 2019 to 2035 (present value)

An annual permit renewal fee is charged for each new permit required under PAR 1469. This includes APC systems serving 103 Tier III Tanks, as previously discussed. The annual permit renewal fee for Schedule C is $1,409 for calendar year 2018 and thereafter. As previously described, the high cost scenario assumes individual APC systems for each Tier III Tank, resulting in 103 new APC systems and an annual permit renewal cost of $145,000. The low cost scenario assumes 64 APC systems will be necessary to control emissions from 103 Tier III Tanks, resulting in an average annual permit renewal fee of $83,000. It is further assumed that the annual permit renewal cost starts in 2020.

The high cost scenario also includes annual permit renewal fees for new APCs serving existing electrolytic tanks ~~installed due to~~ if no chemical fume suppressants ~~being~~ are certified after July 2022. The cost of annual permit renewal fees for these 27 APC systems is $38,043. Total annual permit renewal costs are estimated at $183,000 for the high cost scenario and $118,000 for the low cost scenario, respectively.

[11] Cost estimate based on price figures obtained from: https://www.electricitylocal.com/states/california/los-angeles/

FACILITY-BASED IMPACT ANALYSIS

The 2014 Abt audit report recommended that the SCAQMD expand its small business impacts analysis in its socioeconomic assessments. Specifically, Abt recommended staff to limit the scope of its small business impact analyses to the direct compliance expenditures of regulated facilities. To provide context for the estimated compliance costs for small business, Abt recommended that SCAQMD compare these costs to the annual revenues and/or profits of small business. For publicly traded companies, they recommended SCAQMD ~~to~~ obtain revenue and profit data from existing databases such as Dun & Bradstreet or Hoover's. For private companies, Abt recommended that SCAQMD compare costs to the revenues and/or profits of the average small business in an industry based on industry-specific revenue data from the Economic Census and industry-specific profit margin data from the Risk Management Association's Annual eStatement Studies series.

SCAQMD conducted a facility-based impact analysis in order to provide further information on the potential impacts of PAR 1469 for small businesses.[12] This analysis measures the annual compliance cost a facility may incur under the proposed amendments relative to its annual revenues. While this section provides information about how compliance costs affect an individual facility, it does not describe broader economic impacts, such as the impact on jobs and other socioeconomic effects, which are described in the following section of this report. The compliance cost is categorized by the different facility types as summarized in Table 6, which provides the basis of the cost data for this analysis. There are a few different sources of revenue and sales data that can be utilized for this type of analysis and they are discussed below.

- **Revenue Data**

Staff has examined a number of different data sources to help understand the amount of revenue for affected facilities. The first data source described here, which helps provide a baseline for this analysis, is from the 2012 U.S. Economic Census.[13] The Industry Statistics for Subsectors and Industries by Employment Size includes data by both detailed industry level (six digit NAICS), and by number of employees per establishment. Table 6 describes the data for the electroplating, plating, polishing, anodizing, and coloring industry (NAICS 332813), which comprises the vast majority of affected facilities under PAR 1469. According to these data, the majority of establishments fall within the less than four employee category. The average revenue per establishment ranges from $264,000 for the smallest category of facilities to over $24 million for the largest category of facilities, with an average of $3 million per facility. The revenue per employee tends to increase with the size of the establishment, with an average of $137,200 per

[12] Based on methodological recommendations from Industrial Economics (2017): http://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/iec_smallscalebizrpt.pdf .

[13] U.S. Census Bureau. Manufacturing Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_31SG2&prodType=table

employee for all establishments in the United States. The revenue per employee across all establishments in this industry in the four-county SCAQMD region is $107,000.[14]

Table 6:
2012 Establishment Annual Revenue by Employment Size for the Electroplating, Plating, Polishing, Anodizing, and Coloring Industry (NAICS 332813)[15]

Size of establishment	Revenue* per establishment	Revenue* per employee
0 to 4 employees	$264,071	$83,235 to $208,088
5 to 9 employees	$835,424	$123,098
10 to 19 employees	$1,558,802	$110,395
20 to 49 employees	$3,946,687	$125,509
50 to 99 employees	$10,179,833	$144,977
100 to 249 employees	$24,141,949	$173,178
250 to 499 employees**	n/a	n/a
500 to 999 employees**	n/a	n/a
All establishments	$2,977,510	$137,242

*Total value of shipments and receipts for services (2012 dollars)
** There were no facilities within NAICS 332813 found in the category of 250 to 499, 500 to 999 employees

Another data source considered for this analysis was the Dun & Bradstreet Enterprise Database. This database is used by staff to help classify potential affected facilities as small businesses as described in the previous section and it includes data on facilities' annual revenues and number of employees. Data on employment and revenue are available for 104 of the 115 affected facilities. Based on the available information, these data are considered to have a high level of confidence because it tracks with facility data, but nonetheless there is still some level of uncertainty associated with these estimates. In the following tables, the data are summarized according to size of establishment and the facility classification types used in development of PAR 1469. The data are first summarized by facility employment size in Table 7. Based on these data, the total annual revenue for affected facilities for which data are available is nearly $1 billion dollars and the total number of employees directly employed by affected facilities is about 5,300. The average annual revenue for the affected facilities is approximately $9.2 million and increases with facility size. The revenue per employee is approximately $182,000 and is proportional to facility size. The revenue per employee from the Dun & Bradstreet 2017 database are comparable to that from the Economic Census when adjusted to 2017 dollars, adding to staff's confidence in the validity of the U.S. Economic Census data.[16]

[14] U.S. Census Bureau. Manufacturing Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_31A1&prodType=table

[15] U.S. Census Bureau. Manufacturing Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_31SG2&prodType=table

[16] The $137,200 from Table 6 is approximately $151,000 in 2017 dollars when adjusted for California CPI.

Table 7:
Summary of Dun & Bradstreet Revenue and Employment Data (2017) by Facility Size

Employees	Number of facilities	Total Revenue (Millions)	Total Employees	Average Revenue (Millions)	Revenue per Employee
1 to 4	11	$1.90	25	$0.17	$76,000
5 to 9	14	$7.59	85	$0.54	$89,000
10 to 19	19	$24.18	246	$1.27	$98,000
20 to 49	24	$97.98	792	$4.08	$124,000
50 to 99	20	$233.52	1318	$11.68	$177,000
100 to 249	14	$498.97	2080	$35.64	$240,000
250 to 499	2	$97.32	743	$48.66	$131,000
Overall	**104**	**$961.46**	**5289**	**$9.24**	**$182,000**

The Dun & Bradstreet data are also summarized by facility classification in Table 8. These classifications correspond with those presented in the cost analysis section (Table 3). The Anodizing (Medium) facilities tend to have higher revenues than corresponding decorative and hard plating shops on average. There is a large range in revenue and number of employees within the facility categories.

Table 8:
Summary of Dun & Bradstreet Revenue and Employment Data (2017) by Facility Category

Category*	Number of Facilities	Average Annual Revenue (Millions)	Range of Annual Revenue (Millions)	Average Number of Employees per facility	Range of Employees per facility	Average Revenue per employee
Anodizing (Small)	13	$13.44	$0.35 - $56.22	61	7 - 154	$220,000
Anodizing (Medium)	14	$25.71	$1.1 - $167.92	109	40 - 388	$240,000
Decorative (Small)	27	$1.67	$0.08 - $5.8	18	1 - 70	$90,000
Decorative (Medium)	11	$10.19	$0.04 - $58.81	62	1 - 225	$160,000
Decorative (Large)	5	$10.76	$0.16 - $24.04	77	2 - 150	$140,000
Decorative (Other)	2	$1.56	$0.05 - $3.06	8	1 - 14	$210,000
Hard (Small)	6	$8.20	$0.86 - $42.49	42	7 - 175	$200,000
Hard (Medium)	4	$10.09	$0.59 - $19.93	54	5 - 130	$190,000
Hard (Large)	18	$5.10	$0.22 - $45.85	40	3 - 355	$130,000
Trivalent (Other)	4	$7.85	$0.72 - $20.35	53	7 - 140	$150,000
Total	**104**	**$9.24**	**$0.04 - $167.92**	**51**	**1 - 388**	**$180,000**

*Anodizing (Other) and multiple (Large) are excluded from the table due to lack of revenue data. Hard (Other) was combined with Hard (Large) category because Hard (Other) consists of one facility.

During the development of PAR 1469, facilities were sent a survey with questions on many aspects of their operations. Included were questions on the number of workers employed by facility and the average annual revenues. The response rate to the questions on number of employees was about 45% and the response rate to the questions on revenue was about 36%. Staff's analysis of this survey data resulted in an average revenue per employee of about $69,000. Upon statistical evaluation it was found that these data differ significantly from the baseline data from the U.S. Economic Census and facility specific data provided by the Dun & Bradstreet database.[17] Due to this large difference, the survey data was not utilized here for the assessment of facility-based impacts.

- **Analysis**

Table 9 summarizes the results of the analysis using the Dun & Bradstreet sales data. The second column shows the average annual facility cost for facilities in each category for ~~the~~ both the high and low cost scenarios. The Anodizing (Medium facility) category has the highest average cost for both the high and low cost scenario, with a range of $55,000 to $90,000. The facility average cost for the Decorative (Small) category, which has the greatest number of affected facilities, ranges from $12,000 to $26,000. The next column shows the range of facility costs in each category. Facility costs are estimated to range from $0 to $97,000 depending on facility category and low or high cost scenarios. The Anodizing (Medium) category has costs that range from $5,000 to $97,000, while the Decorative (Small) category has costs that range from $12,000 to $26,000.

Table 9
Facility-specific Annual Cost and Cost Impacts

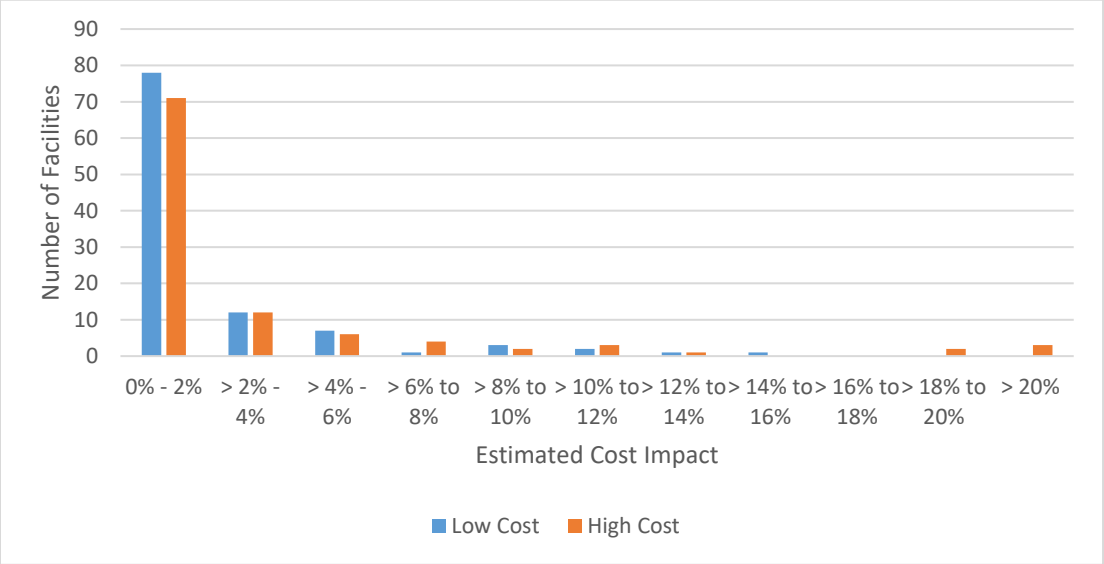
Category	Average Facility Annual Cost (Low Cost Scenario - High Cost scenario)	Range of Facility Annual Cost (Min - Max)	Average Cost Impacts (Low Cost scenario - High Cost Scenario)
Anodizing (Small)	$44,000 - $65,000	$43,000 - $66,000	1.6% - 2.5%
Anodizing (Medium)	$55,000 - $90,000	$5,000 - $97,000	0.8% - 1.4%
Decorative (Small)	$12,000 - $26,000	$12,000 - $26,000	3.4% - 7.4%
Decorative (Medium)	$16,000 - $24,000	$16,000 - $24,000	1.6% - 2.4%
Decorative (Large)	$3,000 - $3,000	$3,000 - $3,000	0.4% - 0.4%
Decorative (Other)	$3,000 - $3,000	$3,000 - $3,000	3% - 3.1%
Hard (Small)	$2,000 - $4,000	$1,000 - $4,000	0.1% - 0.3%
Hard (Medium)	$7,000 - $7,000	$6,000 - $9,000	0.4% - 0.4%
Hard (Large)	$22,000 - $30,000	$22,000 - $30,000	1.9% - 2.7%
Trivalent (Other)	$0 - $0	$0 - $0	0% - 0%
Total	**$22,000 - $36,000**	**$0 - $97,000**	**1.8% - 3.3%**

[17] A student's t-test was used to test the hypothesis that the sample average revenue per employee was different from that of the Economic Census. The result of the test was to reject the null hypothesis that the two averages were equal with $\alpha < 0.01$.

Combining these cost data with the revenue data from Table 7, the facility based cost impacts are estimated. The cost impacts for affected facilities are on average 1.8% for the low cost scenario and 3.3% for the high cost scenario. The Anodizing (Medium) category has average cost impacts that range from 0.8% to 1.4%, while the Decorative (Small) category has average cost impacts that range from 3.4% to 7.4%.

These facility-specific cost impacts are provided here for additional information, as requested by stakeholders, as SCAQMD does not have any threshold above which cost impacts are considered significant. Figure 2 illustrates the distribution of cost impacts for affected facilities. It is important to note that there is a greater amount of uncertainty associated with the estimate for any individual facility than there is for the average impact shown in Table 9. Figure 2 below illustrates the ~~predominance~~ majority of facilities in both scenarios ~~that~~ are estimated to have cost impacts of 0% to 2%.

Figure 2:
Distribution of Cost Impacts



While the facility-based analysis provides further information about the cost impacts to individual facilities, it cannot provide information about how these costs may be passed through to downstream industries and other end-users. It is likely that if a large portion of facilities in this industry are incurring compliance costs, it will have an effect on prices throughout the supply-chain. The extent to which these costs are passed through and have impacts on the regional economy is discussed in the next section of this report.

Staff has added a provision that the Executive Officer in consultation with CARB may ~~certify~~ approve an alternative to a wetting agent chemical fume suppressant that is ~~as~~ equally effective as a certified chemical fume suppressant pursuant to paragraph (l)(2) of PAR 1469. This approach will allow facilities to use an alternative to a wetting agent chemical fume suppressant if emissions testing conducted by SCAQMD demonstrates that the alternative is as equally effective as a certified wetting agent chemical fume suppressant. Additionally, the owner or operator of a facility

that opts to use an alternative to a wetting agent chemical fume suppressant will be required to comply with ~~permit~~ conditions that are specified during the certification process.
The alternative to a wetting agent chemical fume suppressant would be available to only the smallest plating facilities that are currently allowed to use chemical fume suppressants. This approach will provide a cost savings given that SCAQMD staff will conduct the necessary emissions testing. Similar to the use of certified chemical fume suppressants, no further emissions testing would be required if the operator complies with the conditions of the ~~certification~~ approval for the alternative.

The socioeconomic impact analysis conservatively assumes that if chemical fume suppressants are not certified, the owner or operators of facilities subject to PAR 1469 will install an add-on pollution control technology such as HEPA filtration ~~which is a conservative assumption~~. Recognizing the potential financial impact to smaller facilities, the adoption resolution for PAR 1469 will include a commitment that staff will seek funding to help offset the cost of add-on pollution controls if non-PFOS chemical fume suppressants cannot be certified. If an alternative to a wetting agent chemical fume suppressant can be used for these smaller plating facilities, this would eliminate source testing costs and possibly allow use of another air pollution control technology that has lower capital and operating costs.

JOBS AND OTHER SOCIOECONOMIC IMPACTS

The REMI model (PI+ v2.1) was used to assess the total socioeconomic impacts of a policy change (i.e., the proposed amended rule). The model links the economic activities in the counties of Los Angeles, Orange, Riverside, and San Bernardino, and for each county, it is comprised of five interrelated blocks: (1) output and demand, (2) labor and capital, (3) population and labor force, (4) wages, prices and costs, and (5) market shares.[18]

The analysis is performed relative to a baseline ("business as usual") where PAR 1469 would not be implemented. PAR 1469 would create a policy scenario under which the affected facilities would incur an average annual compliance cost totaling $2.64 to $4.30 million to comply with proposed requirements. Direct effects of PAR 1469 have to be estimated and used as inputs to the REMI model in order for the model to assess secondary and induced impacts for all the actors in the four-county economy on an annual basis and across a user-defined horizon (2019 to 2035). Direct effects of PAR 1469 include additional costs to the affected entities and additional sales by local vendors of equipment, devices, or services that would meet the proposed requirements. While compliance expenditures may increase the cost of doing business for affected facilities, the purchase of additional APCs and HEPA filters combined with spending on operating and maintenance, and source tests, may increase sales in other sectors. Table 10 lists the industry sectors modeled in REMI that would either incur costs or benefits from the compliance expenditures.[19]

[18] Within each county, producers are made up of 66 private non-farm industries, three government sectors, and a farm sector. Trade flows are captured between sectors as well as across the four counties and the rest of U.S. Market shares of industries are dependent upon their product prices, access to production inputs, and local infrastructure. The demographic/migration component has 160 ages/gender/race/ethnicity cohorts and captures population changes in births, deaths, and migration. (For details, please refer to REMI online documentation at http://www.remi.com/products/pi.)

[19] Improved public health due to reduced air pollution emissions may also result in a positive effect on worker productivity and other economic factors; however, public health benefit assessment requires the modeling of air quality improvements. Therefore, it is conducted for Air Quality Management Plans and not for individual rules or rule amendments.

Table 10:
Industries Incurring vs. Benefitting from Compliance Costs/Spending

Source of Compliance Costs	REMI Industries Incurring Compliance Costs (3-digit NAICS)	REMI Industries Benefitting from Compliance Spending (NAICS)
APCs (HEPA Filters)	Fabricated Metal Manufacturing (332) Other Manufacturing (333-337) Wholesale and Retail Trade (423, 444) Professional, Scientific, and other Technical Services (541, 651) Repair and Maintenance (811)	*One-time-Capital:* Machinery Manufacturing (333)
APCs (HEPA) Maintenance		*Recurring Cost:* Professional, Scientific, and Technical Services (541)
Initial Source Tests		*One-time Cost* Professional, Scientific, and Technical Services (541)
Recurring Screening Tests		*Recurring Cost* Professional, Scientific, and Technical Services (541)
Permanent Total Enclosures		
Building Enclosure Modifications		*One-time-Capital:* Construction (236)
~~BMPS~~ BMPs (Splash Guards, Barrier, Pressure Gauge, Magnetic Control Device)		*One-time-Capital:* Machinery Manufacturing (333)
Utilities (Electricity)		*Recurring Cost:* Utilities (221)
Permits for New APCs		*One-time-Capital:* Government (92)
Annual Permit Renewal Fee Permits		*Recurring Cost:* Public Administration (92)[20]
Fluid Eductors		*One-time-Capital:* Machinery Manufacturing (333)

As discussed earlier, the total average (2019 to 2035) annual compliance costs for affected facilities from PAR 1469 was estimated to range from $2.64 million (low cost scenario) to $4.3 million (high cost scenario) per year.

[20] Instead of using the default "local government spending" policy variable in REMI, staff elected to use a "custom local government spending" policy variable that it considers to more accurately reflect the SCAQMD spending portfolio. This custom policy variable has a lower proportion of local government spending going into the construction industry and proportionately allocates the difference to local government and professional services sectors. The simulation using this custom policy variable results in a prediction of a lower net job gain than would have been found with the default policy variable. This follows the approach taken in the Socioeconomic Assessment of the Proposed Amended Regulation III Fees from June 2017.

As presented in Tables 11 and 12, PAR 1469 is expected to result in approximately 37 to 63 to jobs forgone annually, on average between 2019 and 2035, when a low cost scenario and high cost scenario are assumed. The projected jobs loss impacts represent about 0.001 % of the total employment in the four-county region. In 2019, under both scenarios, a few additional jobs could be created in the overall economy. Job gains in the sector of manufacturing (NAICS 31-33) are due to purchase of various types of control equipment by the affected facilities (as presented in Tables 11 and 12).

The manufacturing sector (NAICS 31-33), which is projected to bear most of the estimated total compliance costs would have about 2 to 12 jobs forgone on average annually. The remainder of the projected reduction in employment would be across all major sectors of the economy from secondary and induced impacts of PAR 1469, such as the additional costs of doing business by the affected supply-chain businesses.

Although the manufacturing sector would bear the majority of the estimated total compliance costs of PAR 1469, the industry job impact is projected to be relatively small (annual average of 2 to 12 jobs foregone between 2019 and 2035). This is because other businesses in the manufacturing sector, specifically in the machinery manufacturing industry, are expected to benefit from the increased sale of various types of control equipment, thus offsetting the direct effect of compliance costs incurred by other manufacturing facilities. In earlier years, job gains from the expenditures made by the affected facilities would more than offset the jobs forgone from the additional cost of doing business. Jobs foregone in the later years are due to the additional cost of doing business by affected facilities.

Table 11:
Job Impacts of PAR 1469 (High Cost Scenario)

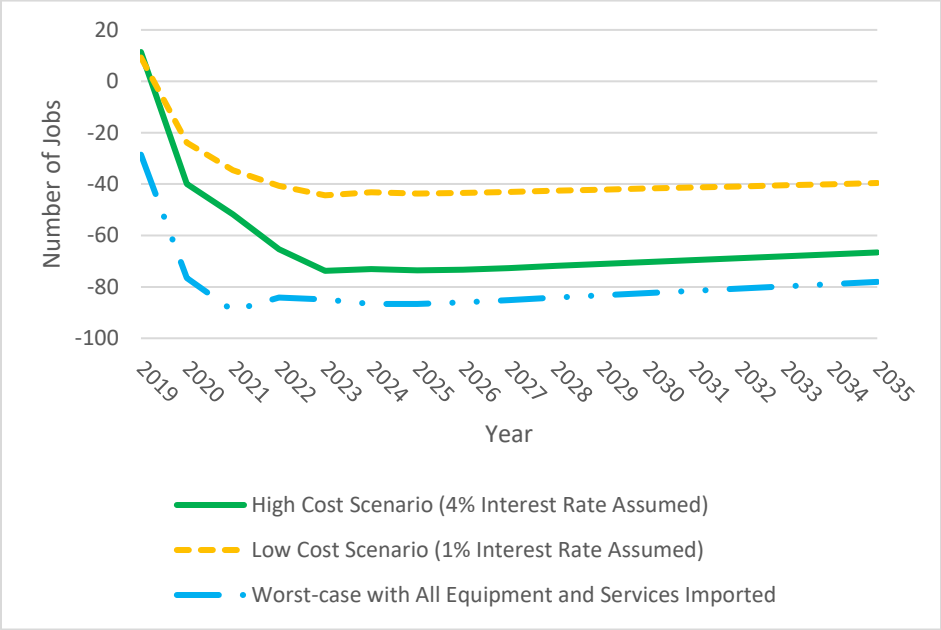
Industries (NAICS)	2019	2025	2035	Average Annual Jobs (2019-2035)	Average Annual Baseline Jobs (2019-2035)	% Change from Baseline Jobs
Construction (23)	-1	-10	-4	-7	535,349	-0.001%
Fabricated Metal (332)	0	-7	-8	-7	91,762	-0.007%
Machinery (333)	8	1	0	1	25,554	0.005%
Computer and Electronic Products (334)	0	-2	-2	-2	101,425	-0.002%
Rest of Manufacturing (31-33)	1	5	0	3	384,406	0.001%
Total Manufacturing (31-33)	8	-13	-14	-12	603,147	-0.002%
Wholesale trade (42)	1	-3	-3	-3	539,304	-0.001%
Retail trade (44-45)	-2	-9	-8	-8	1,039,963	-0.001%
Professional and Technical Services (54)	1	-2	-2	-1	923,211	0.000%
Food services and drinking places (722)	0	-4	-4	-4	708,842	-0.001%
Repair and Maintenance (811)	0	-1	-1	-1	129,259	-0.001%
Government (92)	3	-4	-5	-3	943,724	-0.001%
Other Industries	1	-27	-25	-24	5,759,046	-0.001%
Total	**11**	**-74**	**-67**	**-63**	**11,181,845**	**-0.001%**

Table 12:
Job Impacts of PAR 1469 (Low Cost Scenario)

Industries (NAICS)	2019	2025	2035	Average Annual Jobs (2019-2035)	Average Annual Baseline Jobs (2019-2035)	% Change from Baseline Jobs
Construction (23)	0	-6	-2	-4	535,349	-0.001%
Fabricated Metal (332)	0	-4	-5	0	91,762	0.000%
Machinery (333)	6	0	0	0	25,554	0.000%
Computer and Electronic Products (334)	0	-1	-1	0	101,425	0.000%
Rest of Manufacturing (31-33)	1	-3	-2	-2	384,406	-0.001%
Total Manufacturing (31-33)	6	-8	-9	-2	603,147	-0.001%
Wholesale trade (42)	0	-2	-2	-2	539,304	-0.001%
Retail trade (44-45)	-1	-5	-5	-5	1,039,963	-0.001%
Professional and Technical Services (54)	1	-1	-1	0	923,211	0.000%
Food services and drinking places (722)	0	-3	-3	-2	708,842	-0.001%
Repair and Maintenance (811)	0	-1	-1	-1	129,259	-0.001%
Government (92)	2	-2	-3	-2	943,724	-0.001%
Other Industries	1	-12	-10	-19	5,759,046	-0.001%
Total	**9**	**-44**	**-40**	**-37**	**11,181,845**	**0.000%**

Figure 3 presents a trend of job gain and losses over the 2019 to 2035 time frame. In addition, staff has analyzed an alternative scenario (worst case) where the affected facilities would not purchase any control or service from providers within SCAQMD's jurisdiction. This scenario would result in an average of 80 jobs forgone annually.

Figure 3:
Projected Regional Job Impact, 2019-2035



Competitiveness

PAR 1469 would increase the cost of services rendered by the affected industries in the region. The magnitude of the impact depends on the size and diversification of, and infrastructure in a local economy as well as interactions among industries. A large, diversified, and resourceful economy would absorb the impact described above with relative ease.

Changes in production/service costs would affect prices of goods produced locally. The relative delivered price of a good is based on its production cost and the transportation cost of delivering the good to where it is consumed or used. The average price of a good at the place of use reflects prices of the good produced locally and imported elsewhere.

It is projected that the manufacturing sector, where most of the affected facilities belong, would experience a rise in its relative cost of services by 0.0013% and 0.0022% and a rise in its delivered price by 0.0008% and 0.0012% in 2025 for the low and high cost scenarios, respectively.

While these changes are relatively small, it should be noted that the delivered price change is a change in the index of all prices in the manufacturing sector. Delivered prices that a facility may charge for specific goods or services may increase at a greater rate than this, allowing incurred costs to be passed through to downstream industries and end-users.

ATTACHMENT I

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Environmental Assessment for Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

August 2018

SCAQMD No. 02072018SW
State Clearinghouse No: 2018021048

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PREFACE

This document constitutes the Final Environmental Assessment (EA) for Proposed Amended Rule (PAR) 1469 - Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations. A Draft EA was released for a 32-day public review and comment period from February 16, 2018 to March 20, 2018. Analysis of PAR 1469 in the Draft EA did not result in the identification of any environmental topic areas that would be significantly adversely affected. Two comment letters were received from the public regarding the analysis in the Draft EA. The comment letters received relative to the Draft EA and responses to individual comments are included in Appendix E of this document.

In addition, subsequent to release of the Draft EA, modifications were made to PAR 1469 and some of the revisions were made in response to verbal and written comments received during the rule development process. To facilitate identification, modifications to the document are included as underlined text and text removed from the document is indicated by ~~strikethrough~~. To avoid confusion, minor formatting changes are not shown in underline or strikethrough mode.

Staff has reviewed the modifications to PAR 1469 and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the draft document. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the document pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, this document now constitutes the Final EA for PAR 1469.

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CHAPTER 1

PROJECT DESCRIPTION

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD or District) in 1977[1] as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). By statute, SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the District[2]. Furthermore, SCAQMD must adopt rules and regulations that carry out the AQMP[3]. The AQMP is a regional blueprint for how SCAQMD will achieve air quality standards and healthful air and the 2016 AQMP[4] contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP includes control measure TXM-02: Control of Toxic Metal Particulate Emissions from Plating and Anodizing Operations, which identifies Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid and Anodizing Operations.

Prior to the adoption of Rule 1469, chromium electroplating (hard and decorative) and chromic acid anodizing processes were regulated by Rule 1169 – Hexavalent Chromium – Chrome Plating and Chromic Acid Anodizing which was adopted on June, 3, 1988. However, on October 9, 1998, Rule 1169 was repealed and the provisions were adopted ~~instead~~ in Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations, which is part of Regulation XIV – Toxics and Other Non-Criteria Pollutants.

Ambient monitoring was conducted near several Rule 1469 facilities, and this data, combined with sampling data and emissions testing indicated that the application of heat and/or air sparging[5] can cause hexavalent chromium emissions from ~~the~~ tanks depending on the concentration of hexavalent chromium in the~~a~~ tank. Since these activities were not previously known to be sources of hexavalent chromium emissions, PAR 1469 now addresses these tanks and includes requirements to help minimize the release of fugitive emissions from these operations. These requirements include ~~such as~~ building enclosures, best management practices, and housekeeping provisions. PAR 1469 also has additional provisions to ensure continuous proper operation of point source air pollution control equipment and contingency provisions to add air pollution control equipment for a building enclosure for any facility that has repeated non-compliance with the point source emission requirements.

[1] The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch. 324 (codified at Health and Safety Code Section 40400-40540).
[2] Health and Safety Code Section 40460(a).
[3] Health and Safety Code Section 40440(a).
[4] SCAQMD, 2016 Air Quality Management Plan. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf
[5] Air sparging is solution mixing by dispersing air into the tank solution to create a homogeneous solution.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA), California Public Resources Code Section 21000 *et seq.*, requires environmental impacts of proposed projects to be evaluated and feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects to be identified and implemented. The lead agency is the "public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment" (Public Resources Code Section 21067). Since PAR 1469 is a SCAQMD-proposed amended rule, SCAQMD has the primary responsibility for supervising or approving the entire project as a whole and is the most appropriate public agency to act as lead agency (CEQA Guidelines[6] Section 15051(b)).

CEQA requires that all potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented if feasible. The purpose of the CEQA process is to inform the lead agency, responsible agencies, decision makers, and the general public of potential adverse environmental impacts that could result from implementing PAR 1469 and to identify feasible mitigation measures or alternatives, when an impact is significant.

Public Resources Code Section 21080.5 allows public agencies with regulatory programs to prepare a plan or other written documents in lieu of an environmental impact report once the Secretary of the Resources Agency has certified the regulatory program. SCAQMD's regulatory program was certified by the Secretary of Resources Agency on March 1, 1989, and has been adopted as SCAQMD Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment.

PAR 1469 has been crafted to further reduce emissions of hexavalent chromium from the facilities and tanks that were not previously known to be sources of hexavalent chromium emissions. PAR 1469 ~~and~~ has requirements to help minimize the release of fugitive emissions from these operations such as building enclosures, best management practices, and housekeeping provisions. Because PAR 1469 requires discretionary approval by a public agency, it is a "project" as defined by CEQA[7]. PAR 1469 (the proposed project) will reduce emissions of hexavalent chromium and will provide an overall environmental benefit to air quality. However, SCAQMD's review of the proposed project also shows that implementation of PAR 1469 may create secondary adverse effects on the environment either directly or indirectly. SCAQMD's review of these secondary adverse effects shows that PAR 1469 would not have any significant adverse effects on the environment. Thus, the type of CEQA document appropriate for the proposed project is an Environmental Assessment (EA). The EA is a substitute CEQA document, prepared in lieu of a Negative Declaration (CEQA Guidelines Section 15252), pursuant to SCAQMD's Certified Regulatory Program (CEQA Guidelines Section 15251(l) and SCAQMD Rule 110). The EA is also a public disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental impacts of the proposed project; and, 2) be used as a tool by decision makers to facilitate decision making on the proposed project.

[6] The CEQA Guidelines are codified at Title 14 California Code of Regulations Section 15000 *et seq.*
[7] CEQA Guidelines Section 15378

Thus, SCAQMD, as lead agency for the proposed project, prepared a Draft EA pursuant to its Certified Regulatory Program. The Draft EA includes a project description in Chapter 1 and an Environmental Checklist in Chapter 2. The Environmental Checklist provides a standard tool to identify and evaluate a project's adverse environmental impacts and the analysis concluded that no significant adverse impacts would be expected to occur if PAR 1469 is implemented. Because PAR 1469 will have no statewide, regional or areawide significance, no CEQA scoping meeting is required to be held pursuant to Public Resources Code Section 21083.9(a)(2). Further, pursuant to CEQA Guidelines Section 15252, since no significant adverse impacts were identified, no alternatives or mitigation measures are required.

The Draft EA wasis being released for a 32-day public review and comment period from February 16, 2018 to March 20, 2018 and two comment letters were received. AllAny comments received during the public comment period on the analysis presented in theis Draft EA have will been responded to and are included in Appendix E to thise Final EA.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469, some of which were made in response to verbal and written comments received during the rule development process. The modifications include: minor changes for rule clarification, including additions of and revisions to definitions and the reorganization of various components throughout the rule. SCAQMD staff reviewed the modifications to PAR 1469 and concluded that none of the modifications constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; 3) or provide new information of substantial importance relative to the draft document. In addition, the Draft EA concluded no significant adverse environmental impacts and the revisions to PAR 1469 in response to verbal or written comments would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft EA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Thus, the Draft EA has been revised to reflect the aforementioned modifications such that it is now a Final EA.

Prior to making a decision on the adoption of PAR 1469, the SCAQMD Governing Board must review and certify the Final EA, including responses to comments, as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PAR 1469.

PROJECT LOCATION

Rule 1469 currently applies to all chromium electroplating and chromic acid anodizing facilities located throughout SCAQMD's jurisdiction. SCAQMD staff has identified 115 facilities that conduct decorative or hard chromium electroplating or chromic acid anodizing operations that would be subject to PAR 1469. Of the 115 affected facilities, 47 facilities conduct decorative hexavalent chromium plating, 31 facilities conduct hard hexavalent chromium plating, 31 facilities conduct chromic acid anodizing, only 4 facilities conduct trivalent chromium plating, and 2 facilities conduct both chromic acid anodizing and hard hexavalent chromium plating. The majority of the plating and anodizing facilities subject to PAR 1469 conduct hexavalent chromium plating or chromic acid anodizing. All 115 facilities are categorized using North American Industry Classification System (NAICS) code and summarizes in Appendix D of this FinalDraft

EA. Appendix D also contains the list of affected facilities and their locations within SCAQMD's jurisdiction.

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of SSAB and MDAB. The Basin, which is a subarea of SCAQMD's jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. It includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. A federal nonattainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (see Figure 1-1).

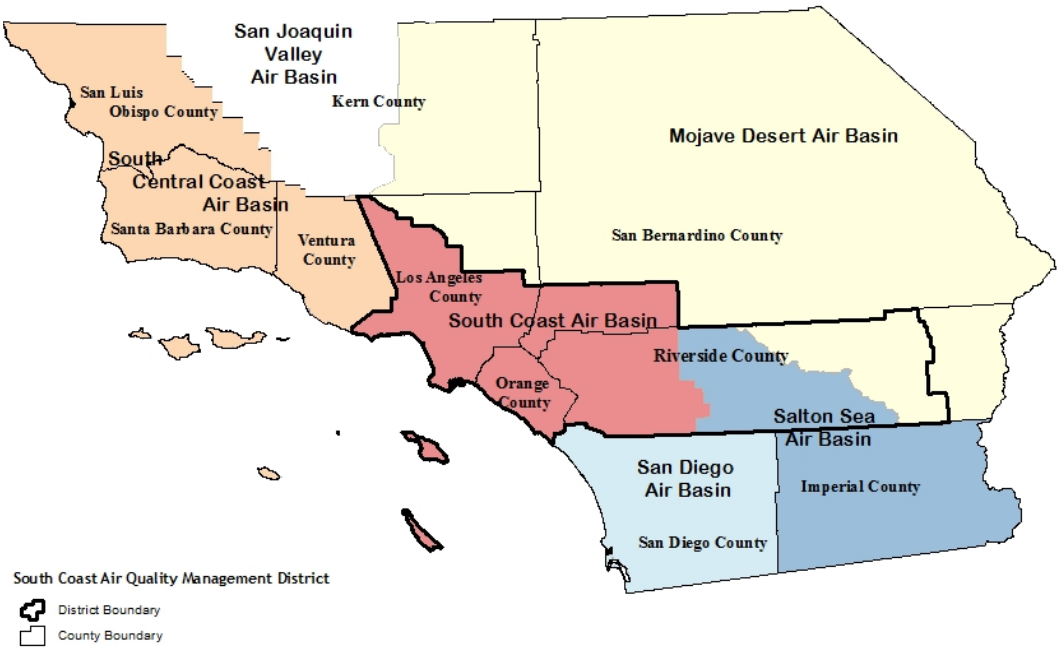


Figure 1-1
Southern California Air Basins

PROJECT BACKGROUND

Prior to the adoption of Rule 1469, chromium electroplating (hard and decorative) and chromic acid anodizing processes were originally regulated by Rule 1169 which was first adopted on June 3, 1988 to reduce hexavalent chromium emissions from these operations. However, on October 9, 1998, Rule 1169 was repealed and provisions were adopted instead in Rule 1469 which is part of Regulation XIV that focuses on reducing emissions of various types of toxics and non-criteria pollutants. In addition to facilities that perform chromium electroplating or chromic acid

anodizing operations, Rule 1469 also regulates other activities that are generally associated with chromium electroplating and chromic acid anodizing operations.

In 2015, SCAQMD staff initiated rulemaking for PAR 1469 as a result of data collected from conducting air monitoring and sampling near a chromic acid anodizing facility located in Newport Beach in Orange County. SCAQMD staff had been conducting air monitoring near the facility since 2009 and in 2012 and 2013, levels of hexavalent chromium increased. These increases triggered a series of further evaluations which identified sources within the facility as having elevated levels of hexavalent chromium emissions. As SCAQMD staff continued to conduct additional monitoring and sampling, and engineering evaluations, the following conditions were identified as contributing to the elevated hexavalent chromium levels: 1) cross-drafts in the building that housed the chromic acid anodizing process allowed emissions to flow out of the building and interfered with the collection efficiency of the air pollution control equipment; and 2) high hexavalent chromium emissions were detected from a process tank, a heated sodium dichromate seal tank, that was not currently regulated under Rule 1469. SCAQMD and the facility entered into a stipulated Order for Abatement requiring the facility to cease operating their tanks containing chromium solutions ~~shut down~~ when ambient monitors detect a rolling average exceeding a specified level of hexavalent chromium. As a result, the facility implemented changes to address their hexavalent chromium emissions. In particular, additional air pollution control equipment was installed on their chromic acid anodizing process line (including the heated sodium dichromate seal tank). Also, the facility constructed a building enclosure with negative air that was vented to air pollution control equipment. After these key improvements were implemented, the average annual concentrations of hexavalent chromium dropped steadily from 2013 to 2016. However, average emissions in 2017 slightly increased above previous years, to just below 0.4 nanograms per cubic meter (ng/m^3). This increase in hexavalent chromium emissions may have occurred as a result of construction work involving concrete demolition and removal of the rubble from the facility.

In 2015, SCAQMD rules staff began visiting other Rule 1469 facilities to get a better understanding of current operating conditions, to observe the different types of building enclosures and housekeeping practices, and to evaluate other process tanks that can also be sources of hexavalent chromium emissions similar to the heated sodium dichromate seal tank. About the same time as the rule development process for PAR 1469, SCAQMD staff was separately conducting air monitoring in the city of Paramount to investigate potential sources of hexavalent chromium near a metal forging facility. In October 2016, SCAQMD expanded its monitoring network in Paramount and began monitoring near a chromic acid anodizing facility. Initial results of hexavalent chromium emissions were measured at 26 ng/m3 near that facility. Additional monitoring and sampling were conducted and as was observed with the facility, a heated sodium dichromate seal tank combined with cross-drafts allowing emissions to flow directly out of the facility's building were some of the sources that contributed to the high measurements of hexavalent chromium.

The combination of data from conducting ambient monitoring, sampling, and emissions testing indicated that the application of heat and/or air sparging can cause hexavalent chromium emissions from the tank and emissions will increase as the concentration of hexavalent chromium in the tank and the temperature increases. Since these activities were not previously known to be sources of hexavalent chromium emissions, PAR 1469 now addresses these tanks and includes requirements

to help minimize the release of fugitive emissions from these operations such as building enclosures, best management practices, and housekeeping provisions. PAR 1469 also has provisions to ensure continuous proper operation of point source air pollution control equipment and contingency provisions to add air pollution control equipment for a building enclosure for any facility that has repeated non-compliance of the point source emission requirements.

PROJECT DESCRIPTION

The purpose of PAR 1469 is to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 proposes new requirements for hexavalent chromium ~~-containing~~ tanks, such as heated sodium dichromate seal tanks, that are currently not regulated under Rule 1469. The proposal requires the installation of air pollution control equipment for hexavalent chromium ~~-containing~~ tanks that have the potential to emit hexavalent chromium. In addition, PAR 1469 includes requirements to conduct periodic source testing, to conduct parameter monitoring of air pollution control equipment, to operate all hexavalent chromium ~~-containing~~ tanks in building enclosures, and to employ additional housekeeping and best management practices for all hexavalent chromium ~~-containing~~ tanks. Proposed requirements include triggered provisions for installing a permanent total enclosure vented to air pollution control equipment in the event of non-compliance with specific source testing or monitoring requirements. PAR 1469 also revises existing requirements to reduce surface tension limits that prohibit the use of chemical fume suppressants (CFS) that contain perfluorooctane sulfonic acid in order to be consistent with the United States Environmental Protection Agency (U.S. EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP)[8] for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks. SCAQMD staff is incorporating provisions to encourage use of alternative plating and anodizing techniques that minimize or eliminate the use of hexavalent chromium ~~and~~ including provisions for phasing out the use <u>of</u> a revised certification process by SCAQMD and the California Air Resources Board (CARB) for certain chemicals that are used in CFS that have toxicity concerns.

The following is a detailed summary of the key elements contained in PAR 1469. A draft of PAR 1469 can be found in Appendix A.

<u>Purpose – subdivision (a)</u>

New subdivision (a) has been added to clarify that PAR 1469 is designed to reduce hexavalent chromium emissions from facilities that perform chromium electroplating or chromic acid anodizing operations, and other activities that are generally associated with chromium electroplating and chromic acid anodizing operations.

<u>Applicability – subdivision (b)</u>

Subdivision (b) has been revised to clarify that PAR 1469 applies to the owner or operator of any facility performing chromium electroplating or chromic acid anodizing by removing references to SCAQMD Rules 1401 and 1401.1 and chromium electroplating/chromic acid anodizing kits.

[8] National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63 Subpart N. https://www.epa.gov/stationary-sources-air-pollution/national-emission-standards-hazardous-air-pollutants-neshap-9

Definitions – subdivision (c)

Subdivision (c) removes or modifies existing definitions and adds new definitions of terms used throughout PAR 1469:

- ADD-ON AIR POLLUTION CONTROL DEVICE (modified)
- ADD-ON NON-VENTILATED AIR POLLUTION CONTROL DEVICE (new)
- AIR POLLUTION CONTROL TECHNIQUE (modified)
- APPROVED CLEANING METHOD (new)
- ASSOCIATED PROCESS TANK (new)
- BARRIER (new)
- BREAKDOWN (removed)
- BUILDING ENCLOSURE (new)
- ~~EARLY EDUCATION CENTER (new)~~
- ENCLOSURE OPENING (new)
- ~~FREEBOARD HEIGHT (new)~~
- FUGITIVE EMISSIONS (modified)
- HIGH EFFICIENCY PARTICULATE ARRESTORS (HEPA) (modified)
- ~~HIGH EFFICIENCY PARTICULATE ARRESTOR (~~HEPA~~)~~ VACUUM (new)
- LOW PRESSURE SPRAY NOZZLE (new)
- MECHANICAL FUME SUPPRESSANT (modified)
- METAL REMOVAL FLUID (new)
- PERFLUROOCTANE SULFONIC ACID (PFOS) BASED FUME SUPPRESSANT (new)
- PERMANENT TOTAL ENCLOSURE (new)
- SCHOOL (modified)
- STALAGMOMETER (modified)
- TANK PROCESS AREA (new)
- TENSIOMETER (modified)
- TIER I HEXAVALENT CHROMIUM~~-CONTAINING~~ TANK (new)
- TIER II HEXAVALENT CHROMIUM TANK (new)
- TIER III HEXAVALENT CHROMIUM TANK (new)
- WEEKLY (modified)

The new definitions for Tier I~~, and~~ Tier II, and Tier III Hexavalent Chromium~~-Containing~~ Tanks are necessary as many components of PAR 1469 are designed to address previously unregulated tanks that have the potential for hexavalent chromium emissions.

As explained previously, SCAQMD staff sampled a number of tanks and the results showed that some tanks contained high levels of hexavalent chromium even though they are not currently regulated by Rule 1469. ~~To be consistent with the federal NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks,~~ SCAQMD staff selected a limit of 1,000 ppm hexavalent chromium because it is consistent with the federal NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks that are required to meet specific housekeeping practices.

The definition for a Tier I tank is as follows:

- TIER I HEXAVALENT CHROMIUM ~~CONTAINING~~ TANK means a tank permitted as containing a hexavalent chromium concentration of 1,000 parts per million (ppm) or greater and is not a ~~TIER II HEXAVELENT CHROMIUM CONTAINING TANK~~ Tier II or Tier III Hexavalent Chromium Tank.

There is also a greater concern about any hexavalent chromium ~~containing~~ tank that also operates under heated, air sparged, or electrolytic conditions because hexavalent chromium emissions can be generated outside of the tank. In particular, high concentrations of hexavalent chromium in solution were found in heated sodium dichromate seal tanks and chrome stripping tanks.

Based on SCAQMD sampling and testing data, tanks containing any concentration of hexavalent chromium that are operated at or below 140 degrees Fahrenheit (^{o}F) have not been shown to exhibit elevated hexavalent chromium emissions. ~~Additional sampling and testing data has demonstrated a correlation between temperature and concentration. Elevated temperatures correlated with hexavalent chromium emissions at lower concentrations. Therefore, additional criteria are applied when determining a Tier II Hexavalent Chromium Containing Tank, as outlined in the following definition:~~

- TIER II HEXAVALENT CHROMIUM ~~CONTAINING~~ TANK means a tank that is operated or permitted to operate by SCAQMD within the range and a corresponding hexavalent chromium concentration ~~containing hexavalent chromium that meets any of the following with the corresponding hexavalent chromium concentrations in~~ specified in Table 1-1:

Table 1-1
Tier II Hexavalent Chromium ~~Containing~~ Tank Parameters

Temperature (° F)	Tier II Tank Concentration (ppm)
≥ 140 to <145	≥ 5,200 to < 10,400
≥ 145 to <150	≥ 2,700 to < 5,500
≥ 150 to <155	≥ 1,400 to < 2,900
≥ 155 to <160	≥ 700 to < 1,600
≥ 160 to <165	≥ 400 to < 800
≥ 165 to <170	≥ 180 to < 400
≥170	≥ 100 to < 200

- TIER III HEXAVALENT CHROMIUM TANK means a tank that is operated or permitted to operate by the SCAQMD within the range of temperatures and corresponding hexavalent chromium concentrations specified in Table 1-2; or
    - Contains a hexavalent chromium concentration greater than 1,000 ppm, and uses air sparging as an agitation method or is electrolytic; or
    - Is a hexavalent chromium electroplating or chromic acid anodizing tank.

Table 1-2
Tier III Hexavalent Chromium ~~Containing~~ Tank Parameters

Temperature (° F)	Tier III Tank Concentration (ppm)
≥ 140 to <145	≥ 10,400
≥ 145 to <150	≥ 5,500
≥ 150 to <155	≥ 2,900
≥ 155 to <160	≥ 1,600
≥ 160 to <165	≥ 800
≥ 165 to <170	≥ 400
≥170	≥ 200

~~**Table 1-1**~~
~~**Tier II Hexavalent Chromium-Containing Tank Definitions**~~

~~Tank Condition~~	~~Hexavalent Chromium Concentration~~
~~Operating temperature between 140°F-150°F~~	~~>1,500 ppm~~
~~Operating temperature between 150°F-160°F~~	~~>500 ppm~~
~~Operating temperature greater than 160°F~~	~~>100 ppm~~
~~Uses air sparging as an agitation method~~	~~>1,000 ppm~~
~~Electrolytic~~	~~>1,000 ppm~~

~~Facilities that conduct chromic acid anodizing may have some tanks that would be considered Tier II tanks based on the concentration of hexavalent chromium and air sparging being the agitation method. However, industry representatives indicated that these tanks would be converted to use mechanical agitation, such as eductors. By modifying the agitation method, the tanks would not be considered a Tier II tank and therefore not require add-on controls~~

Requirements – Subdivision (d)

Subdivision (d) contains the core requirements of PAR 1469. Paragraph (d)(1) has been revised to change the requirement for a separate meter to be hardwired for each hexavalent chromium electroplating or chromic acid anodizing tank instead of for each rectifier.

Paragraph (d)(2) has been revised to clarify two terms: 1) electroplating is referring to chromium electroplating; and 2) anodizing tank is referring to a chromic acid anodizing tank.

New paragraph (d)(4) has been added to require any Tier I, ~~or~~ Tier II, or Tier III Hexavalent Chromium ~~Containing~~ Tank, or any associated process tank to be operated within a building enclosure beginning 90 days after the date of rule adoption. In particular, Tier I, Tier II, or Tier III Hexavalent Chromium Tanks will be required to operate within a building enclosure that meets the definition of "Building Enclosure" which is a permanent building or physical structure, or portion of a building, enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off), with limited openings to allow access for people, vehicles,

equipment, or parts. A room within a building enclosure that is completely enclosed with a floor, walls, and a roof would also meet this definition. ~~existing before rule adoption that undergoes specific modifications to maintain a freeboard height within the range as specified in the most current edition (i.e. at the time the permit application was deemed complete by the SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists. A modification under this provision includes a dimensional change to the tank. Freeboard height is the vertical distance from the tank bath surface, including liquid or foam, to the lip of the tank with parts and equipment submerged in the tank.~~

Paragraph (d)(5) has been added to require any Tier II or Tier III Hexavalent Chromium Tank to be operated within a building enclosure that meets the requirements of subdivision (e). Under this provision, a Tier I Hexavalent Chromium Tanks would not be required to operate within a building enclosure that meets the additional requirements under subdivision (e) such as limitations on enclosure openings.

Requirements for Building Enclosures for Tier II or Tier III Hexavalent Chromium Tanks – subdivision (e)

New subdivision (e) has been added to establish requirements for operating any Tier II or Tier III Hexavalent Chromium ~~Containing~~ Tanks and associated process tanks within a building enclosure that meets specific requirements under paragraphs (e)(1) through (e)(9) beginning ~~90~~ 180 days after date of rule adoption. While Tier I Hexavalent Chromium Tanks are required to operate within a building enclosure, the building enclosure where a Tier I Hexavalent Chromium Tank is operated is not required to meet the additional requirements in subdivision (e) provided there is no Tier II or Tier III Hexavalent Chromium Tank ~~tank~~ in the same building enclosure. The following summarizes the requirements for building enclosures for Tier II and III Hexavalent Chromium Tanks~~Building enclosures shall meet the following requirements~~:

- New paragraph (e)(1) establishes the requirements for enclosure openings that are allowed for a building enclosure.~~:~~ Under this paragraph, ~~T~~the combined area of all building enclosure openings, including any roof openings for passage of equipment or vents through which fugitive hexavalent chromium emissions can escape from the building enclosure, shall not exceed ~~three percent~~ 3.5% of the building enclosure envelope, which is calculated as the total surface area of the building enclosure's exterior walls, floor and horizontal projection of the roof on the ground. This requirement is based on U.S. EPA's Method 204 for Permanent Total Enclosures; however, unlike Method 204, building enclosures under PAR 1469 are not required to operate under negative air conditions. As such, even though the size allowance as required by Method 204 for openings in the building enclosure is 5%, to compensate for the absence of venting a building enclosure to an add-on air pollution control device, PAR 1469 proposes a size allowance of 3.5% instead. Information on calculations for the building enclosure envelope, including locations and dimensions of openings counted toward the ~~three percent~~3.5% allowance are required to be provided in the compliance status reports pursuant to paragraphs (p)(2) and (p)(3) (see description under subdivision (p)).

  PAR 1469 identifies the type of methods that can be used in determining what comprises a building's opening and the amount that should be counted towards the 3.5% enclosure opening allowance. As specified in paragraph (e)(1), openings that close or use one or more of the

following methods for the enclosure opening shall not be counted toward the combined area of all enclosure openings:

- ✓ Door that automatically closes;
- ✓ Overlapping plastic strip curtains;
- ✓ Vestibule;
- ✓ Airlock system; or
- ✓ Alternate method to minimize the release of fugitive emissions from the building enclosure that the owner or operator can demonstrate to the Executive Officer an equivalent or more effective method(s) to minimize the movement of air within the building enclosure. This provision allows the owner or operator to develop other low-cost methods that were not identified during the rulemaking.

- New paragraph (e)(2) establishes requirements for eliminating or minimizing cross-draft that can occur when openings at opposite ends of building enclosure are open. Under this paragraph, the owner or operator are required to ~~E~~ensure that any building enclosure opening that is on opposite ends of the building enclosure where air movement can pass through are not simultaneously open except during the passage of vehicles, equipment or people, not to exceed two hours, by either closing or using one or more of the methods for the enclosure opening(s) on one of the opposite ends of the building enclosure specified in subparagraphs (e)(1)(A) through (e)(1)(E). To meet this requirement, the use of a barrier, such as large piece of equipment, a wall, or any other type of barrier that restricts air movement from passing through the building enclosure would also be allowed. ~~when one or more of the following methods are implemented:~~

  - ~~✓ Automated roll-up door;~~
  - ~~✓ Overlapping plastic strip curtain;~~
  - ~~✓ Vestibule doors;~~
  - ~~✓ Airlock system; or~~
  - ~~✓ Alternative method to minimize the release of fugitive hexavalent chromium emissions from the building enclosure that the owner or operating can demonstrate to the Executive Officer as (an) equivalent or more effective method(s) to minimize the movement of air within the building enclosure.~~

- New paragraph (e)(3) establishes additional requirements for enclosure openings that are facing a sensitive receptor or school.~~:~~ Except for the movement of vehicles, equipment or people, this paragraph requires any building enclosure opening to be closed or minimized by using any of the methods listed under paragraph (e)(1), ~~(or use any of the methods listed above)~~ that directly opens towards ~~a~~the nearest: 1) sensitive receptor, with the exception of a school, ~~or early education center~~ that is located within 100 feet, as measured from the property line of the sensitive receptor~~, school, or early education center~~ to the building enclosure opening.~~:~~; and 2) school that is located within 1,000 feet, as measured from the property line of the school or to the building enclosure opening. Further, if there are multiple sensitive receptors that are located within 100 feet of an enclosure opening, only the nearest enclosure opening would be required to be closed. Similarly, if there are multiple schools that are located within 1,000 feet of an enclosure opening, only the nearest enclosure opening to the school would be required

to be closed. The maximum enclosure openings that would be required to be closed under this paragraph would be two.

- New paragraph (e)(4)~~:~~ establishes requirements for enclosure openings in a roof. Specifically, the owner or operator is required to ~~E~~ensure that all roof openings that are located within 15 feet from the edge of any Tier II or Tier III Hexavalent Chromium ~~Containing~~ Tank are closed, except for roof openings that are used to allow access to equipment or parts, ~~or~~ provide intake air for a building enclosure that does not create air velocities that impact the collection efficiency of a ventilation system for an add-on air pollution control device, or roof openings that are equipped with a HEPA filter or other air pollution control device. It should be noted that the proposed definition of enclosure opening in paragraph (c)(22) does not include stacks, ducts, and openings to accommodate stacks and ducts.

- ~~New paragraph (e)(5): Prohibit operation of any device located on the roof of any building enclosure that pulls air from the building enclosure to the outdoor air unless the air is vented to an add-on air pollution control device that is fitted with HEPA filters.~~

- ~~New paragraph (e)(6): Inspect any building enclosure at least once a calendar month for breaks or deterioration that could cause or result in fugitive emissions.~~

- New paragraph (e)~~(7)~~(5) establishes requirements when there is a breach in a building enclosure that is located near a Tier II or Tier III Hexavalent Chromium tank.~~:~~ A breach can be a break, rupture, crack, hole, large gap in the building enclosure. Under this paragraph, the owner or operator is required to ~~R~~repair any ~~breaks or deterioration~~ breach in a building that is located within 15 feet of the edge of any Tier II or III tank ~~that could or results in fugitive hexavalent chromium emissions from any building enclosure~~ within 72 hours of discovery. ~~An extension may be granted if the owner or operator can substantiate that the repair will take longer than that 72 hours and temporary measures are implemented that ensure no fugitive emissions results from a break.~~ The provision establishes who to call and the procedures for a time extension to repair the breach, if needed.

- ~~New paragraph (e)(8): PAR 1469 requires that a building enclosure design should not conflict with any other agency's requirements, and instead should be constructed in a manner that is compliant with all agencies. This may require the owner or operator of a facility to install additional equipment or modify the existing structure. If any other agency requirements conflict, the owner or operator shall notify the Executive Officer in writing within 30 days of rule adoption to explain which SCAQMD building enclosure requirements the facility cannot comply with, and the alternatives that the facility would implement to minimize the release of fugitive emissions.~~

- New paragraph (e)(6) establishes requirements for notifying the Executive Officer and submitting a building enclosure compliance plan in the event that the owner or operator is unable to modify a building enclosure to comply with the requirements in paragraphs (e)(1) through (e)(4) because of conflicts with safety or local building requirements such as Cal-OSHA/Federal OSHA's requirements, or other municipal codes or agency requirements related directly to worker safety subject to Executive Officer approval.

- New paragraph (e)(7) establishes the procedures for the notification of approval or disapproval of and subsequent revisions to the Building Enclosure Compliance Plan submitted pursuant to paragraph (e)(6).~~New paragraph (e)(9):~~ Under new paragraph (e)(8) ~~T~~the owner or operator will have 90 days upon receiving approval from the Executive Officer to implement the approved alternative compliance measures. The owner or operator of a facility that implements and maintains the approved alternative compliance measures shall have met the applicable requirements specified in paragraphs (e)(1) through (e)(4~~5~~).

- New paragraph (e)(9) proposes to allow an owner or operator that has submitted an application to install an add-on air pollution control device to control either a Tier II or Tier III Hexavalent Chromium Tank(s) to be exempt from paragraphs (e)(1) through (e)(4) until such time that the add-on air pollution control device is installed.

Housekeeping Requirements – subdivision (f)

The housekeeping requirements that were originally in paragraph (d)(4) have been moved to its own dedicated subdivision (f) and clarified to apply to chromium electroplating and chromic acid anodizing operations. Amended provisions include the following:

- Revised paragraph (f)(3) requires the use of an approved cleaning method as defined in paragraph (c)(6) for conducting cleaning. Paragraph (f)(3) also clarifies that a drip tray or other containment device can be used to capture any liquid or solid material containing hexavalent chromium.

- Revised paragraph (f)(4) clarifies that approved cleaning method should be used when cleaning surfaces within certain areas and modifies the frequency of conducting cleaning to occur weekly instead of "at least once every seven days."~~requires the use of an approved cleaning method to clean surfaces within the enclosed storage area, open floor area, walkways around the Tier I or Tier II Hexavalent Chromium Containing Tank(s), or any surface potentially contaminated with hexavalent chromium or surfaces that potentially accumulate dust at least daily.~~

- Revised paragraph (f)(5) requires ~~that~~ containers holding chromium or chromium-containing waste material shall be kept closed at all times except when filling or emptying.

- Paragraph (f)(6) ~~-~~requires that on each day when buffing, grinding, or polishing activities occur, the owner or operator shall clean floors within 20 feet of a buffing, grinding, or polishing workstation within one hour of the end of the last operating shift of when buffing, grinding, or polishing are conducted. The requirements of this paragraph shall not apply to owner or operators that utilize a metal removal fluid to control to buffing, grinding, or polishing operations. ~~has been added to address the cleaning requirements in the buffing, grinding, or polishing area. On each day when buffing, grinding, or polishing, the owner or operator shall clean floors within 20 feet of a buffing, grinding, or polishing workstation and any entrance/exit point within one hour of the end of the last operating shift of when buffing, grinding, or polishing are conducted. Previous requirements pertaining to establishing a physical barrier between buffing, grinding, or polishing and where chromium electroplating or chromic acid anodizing have been moved to paragraph (g)(6) in subdivision (g) - Best Management Practices. Previous requirements pertaining to compressed air cleaning have been moved to paragraph (g)(7) in subdivision (g) - Best Management Practices.~~

- New paragraph (f)(7) has been added to require owners or operators to remove any flooring in the tank process areas that is made of fabric or fibrous material such as carpets or rugs where hexavalent chromium materials can be trapped. Examples of acceptable flooring material are wooden floor boards and other solid material that can be cleaned and maintained.

- New paragraph (f)(8) has been added to require owners or operators to prevent the generation of fugitive emissions ~~chromium~~ prior to and during the cutting of roof surfaces by implementing the following requirements ~~the installation, modification, or removal of any add-on air pollution control device~~:

    - Prior to being ~~disturbed~~ cut, roof surfaces shall be cleaned by using a HEPA vacuum; and
    - To minimize fugitive emissions during cutting activities, method(s) such as a temporary enclosure and/or HEPA vacuuming shall be used; and
    - ~~Any and all roof surfaces that remain stained after completion of the initial roof cleaning shall be treated by encapsulation or removed through controlled demolition;~~
    - ~~All construction and demolition activities shall be conducted within a temporary total enclosure that is vented to HEPA filtration;~~
    - ~~All waste material generated by abatement, construction, or demolition shall be disposed as hazardous waste; and~~
    - Notify the District at least 48 hours prior to the commencement of any work being done by calling 1-800-CUT-SMOG.

    - New paragraph (f)(9) requires that if a HEPA vacuum is used to comply with housekeeping provisions of subdivision (f), that the HEPA filter is free of tears, fractures, holes or other types of damage, and securely latched and properly situated in the vacuum to prevent air leakage from the filtration system.

Previous requirements pertaining to establishing a physical barrier between buffing, grinding, or polishing and where chromium electroplating or chromic acid anodizing have been moved from subparagraph (c)(4)(F) to subdivision (g) - Best Management Practices. Previous requirements pertaining to compressed air cleaning in subparagraph (c)(4)(G) have also been moved to subdivision (g) - Best Management Practices.

Best Management Practices – subdivision (g)

New subdivision (g) has been added which establishes Best Management Practices that prescribe how an owner or operator shall conduct chromium electroplating or chromic acid anodizing and other ancillary operations to prevent the release or generation of fugitive emissions.

Revised paragraph (g)(1) clarifies the requirements for minimizing drag-out for automated and non-automated lines.~~has been expanded to minimize the dragout occurring outside of tanks conducting chromium electroplating or chromic acid anodizing to include Tier I and Tier II Hexavalent Chromium-Containing Tanks.~~ For facilities with automated lines, containment equipment other than drip trays may be utilized to prevent hexavalent chromium-containing liquid from falling through the space between tanks. Additional requirements ~~additionally~~ to clean the residue on the drip tray or other ~~equipment~~ devices used for containment are also included. For facilities without automated lines, paragraph (g)(1) clarifies that parts need to be handled in a

manner that does not cause hexavalent chromium-containing liquid to ~~drip~~ drop on the floor~~outside of the tank unless the liquid is captured by a drip tray or other containment device~~.

New paragraph (g)(2) prohibits owners or operators from spray rinsing parts or equipment that were previously in a Tier II or Tier III Hexavalent Chromium Tank, unless the part or equipment are fully lowered inside a tank where the overspray and all of the liquid is captured inside the tank. The requirements in paragraph (g)(2) will go into effect 90 days after date of adoption.~~adds requirements for the spray rinse of parts or equipment. Owners or operators may spray rinse the part or equipment if they are fully lowered inside a tank where the overspray and all of the liquid is captured inside the tank.~~ If an owner or operator chooses to spray rinse above a process tank, they must ensure that any hexavalent chromium-containing liquid is captured and returned to the tank, and:

- Install splash guard(s) at the tank that is free of holes, tears or openings. Splash guards shall be cleaned daily, such that there is no accumulation of visible dust or residue potentially contaminated with hexavalent chromium; or
- For tanks located within a process line utilizing an overhead crane system that would be restricted by the installation of splash guards, a low pressure spray nozzle may be used instead and operated in a matter that water flows off of the part or equipment.

Effective 60 days after the date of adoption, new paragraph (g)(3) requires owners or operators to clearly label each tank within the tank process area with a tank number or other identifier, bath contents, maximum concentration (ppm) of hexavalent chromium, operating temperature range, and any agitation method used, and designation of whether it is a Tier I, Tier II, or Tier III Hexavalent Chromium Tank. Tank labeling will help operators as well as SCAQMD inspectors identify Tier I, Tier II, and Tier III Hexavalent Chromium Tanks and to ensure the appropriate operating conditions are maintained.

~~New paragraph (g)(4) requires that the owner or operator of a Tier II Hexavalent Chromium-Containing Tank that is subject to paragraph (d)(4), shall make inch markings on the interior of the tank, including markings to indicate the acceptable freeboard height range as specified in the most current edition (i.e. at the time the permit application was deemed complete by the SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by the American Conference of Governmental Industrial Hygienists from the lip of the tank.~~

Effective 90 days after the date of adoption, new ~~P~~paragraph (g)(~~5~~4) requires all buffing, grinding, and polishing operations to take place within a building enclosure.

New paragraph (g)(5) requires the relocation of existing requirement to have a barrier that separates the buffing, grinding, or polishing area within a facility from the chromium electroplating or chromic acid anodizing operation. ~~relocated from the housekeeping requirements that were originally in paragraph (d)(4) and requires all buffing, grinding, and polishing operations to take place within a building enclosure~~.

~~Paragraph (g)(6) was relocated from the housekeeping requirements that were originally in paragraph (d)(4) and requires a barrier to be installed that separates the buffing, grinding, or~~

~~polishing area within a facility from the chromium electroplating or chromic acid anodizing operation.~~

New paragraph (g)(~~7~~6) prohibits compressed air cleaning or drying within 15 feet of all Tier II or Tier III Hexavalent Chromium Tank(s) ~~any chromium electroplating or chromic acid anodizing operation~~ unless a barrier separates those areas from compressed air cleaning or drying operations, or the compressed air cleaning or drying is conducted in a permanent total enclosure. A tank wall may function as a barrier as long as parts are compressed air cleaned or dried below the lip of the tank.

Add-On Air Pollution Control Devices and Emission Standards – subdivision (h)

PAR 1469 creates ~~a~~ new subdivision (h) which contains requirements regarding add-on air pollution control devices and emission standards.

Paragraph (h)(1) contains an existing prohibition for removing air pollution control equipment unless it is replaced with an air pollution control technique that meets the requirements in PAR 1469, Table 1 – Hexavalent Chromium Emission Limits for Hexavalent Hard and Decorative Chromium Electroplating and Chromic Acid Anodizing Tanks.

Sub~~P~~paragraph (h)(2)(A) ~~now~~ consolidates the emission standards and control requirements for existing, modified, and new hexavalent hard and decorative chromium electroplating and chromic acid anodizing facilities, which has been reproduced in Table 1-3. Additionally, all effective dates for notification to the Executive Officer, emission standards, and control requirements were removed as these dates are now past and in full effect.

Table 1-3
Hexavalent Chromium Emission Limits for Existing Tanks

Facility Type	Distance to Sensitive Receptor (~~meters~~feet)	Annual Permitted Amp-Hrs	Emission Limit (mg/amp-hr)	Required Air Pollution Control Technique
Existing Facility	≤ 330[1] ~~< 100~~	≤ 20,000	0.01	Use of Certified Chemical Fume Suppressant at or below the certified surface tension[3]. ~~CFS. Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr.~~
Existing Facility	≤ 330[1] ~~< 100~~	> 20,000	0.0015[2]	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Existing Facility	≤ 330[1] ~~> 100~~	≤ 50,000	0.01	Use of Certified Cemical Fume Suppressant at or below the certified surface tension[3]. ~~CFS. Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr.~~
Existing Facility	≤ 330[1] ~~> 100~~	> 50,000 and ≤ 500,000	0.0015[2]	Use of an air pollution control technique that controls hexavalent chromium. ~~approved by the Executive Officer.~~
Existing Facility	≤ 330[1] ~~> 100~~	> 500,000	0.0015[2]	Add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s).
Modified Facility	Any	Any	0.0015[2]	Using an add-on air pollution control device(s), or an approved alternative method pursuant to subdivision (i). ~~to control hexavalent chromium emissions.~~
New Facility	Any	Any	0.0011[2]	Using a HEPA add-on air pollution control device, or an approved alternative method pursuant to subdivision (i). ~~to control hexavalent chromium emissions.~~

[1] Distance shall be measured, rounded to the nearest foot, from the edge of the chromium electroplating or chromic acid anodizing tank nearest the sensitive receptor (for facilities without add-on air pollution control devices), or from the stack or centroid of stacks (for facilities with add-on air pollution control devices), to the property line of the nearest sensitive receptor. The symbol < means less than or equal to. The symbol > means greater than.

[2] As demonstrated by source test requirements under subdivision (k).

[3] Alternatively, a facility may install an add-on air pollution control device(s) or add-on non-ventilated air pollution control device(s) that controls hexavalent chromium emissions to below 0.0015 mg/amp-hr as demonstrated through source test requirements under subdivision (k).

Subparagraph (h)(2)(B~~b~~) retains the siting requirements for New Chromium Electroplating and Chromic Acid Anodizing Facilities.

All requirements to conduct a facility-wide screening health risk assessment have been removed in this subdivision because these assessments are currently addressed by SCAQMD's ongoing program for new source review of toxics (Rule 1401 and 1401.1) and implementation of AB 2588 (Rule 1402).

Paragraph (h)(3) applies to decorative chromium electroplating processes using a trivalent chromium bath. PAR 1469 ~~removes~~ revises the requirement to utilize a certified ~~CFS~~ chemical fume suppressant to remove the word "certified," as certification at the ~~federal and~~ state level is only ~~require this of~~ for hexavalent chromium electroplating and chromic acid anodizing operations.~~,~~ H~~h~~owever, paragraph (h)(3) adds that CFS cannot contain PFOS for consistency with the NESHAP for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks.

Emission Controls and Standards for Tier III Hexavalent Chromium ~~Containing~~ Tanks

Paragraph (h)(4) adds new requirements for Tier III Hexavalent-Chromium ~~Containing~~ Tanks that are not chromium electroplating or chromic acid anodizing tanks. These tanks are required to be vented to an add-on air pollution control device or an approved alternative compliance method pursuant to subdivision (i). These tanks must comply with the following specific hexavalent chromium emission limits ~~and must meet the following standards~~:

- For existing or modified facilities, 0.0015 mg/amp-hr, if any tank(s) ~~that are~~ vented to an air pollution control device are electrolytic; or
- For new facilities, 0.0011 mg/amp-hr, if any tank(s) ~~that are~~ vented to an air pollution control device are electrolytic; or
- 0.20 mg/hr, if all tanks that are vented to an add-on air pollution control device are not electrolytic and the ventilation system has a maximum exhaust rate of 5,000 cfm or less; or
- 0.004 mg/hr-ft^2, with the applicable surface area based on the tank surface area of all Tier III Hexavalent Chromium ~~Containing~~ Tank(s) and other tanks required to be vented to an add-on air pollution control device with a SCAQMD Permit to Operate, provided all tanks are not electrolytic, if the ventilation system has a maximum exhaust rate of greater than 5,000 cfm; or
- ~~0.004 mg/hr-ft^2, with the applicable surface area based on the tank surface area of all Tier II Hexavalent Chromium Containing Tank(s) and other tanks required to be controlled by SCAQMD Permits to Operate vented to an add-on air pollution control device, if all tanks that are vented to the add-on air pollution control device are located in a permanent total enclosure.~~

For existing and new facilities with non-chromium electroplating or chromic acid anodizing Tier III tanks that are electrolytic, the emission standard is consistent with the emission limits in Table 1-3, for chromium electroplating and chromic acid anodizing tanks.

The emission limit for non-electrolytic tanks is based on review of 80 source tests conducted on existing add-on air pollution control equipment venting chromium electroplating and chromic acid anodizing tanks. The source tests were conducted from 1999 through 2016. Of the 80 source tests, approximately 20 source tests were not used in the analysis as they either vented multiple electroplating or anodizing tanks or the source test was conducted with very high amperes that were not representative of the normal operations. The average emission rate of the tanks as found by ~~for~~ the remaining source tests was 0.18 mg/hr. Additionally, due to the fact that uncontrolled hexavalent chromium emissions from non-electrolytic tanks are typically much lower than that of

electroplating and anodizing tanks, staff believes that these non-chromium electroplating or chromic acid anodizing Tier IIIŁ tanks can meet an emission limit of 0.20 mg/hr.

Subparagraph (h)(4)(B) establishes the compliance schedule for submitting permit applications for add-on pollution control devices for Tier III Tanks. For Tier IIIŁ Hexavalent Chromium ~~Containing~~ Tanks that are in operation prior to date of rule adoption, the owner or operator shall submit a permit application to the SCAQMD for the add-on air pollution control devices based on the primary electrolytic operation conducted at the facility as specified below in Table 1-4.

Table 1-4
Permit Application Submittal Schedule for Add-On Air Pollution Control Device

Electrolytic Process at the Facility	Compliance Date for Permit Application Submittal for Add-on Air Pollution Control Device
Chromic Acid Anodizing	[180 Days after Date of Adoption]
Hard Chromium Electroplating	[365 Days after Date of Adoption]
Decorative Chromium Electroplating	[545 Days after Date of Adoption]

If a facility has multiple chromium electrolytic processes occurring, the earliest compliance date would apply to the facility.

~~The add-on air pollution control device shall be installed and operated no later than one year after a Permit to Construct is issued.~~ A source test is required to be conducted prior to the issuance of a SCAQMD Permit to Operate the add-on air pollution controls. Also, ~~B~~beginning no later than 30 days after rule adoption until the subject add-on air pollution control device is installed, the owner or operator is required to cover the subject tank no later than 30 minutes after ceasing operation of the tank. Tank covers are to be free of holes, tears, or gaps and handled in a manner that does not lead to fugitive emissions.

Subparagraph (h)(4)(C) establishes the compliance dates that an owner or operator a facility is required to install an add-on air pollution control device, implement an alternative compliance method or Hexavalent Chromium Phase-Out Plan to meet the hexavalent chromium emission limits specified in subparagraph (h)(4)(A). The owner or operator of a facility is required to install an add-on air pollution control device to meet the requirements under subparagraph (h)(4)(A) no later than 12 months after a Permit to Construct for the add-on air pollution control device has been issued by the Executive Officer. If an owner or operator elects to meet the requirements of (h)(4)(A) by implementing an approved alternative compliance method the owner or operator shall comply with the timeframe specified in the approved alternative compliance method. Further, if an owner or operator elects to phase out the use of hexavalent chromium in a chromium electroplating or chromic acid anodizing tank the approved Hexavalent Chromium Phase-Out Plan shall be implemented no later than two years after it is approved by the Executive Officer.

Under subparagraph (h)(4)(D), ~~O~~owners or operators shall not be subject to the requirements of venting a Tier IIIŁ Hexavalent Chromium ~~Containing~~ Tank to an add-on air pollution control device if the uncontrolled hexavalent chromium emission rate is less than 0.2 mg/hr ~~the applicable~~

~~emission rate limit of subparagraph (h)(4)(A)~~, as demonstrated by a SCAQMD-approved source test conducted pursuant to the Technical Guidance Document for *Measurement of Hexavalent Chromium Emissions from Chromium Plating and Chromic Acid Anodizing Operations for Certification of Wetting Agent Chemical Mist Suppressant Subject to SCAQMD Rule 1469.*

Effective 90 days after the date of rule adoption, new paragraph (h)(5) requires Tier II Hexavalent Chromium Tanks to utilize a tank cover, mechanical fume suppressant, or other method approved by the Executive Officer. Alternatively, the owner or operator may meet the emission reduction requirements of a Tier III Hexavalent Chromium Tank specified in subparagraphs (h)(4)(A) and (h)(4)(B).

Paragraph (h)(~~5~~6) requires facilities to operate add-on air pollution control devices at the applicable minimum hood induced capture velocity specified in the most current edition (i.e., at the time the permit application was deemed complete by SCAQMD) of the *Industrial Ventilation, A Manual of Recommended Practice for Design*, published by American Conference of Governmental Industrial Hygienists.

Alternative Compliance Methods for New, Modified, and Existing Hexavalent Decorative and Hard Chromium Electroplating and Chromic Acid Anodizing Facilities – Subdivision (i)

Subdivision (i) retains the option for affected equipment to operate under an alternative compliance method to meet the emission limits specified in paragraphs (h)(2) and (h)(4). The alternative compliance option is available for existing, modified, and new facilities if the owner or operator can demonstrate that the alternative method(s) is enforceable, provides an equal or greater hexavalent chromium reduction, or greater risk reduction than compliance with the emission limits of specified in paragraphs (h)(2) and (h)(4). An owner or operator that elects to use an alternative method must submit an SCAQMD permit application that includes information specified in PAR 1469, Appendix 7 - Information Demonstrating an Alternative Method(s) of Compliance Pursuant to Subdivision (i).

PAR 1469 removes the following paragraphs as they refer to past interim compliance options:

- Alternative Interim Compliance Options – Inventory and Health Risk Assessment
- Alternative Interim Compliance Options – Emission Reduction Plan
- Alternative Interim Compliance Options – Maximum Installed Controls
- Alternative Interim Compliance Options – Facility wide Mass Emission Rate
- Alternative Interim Compliance Options – Alternative Standards for Existing Hexavalent Chromium Electroplating and Chromic Acid Anodizing Facilities with Low Annual Ampere Hour Usage

The alternative interim compliance options are no longer options and facilities will be required to comply with the respective requirements specified in subdivision (h). ~~Subdivision (i) does, however, retain the option to operate under an alternative compliance method as currently allowed for in Rule 1469. The alternative compliance option is available for existing, new, and modified facilities if the owner or operator can demonstrate that the alternative method(s) is enforceable,~~

~~provides an equal or greater hexavalent chromium reduction, or greater risk reduction than would direct compliance with the requirements of paragraph (h).~~

Training and Certification – Subdivision (j)

Training and certification requirements were previously located in paragraph (c)(7). This section has been moved to its own dedicated subdivision (j)~~ with no modifications to existing requirements~~.

Source Test Requirements and Test Methods – Subdivision (k)

The subdivision has been renamed and relocated from subdivision (e) to subdivision (k). Currently, Rule 1469 only requires a source test either by 2009 or during installation. ~~SCAQMD staff believes that~~ Periodic source tests are necessary to verify the continued performance of both the capture and control of hexavalent chromium emissions for add-on air pollution control devices specified in this rule. Although parameter monitoring can verify the operation of specific elements of the add-on air pollution control device, source tests allows for the comprehensive evaluation of the system.

~~The owner or operator using air pollution control techniques to comply with applicable emission limits of this rule shall conduct an initial source test to demonstrate compliance with applicable emission standards, with subsequent periodic source testing or emissions screening testing at least once every 36 months thereafter as specified in paragraph (k)(3). Failure to retest following a failed or unsuccessful source test within 60 days shall constitute a violation of this rule.~~

The current version of Rule 1469 only requires an initial source test. Paragraph (k)(1) clarifies the source test requirements for an initial source test and establishes additional requirements to conduct subsequent source tests. Periodic source testing is needed to ensure that add-on pollution control devices are operating properly and achieving the required emission limit. Subparagraph (k)(1)(A) establishes the schedule for conducting initial and subsequent source tests to meet the emission limits in paragraphs (h)(2) and (h)(4) (see PAR 1469, Table 3: Source Tests Schedule). In general, facilities with greater than 1,000,000 permitted annual amp-hours are required to source test no later than 60 months from the day of the most recent source test that demonstrates compliance with all applicable requirements and facilities with less than or equal to 1,000,000 permitted annual amp-hours are required to source test no later than 84 months from the day of the most recent source test that demonstrates compliance with all applicable requirements.

Subparagraph (k)(1)(B) allows an owner or operator to submit a written request for additional time to conduct the initial source test. This subparagraph specifies the procedures of when the Executive Officer must be notified, the information that must be included in the notification, and the timing for approval to allow use of this provision.

Subparagraph (k)(1)(C) establishes provisions that allow an owner or operator to use an existing source test that was conducted after January 1, 2015 for compliance with provision for the initial source test provided the applicable emission limits in subdivision (h) are demonstrated, operating conditions during the source test are representative of current operating conditions, and the appropriate test methods were used.

Subparagraph (k)(1)(D) establishes provisions for when a source test was conducted after January 1, 2015, but the source test was not approved. Under this subparagraph, provided the owner or operator submits the source test to the Executive Officer for approval no later than 30 days after date of adoption, the Executive Officer will review the source test to verify if it can be used and meets the same criteria subparagraph (k)(1)(C).

Subparagraph (k)(1)(E) establishes provisions that require an owner or operator that is relying on a source test conducted after January 1, 2015 under subparagraph (k)(1)(C) to conduct the first subsequent source test no later than January 1, 2024 and then follow the source testing schedule for subsequent source tests as specified in PAR 1469, Table 3: Source Tests Schedule.

Subparagraph (k)(1)(F) clarifies that an owner or operator that elects to meet an emission limit specified in a paragraph (h)(2) using a certified wetting agent chemical fume suppressant or a approved alternative to a wetting agent chemical fume suppressant shall not be subject to the requirements in subparagraph (k)(1)(A).

Paragraph (k)(2) clarifies requirements for approved test methods, test methods for add-on non-ventilated air pollution control devices, and methods to measure surface tension. Emissions testing for add-on non-ventilated air pollution control devices shall be conducted in accordance with PAR 1469, Appendix 5 – Smoke Test for Add-on Non-Ventilated Air Pollution Control Device.

Paragraph (k)(3) proposes to allow the use of emissions screening tests in lieu of conducting a source test to comply with the *subsequent* source test requirements. Subparagraph (k)(3)(A) will allow the owner or operator to conduct an emission screening of hexavalent chromium provided that the emissions screening test shall:

- consist of one run to evaluate the capture and control of hexavalent chromium emissions;
- follow a source test protocol approved by Executive Officer; and
- be representative of the operating conditions during the most recent source test.

Subparagraph (k)(3)(B) proposes to allow an owner or operator with a SCAQMD approved source test conducted after January 1, 2009 to conduct an emission screening to satisfy the requirements of conducting the *initial* source provided the subject source test met the criteria stated above. This subparagraph includes provisions to allow an operator to submit a source test that was conducted after January 1, 2009 for approval.

Within 30 days of receiving the results of the emissions screen test, subparagraph (k)(3)(C) requires the owner or operator to submit the results to the Executive Officer. Under subparagraph (k)(3)(D), the owner or operator will be required to conduct a source test using an approved method within 60 days of conducting an emission screening test that fails the capture efficiency test(s) specified in the source test protocol, exceeds an emission limit specified in the SCAQMD Permit to Operate, or exceeds an emission limit in subdivision (h).

Paragraph (k)(4) defines the information content requirements for source test protocols and includes procedures for when a previously approved source test protocol can be used for conducting subsequent source tests.

~~Paragraph (k)(3) sets forth requirements for source testing and emissions evaluation compliance dates. The initial source test must be conducted 120 days after approval of the initial source test protocol. The due to date to submit an initial source test protocol is based on the facility's permitted annual ampere-hours, with facilities that have higher permitted limits required to submit sooner. A source test conducted after September 1, 2015 may be used to demonstrate compliance with the initial source test requirement. If not previously approved by SCAQMD, the owner or operator shall submit the source test to SCAQMD no later than 30 days after adoption of the rule. The Executive Officer shall notify the owner or operator within 30 days of receiving the source test results if it has demonstrated compliance with applicable emission limits, is representative of the method to control emissions currently in use, and the test was conducted using one of the approved test methods specified in the rule. A facility using a source test to demonstrate compliance with the initial source test requirement will be required to conduct a subsequent source test no later than 36 months from the adoption date of the rule instead of 36 months from the date of the subject source test.~~

~~In lieu of conducting a source test for subsequent tests, the owner or operator may conduct an emission screening of hexavalent chromium, which is an emission test following a source test protocol that consistence of one run instead of three runs and is representative of operating conditions at the facility:~~

~~Additionally, facilities with a District-approved source test conducted after January 1, 2009 will be allowed to conduct an emission screening to satisfy the requirements of conducting the initial source test so long as the subject source test met the criteria stated above.~~

~~The emission screening of hexavalent chromium will show whether the air pollution control technique is operating and performing as intended. While parameter monitoring may evaluate the performance of capture periodically, the emission screening allows the verification of emission limits. Owners or operators may utilize this option as a method to reduce the costs for potential work hours lost or having a source testing company conduct multiple runs. Within 30 days of receiving the results of the emission screening, the owner or operator shall submit the results to SCAQMD. The owner or operator will be required to conduct a complete source test using an approved method within 60 days of conducting an emission screening that fails the capture efficiency test(s) specified in the source test protocol, exceeds an emission limit specified in the Permit to Operate, or exceeds an emission standard of the rule.~~

~~The owner or operator shall submit a source test protocol for source tests required under subdivision (k) as specified below in Table 1-4:~~

~~Table 1-4~~
~~Submittal Dates of Source Test Protocol~~

~~Permitted Air Pollution Control Technique~~	~~Facility Permitted Annual Ampere-Hours~~	~~Due Date of Initial Source Test Protocol~~	~~Due Date of Subsequent Source Test Protocol~~
~~Existing on or Before [Date of Adoption]~~	~~> 20,000,000~~	~~No later than [180 Days After Date of Rule Adoption]~~	~~180 Days Prior to Due Date of Subsequent Source Test~~
	~~≤ 20,000,000 and > 1,000,000~~	~~No later than [365 Days After Date of Rule Adoption]~~	~~180 Days Prior to Due Date of Subsequent Source Test~~
	~~≤ 1,000,000~~	~~No later than [545 Days After Date of Rule Adoption]~~	~~180 Days Prior to Due Date of Subsequent Source Test~~
~~New or Modified After [Date of Adoption]~~	~~Any~~	~~60 days After Initial Start-Up~~	~~180 Days Prior to Due Date of Subsequent Source Test~~

~~The submission of the source test protocol is separated into three categories based on the facility permitted ampere-hours. The most recent SCAQMD approved source test protocol may use for subsequent source tests if there are no changes in either the tanks controlled by the APCD or the APCD since the last successful SCAQMD approved source test.~~

Paragraph (k)(6) clarifies the requirements for demonstrating that each add-on pollution control device meets the design criteria and ventilation velocities specified in *A Manual of Recommended Practice for Design* authored by the American Conference of Governmental Industrial Hygienists or alternative design criteria and ventilation velocities approved by the Executive Officer.

~~PAR 1469 specifies that the owner or operator using an add-on air pollution control device or add-on non-ventilated air pollution device shall demonstrate that all emissions are captured by measuring collection slot velocity and the push air manifold pressure. The demonstration shall be made during any source test. Additional parameter monitoring shall take place at least once every 180 days. An adequate collection slot velocity is required to ensure that collection of hexavalent chromium emissions is at the level measured during the source test.~~

~~A deficient measurement would indicate that the hexavalent chromium emissions are not being collected and being controlled by the add-on air pollution control device. If the measurement of a collection slot velocity is measured in the "repairable measurement" of 90-95% of the most recent passing source or emission screening or less than 2,000 feet per minute (fpm) and greater than 1,800 fpm, the owner or operator shall repair or repair and re-measure within 3 calendar days of the measurement. The tank controlled by the add-on air pollution control device may continue to operate with the add-on air pollution control device in operation. If the owner or operator fails to demonstrate that the collection slot is in the "acceptable measurement" range, greater than 95% of the most recent source test or emission screening or greater than 2,000 fpm, the owner or operator~~

~~shall shut-down any tanks associated with the any add-on air pollution control devices associated with the collection slot. If the measurement of the collection slot velocity is measured to be in the "failing measurement" range, less than 90% of the most recent source test or emission screening or less than 1,800 fpm the owner or operator shall immediately shut-down any tanks associated with any air add-on air pollution control devices associated with the collection slot.~~

~~This prevents the owner or operator from operating a tank that may be emitting hexavalent chromium since the hexavalent chromium emissions are not being sufficiently collected. The owner or operator shall demonstrate that the collection slot is in the "acceptable measurement" by re-measuring the collection slot velocity under typical operating conditions of the tank, with the exception of the suspension of electrolytic operations, prior to resuming electrolytic operations. The periodic measurement requirements to demonstrate the capture efficiency are summarized in Table 1-5 below.~~

~~Table 1-5~~
~~Periodic Measurement to Demonstrate Capture Efficiency~~

	~~Collection Slot(s) Velocity~~	~~Push Air Manifold Pressure (for push-pull systems only)~~	~~Required Action~~
~~Acceptable Measurement~~	~~> 95% of the most recent source test or emission screening; or ≥ 2,000 fpm~~	~~95-105% compared to the most recent passing source test or emission screening~~	~~None~~
~~Repairable Measurement~~	~~90-95% of the most recent passing source test or emission screening test, or < 2,000 fpm and > 1,800 fpm~~	~~90-110% of the most recent passing source test or emission screening test~~	~~Repair or replace, and re-measure within 3 calendar days of measurement~~
~~Failing Measurement~~	~~< 90% of the most recent passing source test or emission screening test, or <1,800 fpm~~	~~> 110% or < 90% of the most recent passing source test or emission screening test~~	~~Immediately shut down all tanks controlled by the add-on air pollution control device~~

~~PAR 1469 clarifies the requirements of the smoke test to clarify that both add-on air pollution control devices and add-on non-ventilated air pollution control devices are to be tested. Add-on air pollution control devices have emission collection systems and the smoke tests demonstrates through a qualitative evaluation that emissions coming from the tank are being collected. Add-on non-ventilated air pollution control devices typically do not have an emissions collection system and a smoke test would demonstrate the containment of hexavalent chromium emissions by devices such as tank covers and merlin hoods.~~

Paragraph (k)(7) clarifies the methods that are required to be used for conducting a smoke test for add-on air pollution control devices (see Appendix 5 in PAR 1469) and add-on non-ventilated air pollution control devices (see Appendix 8 – Smoke Test to Demonstrate Capture Efficiency for an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (k)(6) in PAR 1469).

Certification of Wetting Agent Chemical Fume Suppressant – Subdivision (l)

Paragraph (l)(1) modifies the existing requirements by prohibiting the addition of PFOS-based CFS to any chromium electroplating or chromic acid anodizing bath. Paragraph (l)(2) establishes the criteria for using a wetting agent chemical fume suppressant to lower the minimum surface tension of the tank to 40 dynes/cm, as measured by the stalagmometer, or below 33 dynes/cm, as

measured by a tensiometer. This modification is made to be consistent with the federal NESHAP for Chromium Electroplating which bans the use of PFOS in chemical fume suppressants. The certification list will be updated periodically based on the certification process conducted by the SCAQMD and the California Air Resources Board (CARB). Paragraph (l)(3) establishes a requirement for the ~~O~~owner or operators to use a certified wetting agent chemical fume suppressant in accordance with the certification and the applicable manufacturer specifications.

Paragaph (l)(4) includes ~~PAR 1469 adds~~ a new requirement that no later than ~~July~~ January 1, 2020, the Executive Officer shall notify the owner or operator of the availability of a wetting agent chemical fume suppressant ~~CFS that meets the requirements by July 1, 2022~~ and the certification status of any potential wetting agent chemical fume suppressant~~CFS~~ going through the certification process conducted by SCAQMD and CARB.

Beginning July 1, ~~2022~~2021, the owners or operators of a facility shall only add a wetting agent chemical fume suppressant~~CFS~~ to a ~~Tier III~~ Hexavalent ~~C~~chromium electroplating or chromic acid anodizing ~~Containing~~ Tank that meets the requirement of (l)(~~1~~4) based on a certification process conducted by SCAQMD and CARB.

~~The previous certification process involved emission testing to determine a corresponding surface tension to consistently produce an emission rate of 0.01 mg/ampere-hour. The new certification process may consider: toxicity reviews of compounds in the CFS, emission testing for CFS emissions, surface tension, emission testing for hexavalent chromium emissions, and additional data to evaluate the CFS.~~

Paragraph (l)(5) specifies that if the notification indicates that a wetting agent chemical fume suppressant~~CFS~~ that meets the certification requirements will not be available by July 1, 2021, ~~then~~ the owner or operator of a facility shall ~~install and~~ only add a chemical fume suppressant to a chromium electroplating or a chromic acid anodizing tank based on the information in the notice ~~implement an air pollution control technique to meet the~~ specified in paragraph (l)(4)~~(2)~~ no later than July 1, 2021~~2022~~.

If the notice indicates that a chemical fume suppressant that meets the certification requirements will not be available by July 1, 2021, the owner or operator shall meet the emission limits specified in paragraph (h)(2) no later than July 1, 2021 or implement an alternative to a wetting agent chemical fume suppressant that meets the requirements in paragraphs (l)(7) and (l)(8). If an owner or operator of a facility elects to meet the requirements of paragraph (l)(5) by implementing an alternative to a wetting agent chemical fume suppressant the owner or operator would be required to submit a permit application for the chromium electroplating or chromic acid anodizing tank(s) that includes the alternative and any conditions specified in the approval of the alternative in paragraph (l)(8).

Also, an owner or operator of a facility may elect to meet the requirements of paragraph (l)(5) by phasing-out the use of hexavalent chromium in a chromium electroplating or chromic acid anodizing tank that uses a wetting agent chemical fume suppressant. If the owner or operator of a facility elects to phase out the use of hexavalent chromium the phase-out shall occur on or before July 1, 2022.

~~As discussed in Chapter 1, CFS may be used in conjunction with other air pollution control techniques. Assuming that no CFS are certified, it is anticipated that facilities will either be required to install additional add-on air pollution control devices, upgrade existing air pollution control techniques, or modify operating practices. Owners or operators will be required to modify or obtain a Permit to Operate that reflects the change and conduct any required emission testing.~~

Paragraph (l)(6) includes an option for the owner or operator of a facility to submit a written commitment to the Executive Officer no later than January 1, 2021 that states the facility shall phase-out the use of hexavalent chromium in the electroplating or chromic acid anodizing tank that is using a wetting agent chemical fume suppressant~~CFS~~ by July 1, ~~2023~~2022, in lieu of complying with paragraph (l)(5). This commitment shall be signed by the owner or operator of the facility. The owner or operator may continue to use a wetting agent chemical fume suppressant~~CFS~~ certified pursuant to paragraph (l)(1) until July 1, ~~2023~~2022.

Paragraph (l)(8) of PAR 1469 adds a new provision that in the event the Executive Officer notifies facilities by January 1, 2020 that no wetting agent chemical fume suppressants will be available by July 1, 2021, the Executive Officer may identify one or more alternatives to a wetting agent chemical fume suppressant that meet the 0.01 milligrams per ampere-hour (mg/ampere-hour) limit. During the previous rule development of Rule 1469, wetting agent chemical fume suppressants were identified as an effective and low cost air pollution control technique to reduce hexavalent chromium emissions for facilities permitted less than or equal to 50,000 ampere-hours per year. The alternative to a wetting agent chemical fume suppressant will identify air pollution control technique(s) that must be used in combination to meet an equivalent emission rate of 0.01 mg/ampere-hour.

Paragraph (l)(10) requires the owner or operator that fails to phase-out the use of hexavalent chromium by July 1, ~~2023~~2022 to cease operating the electroplating or chromic anodizing tank that contains hexavalent chromium until the facility can meet the specified emission limits. ~~While the tank may be in compliance with surface tension limits, a facility that fails to cease operating the tank will be in violation of this provision.~~

Parameter Monitoring – Subdivision (m)

Modifications to this subdivision are necessary to revise existing and add new parameter monitoring requirements for add-on air pollution control devices and add-on non-ventilated air pollution control devices.

In particular, subparagraph (m)(1)(A) clarifies the pressure and air flow requirements for monitoring the operation of an add-on air pollution control device. Specifics regarding installation, maintenance, and labeling are detailed in PAR 1469, Table 4 - Pressure and Air Flow Measurement Parameters. Similarly, the requirements for maintaining the mechanical gauges are detailed in PAR 1469, Appendix 4 - Summary and Inspection of Maintenance Requirements. As required in Table 4 of PAR 1469, the owner or operator using an add-on air pollution control device shall demonstrate that emissions are captured by measuring collection slot velocity and the push air manifold pressure. The demonstration shall be made during any source test. Beginning 60 days after the completion of the initial source test, the owner or operator shall conduct additional parameter monitoring at least once every 180 days. An adequate collection slot velocity is required

to ensure the collection of hexavalent chromium emissions is at the level measured during the source test.

Subparagraph (m)(1)(B) establishes new requirements for the velocity of collection slots. In particular, Table 5 Add-on Air Pollution Control Device Parameter Monitoring, specifies the collection slot velocities and push air manifold pressure conditions that must be met for three categories: Acceptable Measurement, Repairable Measurement, and Failing Measurement.

Subparagraph (m)(1)(C) establishes new requirements for an owner or operator of a facility with an add-on air pollution control device demonstrating a repairable measurement to correct the measurement in a timely manner as specified in Table 5.

Subparagraph (m)(1)(D) establishes requirements for shutting down a tank controlled by an add-on air pollution control device until the collection slot velocity and/or push air manifold pressure are within the acceptable measurement range in the event there is a failure to correct a repairable measurement or if the measurement is in the "failing measurement" range.

Subparagraph (m)(1)(E) establishes requirements for conducting a smoke test once every 180 days in accordance with the methods described in Appendices 5 or 8 in PAR 1469, or some other method approved by the Executive Officer. The smoke test shall be conducted within 30 days of start-up for new and modified add-on air pollution control devices or add-on non-ventilated air pollution control devices.

Subparagraph (m)(1)(F) establishes requirements for when there is a failure of a smoke test. In the event an acceptable smoke test is not conducted in accordance with the requirements in subparagraph (m)(1)(E), the owner or operator of a facility shall immediately shutdown all Tier II and Tier III Hexavalent Chromium Tanks associated with the add-on air pollution control device or add-on non-ventilated air pollution control device until an acceptable smoke test is conducted.

~~Pressure Drops~~

~~PAR 1469 removes this subparagraph as the requirements have been moved to subparagraph (m)(1)(A).~~

~~Differential and Static Pressure~~

~~PAR 1469 requires additional monitoring of operational parameters. The owner or operator must continuously monitor the operation of the add-on air pollution control device by installing and maintaining mechanical gauges to ensure the applicable pressures and air flows are maintained at the push manifold, collection manifold, and across each stage of the control device. Each mechanical gauge shall be installed so that it is easily visible and in clear sight of the operation or maintenance personnel. The differential or static pressure shall be maintained within the value established during the source test and specified in the Permit to Operate. The gauges shall be labeled with the acceptable operating pressure and/or airflow ranges.~~

HEPA Filters –subparagraph (m)(1)(G)

Subparagraph (m)(1)(G) establishes parameter monitoring for HEPA filters. Beginning 60 days after the completion of the initial source test, ~~T~~the owner or operator of an add-on air pollution

control device equipped with HEPA filters shall ensure that the monitoring device for pressure drop:

- Is equipped with ports to allow for periodic calibration in accordance with manufacturer's specifications;
- Is calibrated according to manufacturer's specification at least once every calendar year; and
- Is maintained in accordance with the manufacturer's specification.

Wetting Agent Chemical Fume Suppressants (Excluding Decorative Chromium Electroplating Tanks Using a Trivalent Chromium Bath) – paragraph (m)(2)

The original requirement in subparagraph (m) (2)(A) to measure surface tension weekly after 20 daily measurements ~~of surface tension~~ with no violation has been modified to occur every third operating day, but not less than once a week~~ly frequency~~ and relocated to subparagraph (m)(2)(B). The required non-PFOS chemical fume suppressant~~CFS~~ evaporate and degrade faster than the PFOS-containing products. SCAQMD staff is concerned that this faster degradation can result in faster increases to surface tensions values. More frequent periodic monitoring of tank bath surface tensions will ensure that an adequate amount of chemical fume suppressant~~CFS~~ are being used to comply with the surface tension limits specified in the rule and permit conditions. New s~~S~~ubparagraph (m)(2)(C) requires daily surface tension measurements to be conducted for 20 consecutive operating days if the surface tension as required by subparagraph (m)(2)(A) is not maintained. The owner or operator can resume monitoring every third operating after successfully measuring the surface tension daily for 20 consecutive operating days.

Fume Suppressants Forming a Foam Blanket – paragraph (m)(3)

When fume suppressants forming a foam blanket are used, paragraph (m)(3) requires thickness of the foam blanket across the surface of the chromium electroplating or chromic acid anodizing tank to be measured and maintained as established during the most recently approved source test to demonstrate compliance with the emission limit specified in paragraphs (h)(2) or (h)(4). In the event the foam blanket thickness is not maintained, subparagraph (m)(3)(C) requires hourly thickness measurements to be conducted for 15 consecutive operating days and then daily thickness measurements afterwards.

Polyballs or Similar Mechanical Fume Suppressants – paragraph (m)(4)

When polyballs or similar mechanical fume suppressants are used, paragraph (m)(4) requires a visual~~ly~~ inspection for coverage comparable to the coverage during the source test each operating day. The paragraph has been modified to specify ~~include~~ Tier II and Tier III Hexavalent Chromium ~~Containing~~ Tanks.

Inspection, Operation, and Maintenance Requirements~~& Operation and Maintenance Plan~~ – Subdivision (n)

Subdivision (n) establishes inspection, operation, and maintenance requirements for when add-on air pollution control devices or add-on non-ventilated air pollution control devices are in use. The original table previously identified as Table 4 has been moved to Appendix 4~~,~~ and renumbered as Table 4-1 ~~and incorporates the newly added parameter monitoring requirements of subdivision (l)~~. Tier II Hexavalent Chromium Tanks not controlled by an add-on air pollution control device shall

comply with the applicable inspection and maintenance requirements in Appendix 4, Table 4-4. The existing requirements for facilities using CFS or mechanical fume suppressants has also been moved to Appendix 4, Table 4-~~2~~4. PAR 1469 also combines the existing requirements for the operation and maintenance plan into this subdivision.

Also, Tier II Hexavalent Chromium Tanks not controlled by an add-on air pollution control device and Tier I, Tier II, and Tier III Hexavalent Chromium Tanks are required to comply with new inspection and maintenance requirements within 90 days after the date of rule adoption.

Effective 90 days after the date of rule adoption, paragraphs (n)(3) and (n)(4) require the owner or operator of a facility to comply with the additional inspection and maintenance requirements in Appendix 4.

Also, effective 90 days after date of the rule adoption, paragraph (n)(9) requires the owner or operator to revise the facility's operation and maintenance plan to incorporate the inspection and maintenance requirements for a device or monitoring equipment that is identified in Tables 4-2 and 4-3 of Appendix 4.

Paragraph (n)(10) requires the owner or operator to photograph the ampere-hour reading of the ampere-hour being replaced and the new ampere-hour meter immediately after installation.

Recordkeeping and Reporting – Subdivisions (o) and (p)

Paragraph (o)(1) ~~PAR 1469~~ clarifies that the inspection records apply to facilities using either an add-on air pollution control devices or an add-on non-ventilated air pollution control devices. Additional recordkeeping requirements have been included to reflect the proposed provisions for building enclosures, housekeeping, best management practices, periodic source tests, capture efficiency tests, emission screening, and parameter monitoring. Inspection and maintenance requirements have been moved to Appendix 4.

As part of the ongoing compliance status and emission reports (specified in Appendix 3 – Content of Ongoing Compliance Status and Emission Reports), facilities must report the results of add-on air pollution ventilation measures conducted during the most recent source test. Facilities must report the velocity of each collection slot and push air manifold. Facilities must also report any pollution prevention measures that have been implemented that eliminate or reduce the use of hexavalent chromium in the chromium electroplating or chromic acid anodizing process. Also required in the compliance status reports are calculations for building enclosure envelopes, including locations and dimensions of openings counted towards the 3.5% allowance.

Paragraph (p)(4)~~PAR 1469~~ revises "Reports of Breakdowns" to "Notification of Incident". As background, SCAQMD Rule 430 provides breakdown coverage, where the facility may~~would~~ not be in violation of a permit condition or rule requirement, if the Executive Officer determines that it was a valid breakdown based on evidence provided by the owner or operator. However, the existing reference to Rule 430 in Rule 1469 is conflicting as Rule 430 does not apply to any Regulation XIV rules.

As a result, PAR 1469 replaces breakdown provisions with "Notification of Incident" which incorporates similar notification language used in Rule 430 by requiring the owner or operator to

notify SCAQMD via 1-800-CUT-SMOG within ~~one~~four hours of the incident or within ~~one~~ four hour of the time the owner or ~~operator~~ operator was notified ~~knew or reasonably should have known~~ of the following:

- Any failed smoke test
- Any failed source test
- An exceedance of a permitted ampere-hour limit
- A malfunction of a non-resettable ampere-hour meter

A supplemental report is required to be submitted no later than 30 calendar days from the date of incident.

New and Modified Sources (removed)

PAR 1469 removes previous subdivision (l) relating to New and Modified Sources as facilities are required to submit a permit prior to altering or installing equipment under existing SCAQMD rules for permitting (Regulation II) and toxic new source review (Rule 1401).

Exemptions – Subdivision (r~~q~~)

Due to the new requirements for Tier I and Tier II Hexavalent Chromium ~~Containing~~ Tanks, PAR 1469 removes the exemption for process tanks associated with a chromium electroplating or chromic acid anodizing process in which neither chromium electroplating nor chromic acid anodizing is taking place. One of the objectives of PAR 1469 is to control emissions from tanks that were identified as sources of hexavalent chromium where neither electroplating nor chromic acid anodizing is taking place.

PAR 1469 also removes the exemption that would suspend requirements during periods of equipment breakdown. As discussed earlier, references to Rule 430 have been removed due to the lack of applicability to Regulations XIV.

PAR 1469 adds a new exemption from the requirements of paragraphs (f)(6), (g)(4), and (g)(5) provided that the buffing, grinding or polishing operations are conducted under a continuous flood of metal removal fluid.

Title V Permit Requirements (removed)

PAR 1469 removes ~~the~~ previous subdivision (o) as SCAQMD Rule 3002 already requires a facility to obtain a Title V permit and comply with the conditions. Therefore, this subdivision is unnecessary and duplicative.

Chromium Electroplating or Chromic Acid Anodizing Kits Requirements (removed)

PAR 1469 removes previous subdivision (q) which contained requirements for chromium electroplating or chromic acid anodizing kits as this existing language was originally from the state's Chrome Plating ATCM regarding prohibitions on chromium electroplating and chromic acid anodizing kits. This language has been removed because Rule 1469 facilities are still subject to those requirements under state law.

Conditional Requirements for Permanent Total Enclosure – Subdivision (t)

Paragraph (t)(1) requires the owner or operator of a facility to install a permanent total enclosure for a Tier III Hexavalent Chromium Tank with a that does not exceed 3.5% for all enclosure openings as specified in paragraph (e)(1) ~~if~~ for a Tier III Hexavalent Chromium Tank:

- That results in ~~M~~more than one non-passing source test as required in paragraph (k)(1) occurring~~ed~~ within a consecutive 48-month period; or
- Not immediately shut down pursuant to clause (m)(1)(C)(iii) or subparagraph (m)(1)(D) or subparagraph (m)(1)(F) and the facility is more than 1,000 feet from a sensitive receptor, and~~More than one failure of~~ the owner or operator failed to cease operating a~~n electroplating or anodizing line associated with~~ tank that is controlled by an add-on air pollution control device or add-on non-ventilated air pollution control device more than once within a consecutive 48-month period due to a failed measurement of the collection system ~~of an add-on air pollution control device~~, or a failed smoke test as required in paragraph (k)(6); or~~f an add-on air pollution control device or add-on non-ventilated air pollution control device within a consecutive 48-month period.~~
- Not immediately shut down pursuant to clause (m)(1)(C)(iii), subparagraph (m)(1)(D) or subparagraph (m)(1)(F) and the facility is 1,000 feet or less from a sensitive receptor, and the owner or operator failed to cease operating a tank controlled by an add-on air pollution control device or add-on non-ventilated air pollution control device.

The distance of a sensitive receptor or a school to the facility shall be measured from the property line of the sensitive receptor or school to the nearest property line of the facility.

Paragraph (t)(2) allows the owner or operator to contest the requirement in paragraph (t)(1) to install a permanent total enclosure within 30 days of receiving notification from the Executive Officer that the requirement had been triggered. A written report contesting the requirement shall include evidence that installation of the permanent total enclosure is not warranted based on the following criteria:

- The incidents of non-compliance did not occur; or
- The owner or operator resolved the specified incidents of non-compliance specified in paragraph (t)(1) in a timely manner; or
- The owner or operator implemented specific measures minimize the hexavalent chromium emissions.

The Executive Officer will use the information in the written report to determine whether the permanent total enclosure is required and will notify the owner or operator within 90 days of receiving the written report.

Paragraph (t)(4) requires ~~P~~permanent total enclosures ~~will be required~~ to vent to an add-on air pollution control device that is fitted with HEPA filters, or other filter media that is rated by the manufacturer to be equally or more effective, and designed in a manner that does not conflict with requirements or guidelines set forth by OSHA or CAL-OSHA regarding worker safety, or the National Fire Protection Association regarding safety.

Paragraph (t)(5) requires a ~~P~~permit application for a permanent total enclosure to be submitted to the Executive Officer as follows:

- No later than 180 days after notification by the Executive Officer if the property line of the facility is within 500 feet of the property line of any sensitive receptor~~, school, or early education center~~.
- No later than 270 days after notification by the Executive Officer for all other facilities.

Installation of the permanent total enclosure shall be completed no later than 12 months after the Permit to Construct is issued by the Executive Officer.

~~Under the proposed amended rule, the owner or operator would be allowed to contest the requirement to install a permanent total enclosure within 30 days of receiving notification from the Executive Officer that the requirement had been triggered. A written report contesting the requirement shall include evidence that installation of the permanent total enclosure is not warranted based on the following criteria:~~

- ~~The specified incidences of non-compliances did not occur; and~~
- ~~The owner or operator resolved the specified incidences of non-compliances in a timely manner; and~~
- ~~The owner or operator implemented specific measures minimize the hexavalent chromium emissions.~~

~~The Executive Officer will use the information in the written report to determine whether the permanent total enclosure is required and will notify the owner or operator within 90 days of receiving the written report.~~

Hexavalent Chromium Phase-Out Plan – Subdivision (u)

Paragraph (u)(1) provides ~~O~~owners and operators of any facility~~ies~~ with an existing Tier III Hexavalent Chromium ~~t~~Tank that plans to eliminate or reduce hexavalent chromium concentrations within the tank shall not be subject to the requirements of paragraph (h)(4) to vent the tank to an add-on air pollution control device. In order to qualify for this exemption, facilities must submit a plan to the Executive Officer for approval that includes:

- The method by which the hexavalent chromium concentration will be eliminated or reduced and expected completion date; and
- A list of milestones necessary to occur, including their projected dates; and
- A list of all control measures that will be implemented until the concentration is eliminated or reduced.

Paragraph (u)(2) requires the Hexavalent Chromium Phase-Out Plan to be subject to the fees specified in Rule 306 – Plan Fees.

Paragraph (u)(4) requires the owner or operator to submit a progress report to the Executive Officer by the first day of each calendar quarter indicating the performance to meet the increments of progress for the previous quarter or submit according to an alternative schedule as specified in the approved plan.

~~Facilities must also submit a progress report to the Executive Officer by the 5th of every month indicating the performance to meet the increments of progress for the previous month, or submit according to an alternative schedule as specified in the approved plan. Implementation of the plan must be completed within 2 years of approval of the Hexavalent Chromium Phase-Out Plan. In addition, facilities unable to eliminate or reduce emissions by the expected completion date or if a Phase-Out Plan is denied after it is resubmitted, the owner or operator must submit permit applications for add-on air pollution control devices within 30 days of when they knew, or should have known that they could not meet the date. The add-on air pollution control device must be installed no later than 180 days after a Permit to Construct is issued.~~

Paragraph (u)(5) requires owners or operators to submit complete SCAQMD permit applications to comply with subdivision (h) if:

- The owner or operator does not eliminate or reduce hexavalent chromium by the final completion date in the Hexavalent Chromium Phase-Out Plan;
- The Executive Officer denies a resubmitted Hexavalent Chromium Phase-Out Plan; or
- The owner or operator fails to resubmit the Hexavalent Chromium Phase-Out Plan.

Paragraph (u)(6) requires the owner or operator to install the add-on air pollution control device no later than 180 days after a Permit to Construct is issued.

Time Extensions – Subdivision (v)

Paragraph (v)(1) allows an owner or operator of a facility to submit a request to the Executive Officer for a one-time extension for up to 12 months to:

- Complete installation of an add-on air pollution control device, implement an approved alternative compliance method, or implement an approved Hexavalent Chromium Phase-Out Plan to meet the requirements under subparagraph (h)(4)(C); or
- Meet the hexavalent chromium emission limit, phase-out the use of hexavalent chromium, or implement an alternative to a wetting agent chemical fume suppressant required under paragraph (l)(5).

Paragraph (v)(2) requires an owner or operator of a facility that requests a time extension under paragraph (v)(1) to submit the request no later than 90 days before the compliance deadline specified in subparagraph (h)(4)(C) or paragraph (l)(5) and provide:

- The facility name, SCAQMD facility identification number, and the name and phone number of a contact person;
- A description of the chromium electroplating or chromic acid anodizing tank and the SCAQMD Permit to Operate and tank number;
- A description of the emission reduction approach that is being implemented;
- The specific provision under subparagraph (h)(4)(C) or paragraph (l)(5) for which a compliance extension is being requested;
- The reason(s) a time extension is needed;

- Progress in meeting the provisions in subparagraph (h)(4)(C) or paragraph (l)(5) including but not limited to date permit application was submitted to the SCAQMD, date permit to construct was approved, purchase order of equipment, date of service of contractors or consultants to install equipment; and
- The length of time requested, up to 12 months.

Paragraph (v)(3) sets-forth criteria for the Executive Officer to review and approve the time extension requested by an owner or operator. Specifically, the owner or operator would be required to demonstrate that there are specific circumstances beyond the control of the owner or operator that necessitate additional time to meet the compliance dates specified under subparagraph (h)(4)(C) and paragraph (l)(5). Further, the demonstration would be required to be substantiated with information that includes, but is not limited to detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility.

Appendices

All additions and amendments to the following appendices have been made in order to provide clarity and information on PAR 1469.

Appendix 1 – Content of Source Test Reports (revised)

- Items 9-11 have been added to require applicable industrial ventilation limits; collection slot velocities (if applicable); and measured static, differential, or volumetric flow rate at the push manifold; across each stage of the control device; and exhaust stack (if applicable).

Appendix 4 – Notification of Construction Reports (deleted)

- Removed because information required for future construction of equipment at new or existing facilities is submitted with a Permit to Construction.

Appendix 4 – Summary of Inspection Requirements (new)

- Table 4-1: Summary of Inspection and Maintenance Requirements for Sources Using Add-on Air Pollution Control Device(s) or Add-On Non-Ventilated Air Pollution Control Device(s) previously in Table 4 has been added.
- Table 4-2: Additional Inspection and Maintenance Requirements for Tier I, II, and III Hexavalent Chromium Tank(s) has been added.
- Table 4-3: Summary of Inspection and Maintenance Requirements for Sources Not Using Add-on Air Pollution Control Device to Control Tier II Hexavalent Chromium Tank(s) has been added.
- Table 4-4: Summary of Inspection and Maintenance Requirements for Sources Using Chemical or Mechanical Fume Suppressants previously in Table 5 has been added.

Appendix 5 – Smoke Test for Add-on Non-Ventilated Air Pollution Control Device (revised)

Appendix 7 – Distance Adjusted Ampere-Hour and Annual Emissions Limits for Facilities Located More Than 25 Meters from a Residence or Sensitive Receptor (deleted)

- This appendix was deleted because the tables originally included in this appendix were applicable to requirements in Rule 1469 that were removed.

Appendix 7 – Information Demonstrating an Alternative Method(s) of Compliance Pursuant to Subdivision (i) (revised)

- Item 5 has been added to require an owner or operator to demonstrate that the facility is at least 75 feet from a sensitive receptor. Facilities that are within 75 feet from sensitive receptors are ineligible to utilize an alternative method and are required to use an add-on air pollution control device.

Appendix 8 – Smoke Test to Demonstrate Capture Efficiency for an Add-on Air Pollution Control Device(s) Pursuant to Paragraph (k)(6) (revised)

- The reference to "Model #15 049 Tel-Tru T-T Smoke Sticks from E. Vernon Hill Incorporated" was removed from Item 2.1.

Appendix 10 – Tier II and Tier III Hexavalent Chromium Tank Thresholds (new)

CHAPTER 2

ENVIRONMENTAL CHECKLIST

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's potential adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Proposed Amended Rule (PAR) 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Mr. Sam Wang, (909) 396-2649 Mr. Darren Ha, (909) 396-2548
PAR 1469 Contact Person	Mr. Neil Fujiwara, (909) 396-3512
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	PAR 1469 is to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 contains new requirements for: 1) hexavalent chromium ~~-containing~~ tanks, such as dichromate seal tanks, that are currently not regulated; 2) air pollution control equipment to be installed on hexavalent chromium ~~-containing~~ Tier III tanks that emit or have the potential to emit hexavalent chromium; 3) conducting periodic source testing and parametric monitoring of air pollution control equipment; 4) complying with building enclosure provisions; ~~5) maintaining minimum freeboard height on certain tanks~~; 5~~6~~) conducting additional housekeeping and implementing best management practices for all hexavalent chromium ~~containing~~ tanks; 6~~7~~) permanent total enclosures to be vented to air pollution control equipment in the event of non-compliance with specific source testing or monitoring requirements; 7~~8~~) reducing allowable surface tension limits; 8~~9~~) prohibiting the use of chemical fume suppressants that contain perfluorooctane sulfonic acid (PFOS); and 9~~10~~) evaluating the use of non-PFOS chemical fume suppressants with toxicity concerns via a revised

	certification process conducted by SCAQMD and the California Air Resources Board. Some facilities that may be affected by PAR 1469 are identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5. While the reduction of hexavalent chromium emissions is expected to create an environmental benefit, activities that facility operators may undertake to comply with PAR 1469 may also create secondary adverse environmental impacts from the construction and operation activities primarily associated with installing new or modifying existing air pollution control equipment. However, analysis of PAR 1469 in the Final~~Draft~~ EA did not result in the identification of any environmental topic areas that would be significantly adversely affected.
Surrounding Land Uses and Setting:	Various
Other Public Agencies Whose Approval is Required:	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓"involve at least one impact that is a "Potentially Significant Impact". An explanation relative to the determination of impacts can be found following the checklist for each area.

☐ Aesthetics	☐ Geology and Soils	☐ Population and Housing
☐ Agriculture and Forestry Resources	☐ Hazards and Hazardous Materials	☐ Public Services
☐ Air Quality and Greenhouse Gas Emissions	☐ Hydrology and Water Quality	☐ Recreation
☐ Biological Resources	☐ Land Use and Planning	☐ Solid and Hazardous Waste
☐ Cultural Resources	☐ Mineral Resources	☐ Transportation and Traffic
☐ Energy	☐ Noise	☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

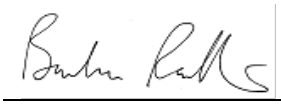
☑ I find the proposed project, in accordance with those findings made pursuant to CEQA Guidelines Section 15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and, 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: 1) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards; and, 2) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: February 15, 2018 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA Special Projects
Planning, Rules, and Area Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

As discussed in Chapter 1, the main focus of PAR 1469 is to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations. PAR 1469 has been evaluated relative to each of the 17 environmental topics identified in the following environmental checklist. Many requirements in PAR 1469 would not be expected to cause any physical changes that that could have secondary adverse environmental effects. For example, requirements to keep records, submit source testing protocols, and provide notifications are administrative or procedural in nature and would not be expected to create any secondary adverse environmental effects. In addition, more stringent requirement of the best management practices is not expected to cause environmental impacts because facilities currently are implementing most of the best management practices and the additional best management practices do not require any major construction for the facilities.

PAR 1469 also contains requirements that may cause physical activities to occur at sites affected by the proposed project and these activities may create secondary adverse environmental impacts. For example, in order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing new add-on air pollution control devices (APCDs) to control hexavalent chromium emissions from Tier III tanks, relocating hexavalent chromium ~~-containing~~ tanks into buildings, installing building enclosures, conducting additional source tests, and the implementation of additional housekeeping and best management practices for all hexavalent chromium ~~-containing~~ tanks. Activities associated with tank relocations, constructing~~installing~~ building enclosures ~~-constructions~~, and installing APCDs are treated as construction impacts while conducting source tests and implementing housekeeping are considered operational impacts. Thus, the analysis in this Final~~Draft~~ EA focuses on the potential secondary adverse environmental impacts associated with these activities. To evaluate these impacts, the following assumptions were relied upon in the analyses for the 115 facilities in SCAQMD's jurisdiction that are subject to PAR 1469:

Construction:

- 55 ~~61~~facilities have ~~118~~ 103 Tier III tanks that would be required to have ~~118~~ 103 APCDs installed within 36 months after the date of adoption of PAR 1469.

- Each APCD consists of ductwork, one blower, one mist eliminator and one HEPA filter system.

- An additional 27 APCDs are assumed to be installed at 27 decorative chrome electroplating, hard chrome electroplating or chromic acid anodizing facilities that use CFS without a HEPA or equivalent APCD in the event that no chemical fume suppressants will be certified prior to July 1, 2022. The owners/operators of these affected facilities will need to plan for and install the APCDs prior to this date. The construction schedule for installing these APCDs is estimated to occur over a 10-month period from ~~5/1/2021 – 7/1/2021~~ October 2020 to July 2021.

- For each tank required to be controlled under PAR 1469, one APCD is assumed to be installed. This is a conservative assumption that overestimates the actual number of APCDs that may be installed and resulting impacts from construction and operation, for the following reasons:

- Equipment associated with multiple APCDs being delivered to one facility can be shipped on the same truck;

- Some facilities may be able to vent emissions from multiple tanks to one APCD, depending on the proximity of the tanks relative to the location of the APCD;

- Some facilities may be able to either vent a Tier III tank to an existing APCD, provided there is enough capacity to handle the extra flow, or upgrade an existing APCD to accommodate any additional tanks.

- Facilities that conduct chromic acid anodizing may have some tanks that would be considered Tier III tanks depending on the concentration of hexavalent chromium in the tanks and if air sparging is used as the agitation method. However, industry representatives indicated that these tanks would be converted to use mechanical agitation, such as eductors. By modifying the agitation method, the tanks would not be considered a Tier III tank and therefore not require APCDs to be installed.

- Up to 6 stripping tanks may need to undergo minor construction activities because the tanks are currently located outside of a building. In order to comply with the building enclosure requirements prescribed in subdivision (e) of PAR 1469, these tanks will need to be relocated inside a building. The tank relocation is expected to occur within 90 days after the date of adoption of PAR 1469.

- Some facilities may need to modify the buildings in which the tanks are operating in order to comply with the maximum three and a half percent (3.5%) building opening of the building envelope enclosure requirement in subdivision (e). Based on observations from site visits and survey results, the building improvements that may be necessary are expected to be minor. Modifications to those buildings to meet the requirements of PAR 1469 include closing doors, windows, and other openings or installing a roll-up door or plastic strip curtains. These activities can be accomplished with one to several employees in a short period of time (from one to three days) using hand tools and onsite materials. PAR 1469 does not require that all openings to be closed, only specific openings and allows openings that represent up to 3.5% ~~three and a half percent~~ of the building envelope. Therefore, the environmental impacts associated with the building improvement activities that may be employed to comply with the 3.5% ~~three and a half percent~~ building enclosure requirement are considered to be negligible and are not evaluated further.

- For the "worst-case" peak construction day, the analysis in the Draft EA assumed that 12 APCDs ~~are assumed to~~ would be constructed on a given day. SCAQMD staff used the total numbers of APCD divided by 12 months which was ~~is~~ a very conservative assumption and approach at that time. To adjust the analysis to reflect the revisions to PAR 1469 that occurred after the release of the Draft EA for public review and comment, ~~The construction for~~ two additional permanent total enclosures (PTEs) would also need to be constructed on a peak construction day. For the purpose of this analysis, the construction of two PTEs is ~~are~~ equivalent to the construction of two APCDs.~~,~~ T~~t~~hus, the analysis has been revised to ~~conservative approach is to~~ assume that 14 APCDs would ~~to~~ be constructed on a peak day.

- The installation of one APCD will require one air compressor, one welder, one forklift, and one aerial lift to operate four hours per day for five days and will require a construction

crew consisting of six members (1 vendor driving a medium duty delivery truck (MDT) and 5 workers driving light duty vehicles (LDA/LDT1/LDT2)).

- The relocation of one tank will require one forklift and one welder to operate four hours per day for one day. The analysis assumes that only one construction crew (the welder who is not a facility employee) will drive one LDA/LDT1/LDT2 vehicle to do the welding work. All other work can be done by facility employees.

- CalEEMod version 2016.3.2 will be used to analyze the emissions from vehicle trips during construction.

- Tier II Hexavalent Chromium Tanks have the potential to emit hexavalent chromium emissions at a rate between 0.20 mg/hr to 0.40 mg/hr and controls such as mechanical fume suppressants or tank covers can be utilized to reduce hexavalent chromium emissions to below 0.20 mg/hr. For this reason, no construction activities are assumed for Tier II Hexavalent Chromium Tanks to comply with PAR 1469.

Operation:

- Up to 89 ~~98~~ facilities will need to comply with either the full or screening source testing requirements described in subdivision (k) of PAR 1469 for the Tier III tanks. Owners/operators of affected facilities would be expected to hire a source testing company to do the work. This analysis assumes that one source testing vehicle (LDT) with a 2-person crew and one maintenance truck (MDV) with a 2-person crew will each drive approximately 40 miles round trip each day to conduct the required source tests or emission screening tests at each facility.

- For the "worst-case" peak operation day, up to four source testing vehicles and four maintenance trucks will be conducting source tests or emissions screening tests on the same day.

- Any facility that exceeds the emission~~source test~~ limits in PAR 1469 after a non-passing source test ~~re-testing~~ will be subject to requirements to install a permanent total enclosure with negative air pressure vented to pollution controls. The installation of the permanent total enclosure and negative air will have associated vehicle trips and equipment to complete the installation and these activities are considered as construction impacts. Implementing a negative air control system will have associated electricity use. The electricity use is ~~are~~ considered an~~as~~ operational impact~~s~~.

- No additional employees are expected to be hired as a result of PAR 1469.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that are described in the Project Description section in Chapter 1 and these changes are also reflected in the above assumptions. Staff has reviewed these modifications and concluded that overall, no new impacts to any environmental topic area are anticipated to result from these modifications. Further, the impacts previously evaluated in the Draft EA would not be made substantially worse and the conclusions reached in the Draft EA remain unchanged in the Final EA with respect to the latest version of PAR 1469. Thus, staff has concluded that none of the modifications constitute significant new information of substantial importance relative to the

Draft EA. In addition, revisions to PAR 1469 in response to verbal or written comments would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the document pursuant to CEQA Guidelines Sections 15073.5 and 15088.5.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

I. a), b) c) & d) No Impact. To reduce hexavalent chromium emissions from the affected facilities, new APCDs (e.g., HEPA filters) will need to be installed or in some instances, older or less efficient APCDs may need to be replaced with newer, cleaner, more efficient APCDs. In addition, in order to comply with the building enclosure requirements in PAR 1469, some facilities may need to relocate their tanks from outside of the building to inside.

Due to the size and weight of the APCD that may need to be replaced or installed and the tanks that may need to be relocated, construction equipment such as aerial lifts, compressors, welders, and forklifts, et cetera, will be needed to carry out these activities. Chromium electroplating and chromic acid anodizing facilities work with all sizes of products so it is not uncommon for these facilities to already have aerial lifts, forklifts and other types of heavy equipment on site as part of their day-to-day operations. An aerial lift, when fully extended may be temporarily visible in the surrounding areas while in use if the construction work is primarily occurring outside of existing buildings or structures. However, the visibility of an aerial lift to surrounding areas will also depend on where the equipment is located within each facility's property boundary. Except for the use of aerial lift, the majority of the construction equipment is expected to be low in height and not substantially visible to the surrounding area due to existing fencing along the property lines and existing structures currently within the facilities that may buffer the views of the construction activities.

Because each affected facility is located in existing industrial, commercial or mixed land use areas, the construction equipment is not expected to be substantially discernable from what exists on-site for routine operations and maintenance activities. Further, the construction activities are not expected to adversely impact views and aesthetics resources since most of the heavy equipment and activities are expected to occur within the confines of each existing enclosed facility and are expected to introduce only minor visual changes to areas outside each facility, if at all, depending on the location of the construction activities within the facility.

Lastly, the construction activities are expected to be temporary in nature and will cease following completion of the installation of new or modifications to existing APCDs or relocation of tanks. Once construction of any new or modified APCDs and tank relocations are completed, any construction equipment that has been rented will be removed from each facility. Further, these new or modified APCDs would be expected to blend in with the existing industrial profile at the affected facilities because the heights of these units are typically smaller when compared to neighboring existing equipment onsite and their associated stack heights would be about the same or shorter than existing stacks within the affected facilities.

PAR 1469 also contains requirements for facility owners or operators to conduct periodic source testing and parametric monitoring of APCDs, and to conduct additional housekeeping and implement best management practices for all hexavalent chromium ~~containing~~ tanks. These low-profile activities are limited to occur within each facility's property such that scenic vistas would not be affected.

Therefore, any potential construction and operation of new and modified existing APCDs and tanks as a result of the proposed project would not be expected to damage, degrade, or obstruct scenic resources and the existing visual character of any site in the vicinity of affected facilities.

There are no components in PAR 1469 that would require construction activities to occur at night. Further, cities often have their own limitations and prohibitions that restrict construction from

occurring during evening hours and weekends. Therefore, no additional temporary construction lighting at the facility would be expected. Similarly, while the proposed project has no provisions that would require affected equipment to operate at night, some facilities currently operate multiple shifts and existing lighting is utilized during the nighttime shifts. For those facilities that are projected to modify existing buildings or install APCDs, once construction is complete, additional permanent light fixtures may be installed on or near the new or modified structures for safety and security reasons. These permanent light fixtures should be positioned to direct light downward toward equipment within the facility so as to not create additional light or glare offsite to residences or sensitive receptors. Therefore, the proposed project is not expected to create a new source of substantial light or glare at any of the affected facilities in a manner that would adversely affect day or nighttime views in the surrounding areas.

Conclusion

Based upon these considerations, significant adverse aesthetics impacts are not expected from implementing PAR 1469. Since no significant aesthetics impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES.** Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on agriculture and forestry resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion
PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

II. a), b), c), & d) No Impact. Compliance with PAR 1469 is expected to be met by installing or replacing APCDs, relocating tanks, installing building enclosures, and conducting additional source tests and parametric monitoring of APCDs. Since both construction and operation activities resulting from the ~~that would occur as a result~~ of implementation~~ing~~ of the proposed project would occur within the existing boundaries of each affected facility, there are no provisions in PAR 1469 that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements affecting ~~relative to~~ agricultural resources would be altered by the proposed project. For these reasons, implementation of PAR 1469 would not convert farmland to non-agricultural use or conflict with zoning for agriculture use or a Williamson Act contract. Furthermore, it is not expected that PAR 1469 would conflict with existing zoning for, or cause rezoning of, forest land; or result in the loss of forest land or conversion of forest land to non-forest use. Consequently, the proposed project would not create any significant adverse agriculture or forestry impacts.

Conclusion
Based upon these considerations, significant adverse agriculture and forestry resources impacts are not expected from implementing PAR 1469. Since no significant agriculture and forestry resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☑	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☑	☐
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

Significance Criteria

To determine whether or not air quality and greenhouse gas impacts from implementing PAR 1469 are significant, impacts will be evaluated and compared to the criteria in Table 2-1. PAR 1469 will be considered to have significant adverse impacts if any one of the thresholds in Table 2-1 are equaled or exceeded.

Table 2-1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction** [b]	**Operation** [c]
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO_2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [d]		
NO_2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average annual average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
$PM_{2.5}$ 24-hour average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation)	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average	1.5 μg/m^3 (state) 0.15 μg/m^3 (federal)	

[a] Source: SCAQMD CEQA Handbook (SCAQMD, 1993)
[b] Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
[c] For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
[d] Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
[e] Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO_2eq = metric tons per year of CO_2 equivalents > = greater than

Revision: March 2015

Discussion
PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

III. a) No Impact. The SCAQMD is required by law to prepare a comprehensive district-wide Air Quality Management Plan (AQMP) which includes strategies (e.g., control measures) to reduce emission levels to achieve and maintain state and federal ambient air quality standards, and to ensure that new sources of emissions are planned and operated to be consistent with the SCAQMD's air quality goals. The AQMP's air pollution reduction strategies include control measures which target stationary, area, mobile and indirect sources. These control measures are based on feasible methods of attaining ambient air quality standards. Pursuant to the provisions of both the state and federal Clean Air Acts, the SCAQMD is also required to attain the state and federal ambient air quality standards for all criteria pollutants.

The most recent regional blueprint for how the SCAQMD will achieve air quality standards and healthful air is outlined in the 2016 AQMP[9] which contains multiple goals of promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP contains control measure TXM-02: Control of Toxic Metal Particulate Emissions from Plating and Anodizing Operations, which identifies Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid and Anodizing Operations, to specifically address reducing fugitive particulate matter (PM) emissions and hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations.

PAR 1469 has been crafted to further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations and will result in the installation of APCDs, tank relocations, ~~adding~~ and improving building enclosures or buildings. ~~requirements.~~ PAR 1469 will also require additional source tests and parametric monitoring of APCDs, additional housekeeping, and implementation of best management practices. Upon implementation, PAR 1469 would be expected to reduce exposure to hexavalent chromium emissions of ~~affecting~~ neighboring businesses and residents.

For these reasons, PAR 1469 is not expected to obstruct or conflict with the implementation of the 2016 AQMP. ~~because t~~The emission reductions from implementing PAR 1469 are in accordance

[9] SCAQMD, Final 2016 Air Quality Management Plan, March, 2017. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf

with the emission reduction goals in the 2016 AQMP. PAR 1469 will help reduce toxic and fugitive PM emissions which are consistent with the goals of the 2016 AQMP. Therefore, implementing PAR 1469 to reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations would not conflict with or obstruct implementation of the applicable air quality plan. Since no significant impacts were identified for this issue, no mitigation measures are necessary or required.

III. b) and f) Less Than Significant Impact. The determination of whether a project will conflict with or obstruct implementation of the SCAQMD's 2016 AQMP and/or diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutants is dependent on construction and operational activities associated with the proposed project. While PAR 1469 does not contain any requirements for facilities to build new chromium electroplating and chromic acid anodizing operations, some requirements in PAR 1469 may be expected to cause existing facilities to make physical modifications that may require some construction activities as well as operational changes, once construction is completed.

It is important to note that SCAQMD staff is not aware of any new chromium electroplating and chromic acid anodizing operations facilities planned to be constructed in the immediate future and is unable to predict or forecast, when, if any, would be built in the long-term. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of construction and operation impacts for new facilities is concluded to be speculative and will not be evaluated further in this analysis.

Instead, the focus of the analysis will be on the 115 existing facilities and the effects of complying with PAR 1469 (e.g, physical modifications requiring construction or operational changes) as explained in the following discussion.

Construction Activities

The primary source of air quality construction impacts would be from PAR 1469's key requirements to install new APCDs and associated ventilation systems as needed, remove the old existing APCDs (if any) and replace with the new ones, relocate tanks currently operating outside of the buildings by moving them inside, and construct building enclosures.

Operational Activities

Similarly, the primary source of air quality impacts during operation would be from the requirements to maintain the APCDs and conduct additional source tests of the APCDs. Thus, the analysis focuses on the potential secondary adverse environmental impacts from these activities during operation. Other operational activities including conducting parametric monitoring of APCDs, implementing additional housekeeping and best management practices, maintaining minimum freeboard height on certain tanks and reducing allowable surface tension limits are all ~~procedural support~~ activities to help achieve beneficial reductions in hexavalent chromium emissions without creating any adverse air quality impacts.

Table 2-2 summarizes the key requirements in PAR 1469 that may create secondary adverse air quality and greenhouse gas (GHG) impacts during construction and operation.

Table 2-2
Sources of Potential Secondary Adverse Air Quality and GHG Impacts During Construction and Operation

Key Requirements in PAR 1469	Physical Actions Anticipated During:	
	Construction	**Operation**
Subdivision (d): Tanks currently operating outside of the buildings	Relocate tanks	None
Subdivision (e): Building enclosures	1. Close ~~the~~ doors, windows, and other openings 2. Install roll-up doors or plastic strip curtains	None
Subdivisions (f) & (g): Housekeeping and best management practices	None	Already in practice; minimal additional actions
Subdivision (h): Add-on air pollution control devices, parameter monitoring, and emission standards	Replace and/or install APCDs	1. Air pollution control equipment (e.g., HEPA) operation 2. Vehicle trips due to filter replacement, waste disposal, and filter leak detection
Subdivision (k): Source test	None	Vehicle trips due to additional periodic source testing
Subdivision (t): Installation of Permanent Total Enclosures (PTE)	Construction and Installation of PTEs for Tier III tanks	None

For the purpose of the conducting a worst-case CEQA analysis, for the 115 chromium electroplating and chromic acid anodizing operations facilities that will be subject to PAR 1469, the following assumptions have been made:

- 55 ~~61~~ facilities have 103 ~~118~~ Tier III tanks that would be required to have 103 ~~118~~ APCDs installed within 36 months after the date of adoption of PAR 1469. Each APCD consists of ductwork, one blower, one mist eliminator and one HEPA filter system. Table 2-3 summarizes the APCD installation schedule based on the type of facilities subject to the requirements in PAR 1469.

Table 2-3
Estimated APCD Installation Schedule

Type of facilities	Estimated number of APCDs to be installed at the time of Draft EA	Estimated number of APCDs to be installed at the time of Final EA	Estimated construction schedule at the time Draft EA	Estimated construction schedule at the time of Final EA
Chromic Acid Anodizing	63	71	4/1/2019 – 4/1/2020	9/2019 – 9/2020
Hard Plating	21	21	10/1/2019 – 10/1/2020	3/2020 – 3/2021
Decorative Plating	34	11	4/1/2020 – 4/1/2021	9/2020 – 9/2021

- An additional 27 APCDs are assumed to be installed at 27 decorative chrome electroplating, hard chrome electroplating or chromic acid anodizing facilities that use CFS without a HEPA or equivalent APCD in the event that no CFS will be certified prior to July 1, 2022. The owners/operators of these affected facilities will need to plan for and install the APCDs prior to this date. The construction schedule for installing these APCDs is estimated to occur from ~~5/1/2021~~10/2020 – ~~7/1/2021~~7/2021;

- For each tank required to be controlled under PAR 1469, one APCD is assumed to be installed. This is a conservative assumption that overestimates actual number of APCDs that may be installed and resulting impacts from construction and operation, for the following reasons:

    - Equipment associated with multiple APCDs being delivered to one facility can be shipped on the same truck;

    - Some facilities may be able to vent emissions from multiple tanks to one APCD, depending on proximity of the tanks relative to the location of the APCD;

    - Some facilities may be able to either vent a Tier III tank to an existing APCD, provided there is enough capacity to handle the extra flow, or upgrade an existing APCD to accommodate any additional tanks.

    - Facilities that conduct chromic acid anodizing may have some tanks that would be considered Tier III tanks depending on the concentration of hexavalent chromium in the tanks and if air sparging is used as the agitation method. However, industry representatives indicated that these tanks would be converted to use mechanical agitation, such as eductors. By modifying the agitation method, the tanks would not be considered a Tier III tank and therefore not require APCDs to be installed.

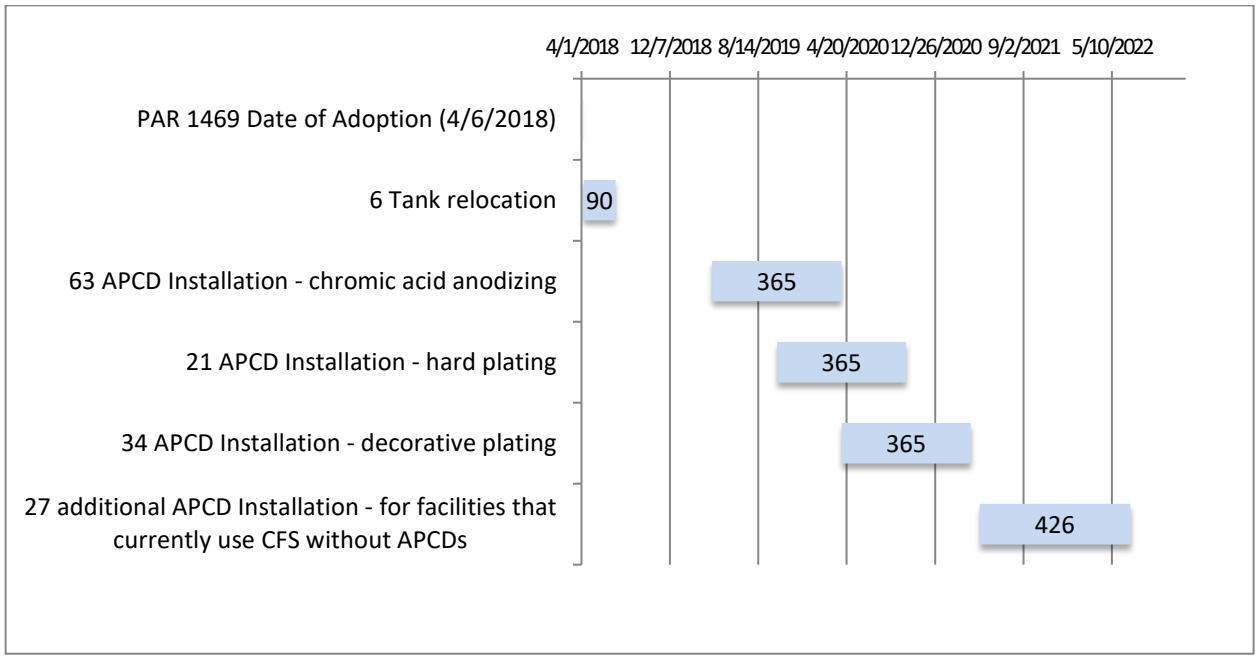
- Up to 6 stripping tanks may need to undergo minor construction activities because the tanks are currently located outside of a building. In order to comply with the building enclosure requirements prescribed in subdivision (e) of PAR 1469, these tanks will need to be relocated inside a building. The tank relocation is expected to occur within 90 days after the date of adoption of PAR 1469.

- Some facilities may need to modify the buildings in which the tanks are operating in order to comply with the ~~three percent~~ 3.5% building enclosure requirement in subdivision (e). Based on observations from site visits and survey results, the building improvements that may be necessary are expected to be minor. For example, to achieve a building enclosure, some buildings may only need to have the doors, windows, and other openings closed or a roll-up door or plastic strip curtains installed. These activities can be accomplished with one to several employees in a short period of time (from one to three days) using hand tools and onsite materials. Therefore, the environmental impacts associated with the building improvement activities that may be employed to comply with the 3.5% ~~three percent~~ building enclosure requirement are considered to be negligible and are not included in this analysis.

- The timing of when PTEs are expected to be constructed is dependent on criteria outlined in subdivision (t). For example, a PTE installation will be required for any facility that has consistently shown the equipment cannot meet the point source emission requirement or if operators fail to adhere to the requirements to shut down a tank that fails specific parameter monitoring provisions. Also, a PTE would be required in the event of not passing a source test or operating a tanks without the proper add-on air pollution control device. This analysis assumes that two facilities will trigger the requirement to install a total of two PTEs. A total of two PTEs are assumed to be installed over a four-month between March 2020 and July 2021.

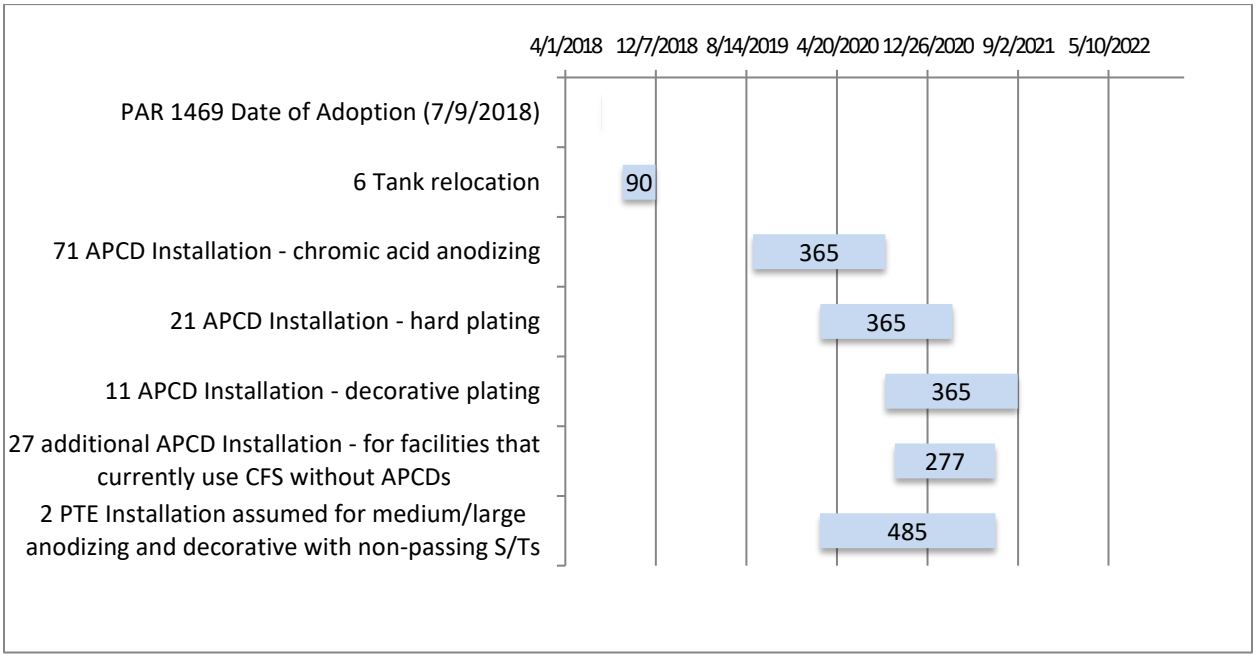
- Figure 2-1 illustrates the estimated construction days and schedule per requirement and tank types at the time the Draft EA was released for public review and comment.

- Figure 2-2 illustrates the revised estimated construction days and schedule per requirement and tank types to reflect the latest version of PAR 1469 that is addressed in ~~at the time of~~ thise Final EA.



Key: APCD = Air Pollution Control Device; and CFS = chemical fume suppressant

Figure 2-1
Estimated Construction Days and Schedule by Different Rule Requirements And Tank Types as presented in the Draft EA



Key: S/T = Source Test; APCD = Air Pollution Control Device; and CFS = chemical fume suppressant

Figure 2-2
Revised Estimated Construction Days and Schedule by Different Rule Requirements And Tank Types as presented in the Final EA

- According to the construction schedule in Table 2-3 and Figure 2-~~1~~2, a total of 130 APCDs and two PTEs will be installed. For the "worst-case" peak construction day, the analysis in the Draft EA assumed that 12 APCDs would be constructed on a given day. To adjust the analysis to reflect the revisions to PAR 1469 that occurred after the release of the Draft EA for public review and comment, the analysis has been revised to assume that 12 APCDs plus two PTEs would be constructed on a peak day. For the purpose of this analysis, the construction needed to build two PTEs is equivalent to constructing two APCDs over a five-month period from March 2020 to September 2020.~~on a "worst-case" peak construction day, up to 12 APCDs are assumed to be constructed on a given day from 10/1/2019 to 4/1/2020.~~

- The installation of one APCD will require one air compressor, one welder, one forklift, and one aerial lift to operate four hours per day for five days and will require a construction crew consisting of six members (1 vendor driving a medium duty delivery truck (MDT) and 5 workers driving light duty vehicles (LDA/LDT1/LDT2)).

- The relocation of one tank will require~~s~~ one forklift and one welder to operate four hours per day for one day. The analysis assumes that only one construction crew (the welder who is not a facility employee) will drive one LDA/LDT1/LDT2 vehicle to do the welding work. All other work can be done by facility employees.

- CalEEMod version 2016.3.2 will be used to analyze the emissions from vehicle trips during construction.

- Up to 89 ~~98~~ facilities will need to comply with either the full or screening source testing requirements described in subdivision (k) of PAR 1469 for the Tier III tanks. Owners/operators of affected facilities would be expected to hire a source testing company to do the work. This analysis assumes that one source testing vehicle (LDT) with a 2-person crew and one maintenance truck (MDV) with a 2-person crew will each drive approximately 40 miles round trip each day to conduct the required source tests or emission screening tests at each facility. These activities are considered operational impacts.

- For "worst-case" peak operation day, up to four source testing vehicles and four maintenance trucks will be conducting source tests or emissions screening tests on the same day.

- Any facility that exceeds the source test limits in PAR 1469 after re-testing will be required to install a permanent total enclosure with negative air. The installation of the permanent total enclosure and negative air will have associated vehicle and equipment to complete the installation and these activities are considered construction impacts. Implementing negative air pressure control system will have associated electricity use. The electricity use is ~~are~~ considered an operational impacts.

- CARB-EMFAC2014 will be used to analyze the emissions from vehicle trips during operation.

- No additional employees are expected to be hired as a result of PAR 1469.

Construction Impacts

Construction emissions were estimated by using the California Emissions Estimator Model® version 2016.3.2 (CalEEMod[10]). To install APCDs and to relocate tanks to the inside of the buildings, the use of the following construction off-road equipment was assumed: air compressor, welder, forklift, and aerial lift[11]. In addition, emissions from all on-road vehicles transporting workers, vendors, and material removal and delivery during construction were also calculated using CalEEMod. The detailed output reports for the CalEEMod runs are included in Appendix C of this Final~~Draft~~ EA. Table 2-4 and Table 2-5 summarize the results of the construction air quality analysis during the tank relocations and APCD installations, respectively. Appendix C also contains the spreadsheets with the results and assumptions used for this analysis.

Table 2-4
Peak Daily Construction Emissions During Tank Relocations[a, b, c, & d]

Construction Activity	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
3 tank relocations occurring on a peak day	1.13	5.43	6.30	0.01	0.75	0.45
Total Peak Daily Construction Emissions	1.13	5.43	6.30	0.01	0.75	0.45
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

a. The emissions are estimated using CalEEMod version 2016.3.2.
b. Tank relocations are expected to occur during the first 90 days after the rule is adopted. Three tank relocations are expected to occur on a peak day.
c. Appendix C contains the detailed calculations.
d. Subsequent to the release of the Draft EA, modifications were made to PAR 1469. However, the calculations in the Draft EA for construction activities relative to relocations were not affected by the modifications made to PAR 1469. Thus, the calculations in this table remain unchanged from the Draft EA and demonstrate that no significant adverse air quality impacts during tank relocation construction activities would be expected to occur.

[10] CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects.

[11] In general, no or limited construction emissions from grading are anticipated because modifications or installation of new APCD would occur at existing industrial/commercial facilities and, therefore, would not be expected to require digging, earthmoving, grading, etc.

Table 2-5
Peak Daily Construction Emissions During APCD and PTE Installations[a, b, c, & d]

Construction Activity	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
12 APCD installations occurring on a peak day	7.17	42.02	46.60	0.08	4.30	3.13
2 PTE installations occurring on a peak day	1.20	7.00	7.80	0.01	0.72	0.52
Total Peak Daily Construction Emissions	8.37 ~~7.17~~	49.02 .~~42.02~~	54.40 ~~46.60~~	0.09 ~~0.08~~	5.02 ~~4.30~~	3.65 ~~3.13~~
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

a. The emissions are estimated using CalEEMod version 2016.3.2.
b. APCD installation is expected to occur one year after the rule is adopted and therefore, these~~is~~ activities have~~s~~ no overlap with tank relocation construction work presented in Table 2-4. ~~It is conservatively~~The analysis assumes~~d~~ that on a ~~in the~~ peak day, there will be 12 APCD and two PTE installations ~~work~~ among PAR1469 affected facilities. For the purpose of this analysis, the construction needed to build two PTEs is equivalent to constructing 2 APCDs.
c. Appendix C contains the detailed calculations.
d. Subsequent to the release of the Draft EA, modifications were made to PAR 1469 and the calculations were revised to include construction emissions from two PTEs. Nonetheless, even with the additional emissions occurring on a peak day during construction, no significant air quality impacts during construction would be expected to occur.

The construction impact analysis assumes that it will take one week each to complete one APCD installation or one tank relocation. However, the actual construction time could be substantially less than one week for some facilities.

Based on the construction schedule in Table 2-3 and Figure 2-1, the peak daily emissions are expected to occur over a five-month period from ~~10/1/2019~~ March 2020 to ~~4/1/2020~~ September 2020~~, which assuming up to 12 APCD installations would occur on a peak day~~. Further, given the duration of the construction that each facility may undergo and the total 41-month timeframe for all the affected facilities to comply with the requirements in PAR 1469, the construction phases for some facilities were assumed to overlap which resulted in 12 APCD and two PTE installations occurring on a peak day. Installation of the APCDs and PTEs is expected to occur starting from the second year after the rule is adopted~~ and up to 12 APCD is expected to occur on a peak day~~. Tank relocations are expected to occur during the first 90 days after the rule is adopted and up to three tank relocations are expected to occur on a peak day.

As shown in Tables 2-4 and 2-5, the air quality impacts due to construction from implementing PAR1469 are expected to be less than significant.

Operational Impacts

As explained previously, secondary air quality operational impacts are expected to occur from the following activities: maintenance of the APCDs and conducting periodic source testing. Total operational emissions were estimated using CARB's EMFAC2014[12] for following mobile sources: trucks for waste disposal, filter replacement, and leak detection, and vehicles to transport workers to conduct source testing. Currently, some of the affected facilities have existing APCDs that collect PM ~~which is~~ considered to be hazardous and as such, the PM must~~requires to~~ be periodically sent to a certified landfill or recycling facility for proper disposal or recycling. After PAR 1469 is implemented, additional PM is expected to be collected by the APCDs, but the affected facilities are expected to continue their existing practices for handling their waste. Therefore, it is not expected to have increased waste disposal trucks occurring on a peak day due to implementing PAR 1469.

PAR 1469 would also require source testing of each APCD that is installed. In order to conduct source testing, additional vehicle trips to and from the facility on the day of source testing are expected to occur to transport personnel and equipment for the source test. The APCD maintenance work and source testing is expected to be conducted at 89 ~~98~~ facilities and the following vehicles are assumed to be required per source test each year: one medium duty truck for waste disposal, filter replacement, or filter leak inspection truck; and one source testing vehicle.

Of the 89 ~~98~~ facilities, four facilities are assumed to conduct maintenance of the APCDs and four facilities are assumed to conduct source testing on the same day, such that 4 trucks and 4 vehicles would be operating on a peak day. In addition, a round trip distance of 40 miles was assumed for every on-road vehicle used during operation. The air quality impacts during operation are summarized in Table 2-6. The detailed spreadsheets with the assumptions used for this analysis are provided in Appendix C.

[12] The EMFAC emissions model is developed and used by CARB to assess emissions from on-road vehicles including cars, trucks, and buses in California. EMFAC2014 was approved by U.S. EPA on Dec. 14, 2015. https://www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles

Table 2-6
Peak Daily Operational Emissions[a, b, c, d, e, & f]

Key Activities During Operation	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
Conduct source testing	0.01	0.03	0.39	0.00	0.07	0.72
Conduct maintenance on APCDs	0.01	0.03	0.10	0.00	0.13	0.04
Total Peak Daily Operational Emissions	0.02	0.06	0.48	0.00	0.20	0.75
SIGNIFICANCE THRESHOLD FOR ~~DURING~~ OPERATION	55	55	550	150	150	55
SIGNIFICANT?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

a. It is conservatively assumed in the peak day, there will be an additional four source test vehicles (LDA) and four maintenance trucks (MDT) to all PAR 1469 affected facilities.
b. It is conservatively assumed in the peak year, there will be an additional 89 ~~98~~ source test vehicles (LDA) and 89 ~~98~~ maintenance trucks (MDT) to all PAR 1469 affected facilities.
c. The increased medium duty truck is for the additional waste disposal truck, filter replacement, filter leak inspection and other maintenance work for the APCDs.
d. Each LDA and each MDV is assumed to travel a round trip distance of 40 miles.
e. See Appendix C for detailed calculations.
f. Subsequent to the release of the Draft EA, modifications were made to PAR 1469. However, the calculations in the Draft EA for operation were not affected by the modifications made to PAR 1469. Thus, the calculations in this table remain unchanged from the Draft EA and demonstrate that no significant adverse air quality impacts during operation activities would be expected to occur.

As indicated in Table 2-6, operational emissions anticipated from implementing PAR 1469 do not exceed any significance threshold. Therefore, the operational air quality impact is considered less than significant. The proposed project is not expected to result in significant adverse operational criteria pollutant emission impacts.

Construction and Operation Overlap Impact

Given the number of affected facilities and the varying requirements for each affected facility to comply with PAR 1469 requirements, there is a possibility that there will be an overlap of construction activities and corresponding construction emissions occurring at some facilities with operational activities and corresponding operational emissions occurring at other facilities. Based on PAR 1469 requirements, the overlap will occur from the date of adoption of PAR 1469 until September ~~7/1/~~2021 which is when the last APCD installation work is expected to be completed. The most conservative maximum emissions during this overlap period are estimated in Table 2-7 which adds the peak daily construction emissions from Tables 2-4 and 2-5 and the peak daily operational emissions from Table 2-6 and compares the total to the operational emission significance thresholds which are lower than the significance thresholds during construction. Also, according to SCAQMD policy, the peak daily emissions from the construction and operation overlap period should be estimated and compared to the SCAQMD's CEQA significance thresholds for operation.

Table 2-7
Peak Daily Emissions in Construction and Operation Overlap Phase[a, b, & c]

Construction and Operation Overlap Phase	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
Peak Construction Emissions	8.37 ~~7.17~~	49.02 ~~42.02~~	54.40 ~~46.60~~	0.09 ~~0.08~~	5.02 ~~4.30~~	3.65 ~~3.13~~
Peak Operational Emissions	0.02	0.06	0.48	0.00	0.20	0.75
Total Emissions	8.39 ~~7.19~~	49.08 ~~42.08~~	54.88 ~~47.08~~	0.09 ~~0.08~~	5.22 ~~4.50~~	4.40 ~~3.88~~
SIGNIFICANCE THRESHOLD FOR OPERATION	55	55	550	150	150	55
SIGNIFICANT?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

a. The maximum construction impact during the overlap phase is conservatively assumed to be the peak daily construction emissions from Table 2-3.
b. The maximum operational impact during the overlap phase is conservatively assumed to be the peak daily operational emissions from Table 2-4.
c. Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the peak daily construction emissions presented in Table 2-5. Even with the revised construction calculations, the overlapping construction and operation activities demonstrates that no significant adverse air quality impacts would be expected to occur.

As indicated in Table 2-7, the peak daily emissions that are expected to occur during the construction and operational overlap period anticipated from implementing PAR 1469 do not exceed any of the SCAQMD's CEQA air quality significance thresholds. Therefore, the air quality impacts from construction and operation overlap are considered to be less than significant. In conclusion, the proposed project is not expected to result in significant adverse air quality impacts during the construction and operation overlap period.

Indirect Criteria Pollutant Emissions from Electricity Consumption
Indirect criteria pollutant and GHG emissions are expected from the generation of electricity to operate new APCDs that occurs off-site at electricity generating facilities (EGFs). Emissions from electricity generating facilities are already evaluated in the CEQA documents for EGF projects when they are built or modified. The analysis in Section VI - Energy b), c) and d) demonstrates that there is sufficient capacity from power providers for the increased electricity consumption needed to implement PAR 1469.

Under the SCAQMD's RECLAIM program, EGFs were provided or purchased annual allocations of NOx and SOx emissions that decline over time and these allocations are generally sufficient to cover the EGFs current customer usage and projected future growth. ~~However,~~ While PAR 1469 will cause an increase in energy use and a corresponding increase in emissions from the EGFs providing additional electricity (see Section VI - Energy for the analysis of the energy impacts), the projected minimal increase in NOx and SOx emissions would be expected to fall within the range of the EGF's annual allocations for these pollutants. If the annual allocations are not sufficient, a~~A~~ny new potential NOx and SOx emission increases at the EGFs beyond the annual allocations would need to be offset under the RECLAIM program in accordance with SCAQMD Regulation XX and increases in other pollutants would need to be offset under the New Source Review program in accordance with SCAQMD Regulation XIII – New Source Review. Thus, air

quality impacts from electricity consumption are anticipated to be less than significant, because they were either previously evaluated and offset or will be evaluated under the New Source Review and additional offsets would be applied.

III. c) Less Than Significant Impact.

Cumulatively Considerable Impacts

Based on the foregoing analysis, since project-specific criteria pollutant air quality impacts from implementing PAR 1469 would not be expected to exceed the air quality significance thresholds in Table 2-1, cumulative air quality impacts are also expected to be less than significant. SCAQMD cumulative significance thresholds are the same as project-specific significance thresholds. Therefore, potential adverse impacts from implementing PAR 1469 would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

The SCAQMD guidance on addressing cumulative impacts for air quality is as follows: "As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR." "Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."[13]

This approach was upheld by the court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the South Coast Air Quality Management District's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines Section 15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although the project will contribute additional air pollutants to an existing nonattainment area, these increases are below the significance criteria…". "Thus, we conclude that no fair argument exists that the Project will cause a significant unavoidable cumulative contribution to an air quality impact." ~~As in *Chula Vista* and *Rialto Citizens for Responsible Growth*, here the SCAQMD has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899.~~ In *Rialto Citizens for Responsible Growth*, the court upheld the SCAQMD's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively considerable. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. As in *Chula Vista* and *Rialto Citizens for Responsible Growth*, here the SCAQMD has demonstrated, when using accurate and

[13] SCAQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf.

appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. Thus, it may be concluded that the proposed project will not contribute to a significant unavoidable cumulative air quality impact.

III. d) Less Than Significant Impact. Diesel particulate matter (DPM) is considered a carcinogenic and chronic toxic air contaminant (TAC). Since the diesel equipment used during the construction of the tank relocation or APCD installation is expected to be a short-term project (i.e. no more than six months at any facility), a Health Risk Assessment (HRA) was not conducted. In addition, implementation of PAR 1469 is expected to create an environmental benefit by reducing toxic impacts by controlling fugitive PM emissions (containing hexavalent chromium) during operation. The analysis in Section III. b) and f) concluded that the quantity of pollutants that may be generated from implementing the proposed project would be less than significant during construction, operation, and the construction and operation overlap period. Thus, the quantity of pollutants that may be generated from implementing PAR 1469 would not be considered substantial, irrespective of whether sensitive receptors are located near the affected facilities. For these reasons, implementation of PAR 1469 is not expected to expose sensitive receptors to substantial pollutant concentrations. Therefore, no significant adverse air quality impacts to sensitive receptors are expected from implementing PAR 1469.

III. e) Less Than Significant Impact.

Odor Impacts

As previously explained, this analysis assumes that new or modified APCDs will be constructed and some tanks will be relocated at the affected facilities and these facilities already operate diesel equipment and trucks. With regard to odors, currently, for all diesel-fueled equipment and vehicles, the diesel fuel is required to have a low sulfur content (e.g., 15 ppm by weight or less) in accordance with SCAQMD Rule 431.2 – Sulfur Content of Liquid Fuels. Such fuel is expected to minimize odor. The operation of construction equipment will occur within the confines of existing affected facilities. Dispersion of diesel emissions over distance generally occurs so that odors associated with diesel emissions may not be discernable to offsite receptors, depending on the location of the equipment and its distance relative to the nearest offsite receptor. Further, the diesel trucks that will be operated onsite will not be allowed to idle longer than five minutes per any one location in accordance with the CARB idling regulation, so odors from these vehicles would not be expected for a prolonged period of time. Therefore, the addition of several pieces of construction equipment and trucks that will operate intermittently, over a relatively short period of time, are not expected to generate diesel exhaust odor substantially greater than what is already typically present at the affected facilities.

Operation of the new APCDs are also not expected to generate any new odors because these devices are electric and the process of collecting the metal PM in enclosed bags, containers and filters would mean that these odorous materials would be captured, such that the existing odor profiles at the affected facilities would be reduced. PAR 1469 prohibits the operation of Tier III tanks outside of a building and requires all affected facilities to conduct operations of ~~at~~ hexavalent chromium-containing tanks inside the building. The building enclosure requirements in PAR 1469 will also reduce odors at these facilities. Thus, PAR 1469 is not expected to create significant adverse objectionable odors during construction or operation. Since no significant impacts were identified for this issue, no mitigation measures for odors are necessary or required.

III. g) and h) Less Than Significant Impact.

Greenhouse Gas (GHG) Impacts

Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming. State law defines GHG to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) (Health and Safety Code Section 38505(g)). The most common GHG that results from human activity is CO2, followed by CH4 and N2O.

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. However, a study conducted on the health impacts of CO2 "domes" that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects[14].

The analysis of GHGs is different than the analysis of criteria pollutants for the following reasons. For criteria pollutants, the significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health (e.g., one-hour and eight-hour standards). Since the half-life of CO2 is approximately 100 years, for example, the effects of GHGs occur over a longer term. They affect the global climate over a relatively long timeframe. As a result, the SCAQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (i.e., annual emissions). GHG emissions are typically considered to have a cumulative impact because they contribute to global climate effects.

GHG emission impacts from implementing PAR 1469 were calculated at the project-specific level during construction and operation. For example, installation and operation of APCD has the potential to increase the use of fuel during construction and electricity during operation which will in turn increase CO_2 emissions.

The SCAQMD convened a Greenhouse Gas CEQA Significance Threshold Working Group to consider a variety of benchmarks and potential significance thresholds to evaluate GHG impacts. On December 5, 2008, the SCAQMD adopted an interim CEQA GHG Significance Threshold for projects where SCAQMD is the lead agency (SCAQMD 2008). This GHG interim threshold is set at 10,000 metric tons of CO_2 equivalent emissions (CO_2e) per year (MT/yr). Projects with incremental increases below this threshold will not be cumulatively significant ~~considerable~~.

[14] Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at: http://news.stanford.edu/news/2010/march/urban-carbon-domes-031610.html.

Table 2-8 summarizes the GHG analysis which shows that PAR 1469 may result in the generation of 6.21~~6.81~~ amortized[15] MT/yr of CO2e emissions during construction and 3.29 MT/yr of CO2e emissions from mobile sources and 82.90 MT/yr of CO2e emissions from electricity usage during operation from all the affected facilities for a total of 93.00 MT/yr of CO2e emissions, which is less than the SCAQMD significance threshold of 10,000 MT/yr of CO2e. The detailed calculations of project GHG emissions can be found in Appendix C.

Table 2-8
GHG Emissions From 89 ~~98~~ Affected Facilities[16]

Activity	CO_2e (MT/year[a])
Construction [b]	6.21 ~~6.81~~
Operation – mobile sources	3.29
Operation – electricity usage	82.90
Total Project Emissions	93.00
SIGNIFICANCE THRESHOLD	**10,000**
SIGNIFICANT?	**NO**

[a.] 1 metric ton = 2,205 pounds
[b.] GHGs from short-term construction activities are amortized over 30 years

Thus, as shown in Table 2-8 the SCAQMD's GHG significance threshold for industrial sources will not be exceeded. For this reason, implementing the proposed project is not expected to generate significant adverse cumulative GHG air quality impacts. Further, PAR 1469 is not expected to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG gases.

Conclusion
Based upon these considerations, significant air quality and GHG emissions impacts are not expected from implementing PAR 1469. Since no significant air quality and GHG emissions impacts were identified, no mitigation measures are necessary or required.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that caused some of the calculations in this section to be revised. Staff has reviewed the modifications to PAR 1469 and the revised calculations and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft EA. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects.

[15] GHGs from short-term construction activities are amortized over 30 years. To amortize GHGs from temporary construction activities over a 30-year period (est. life of the project/ equipment), the amount of CO_2e emissions during construction are calculated and then divided by 30.

[16] Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the peak daily construction GHG emissions. Even with the revised construction GHG calculations, and the overlap of construction and operation activities, no significant adverse GHG impacts are expected to occur.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Significance Criteria

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

IV. a), b), c), & d) No Impact. The proposed project does not require the acquisition of land or building new structures, or construction on green land to comply with the provisions of PAR 1469. The sites of the affected facilities that would be subject to PAR 1469 currently do not support riparian habitat, federally protected wetlands, or migratory corridors because they are existing developed and established facilities currently used for industrial purposes. Additionally, special status plants, animals, or natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service are not expected to be found on or in close proximity to the affected facilities because the affected facilities are in existing industrial, commercial or mixed land use areas. Therefore, PAR 1469 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely in the District.

Compliance with PAR 1469 is expected to reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations at the affected facilities, which would be expected to improve, not worsen, present conditions of plant and animal life, since previously uncontrolled hexavalent chromium emissions would be captured and disposed of properly before they could have the potential to impact plant and animal life. PAR 1469 does not require acquisition of additional land or further conversions of riparian habitats or sensitive natural communities where endangered or sensitive species may be found. Finally, the APCDs contemplated as part of implementing PAR 1469 would be installed at existing facilities and would

not be built on or near a wetland or in the path of migratory species. Therefore, PAR 1469 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely in the SCAQMD.

IV. e) & f) No Impact. The proposed project is not envisioned to conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans. Land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by implementing PAR 1469. Additionally, PAR 1469 would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, and would not create divisions in any existing communities because all activities associated with complying with PAR 1469 would occur at existing facilities in previously disturbed areas which are not typically subject to Habitat or Natural Community Conservation Plans.

The SCAQMD, as the Lead Agency, has found that, when considering the record as a whole, there is no evidence that implementing of PAR 1469 would disturb habitat, or would have potential for any new adverse effects on wildlife resources or the habitat upon which wildlife depends. Accordingly, based upon the preceding information, the SCAQMD has, on the basis of substantial evidence, rebutted the presumption of adverse effect contained in Title 14 of the California Code of Regulations Section 753.5 (d) - Projects Eligible for a No Effect Determination.

Conclusion
Based upon these considerations, significant biological resource impacts are not expected from implementing PAR 1469. Since no significant biological resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5?	☐	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource, site, or feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☐	☐	☑
e)	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074?	☐	☐	☐	☑

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance, or tribal cultural significance to a community or ethnic or social group or a California Native American tribe.
- Unique paleontological resources or objects with cultural value to a California Native American tribe are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck

trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

V. a), b), c), d) & e) No Impact. There are existing laws in place that are designed to protect and mitigate potential impacts to cultural resources. For example, CEQA Guidelines state that generally, a resource shall be considered "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources, which include the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
- Has yielded or may be likely to yield information important in prehistory or history (CEQA Guidelines §15064.5).

Buildings, structures, and other potential culturally significant resources that are less than 50 years old are generally excluded from listing in the National Register of Historic Places, unless they are shown to be exceptionally important. For any of the buildings or structures that may be affected by PAR 1469 that are older than 50 years, they are buildings that are currently utilized for industrial purposes and would generally not be considered historically significant since they would not have any of the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. Therefore, PAR 1469 is not expected to cause any impacts to significant historic cultural resources.

Construction-related activities are expected to be confined within the existing footprint of the affected facilities that have already been fully developed and paved, PAR 1469 is not expected to require physical changes to the environment which may disturb paleontological or archaeological resources. Furthermore, it is envisioned that these areas are already either devoid of significant cultural resources or whose cultural resources have been previously disturbed. Therefore, PAR 1469 has no potential to cause a substantial adverse change to a historical or archaeological resource, directly or indirectly to destroy a unique paleontological resource or site or unique geologic feature, or disturb any human remains, including those interred outside formal cemeteries. Implementing of PAR 1469 is, therefore, not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources in the District.

PAR 1469 is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, PAR 1469 is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. For these reasons, PAR 1469 is not expected to cause any substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

As part of releasing this CEQA document for public review and comment, the SCAQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per

Public Resources Code Section 21080.3.1(b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project.

In the event that a Tribe submits a written request for consultation during this 30-day period, the SCAQMD will initiate a consultation with the Tribe within 30 days of receiving the request in accordance with Public Resources Code Section 21080.3.1(b). Consultation ends when either: 1) both parties agree to measures to avoid or mitigate a significant effect on a Tribal Cultural Resource and agreed upon mitigation measures shall be recommended for inclusion in the environmental document [see Public Resources Code Section 21082.3(a)]; or, 2) either party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached [see Public Resources Code Section 21080.3.2(b)(1)-(2) and Section 21080.3.1(b)(1)].

Conclusion

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing PAR 1469. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI.	**ENERGY.** Would the project:				
a)	Conflict with adopted energy conservation plans?	☐	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☐	☑
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☐	☑
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☐	☑
e)	Comply with existing energy standards?	☐	☐	☐	☑

Significance Criteria

Impacts to energy resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

VI. a) & e) No Impact. PAR 1469 is not expected to conflict with any adopted energy conservation plans or violate any energy conservation standards because existing facilities would be expected to continue implementing any existing energy conservation plans that are currently in place regardless of whether PAR 1469 is implemented.

PAR 1469 is not expected to cause new development because it does not require new facilities to be built. While PAR 1469 will primarily apply to existing facilities, it will also apply to any new facilities that may be built in the future. However, SCAQMD staff is not aware of any new chromium electroplating and chromic acid anodizing operations facilities planned to be constructed in the immediate future and is unable to speculate, predict, or forecast, when, if any, would be built in the long-term. Any energy resources that may be necessary to install building enclosures, air pollution control equipment, conduct source tests, conduct monitoring and employ housekeeping would be used to achieve reductions in hexavalent chromium from chromium electroplating and chromic acid anodizing operations facilities, and therefore, would not be using non-renewable resources in a wasteful manner. The air quality benefits that would be expected to occur as a result of implementing these activities would not require utilities that would provide additional electricity and natural gas to the affected facilities to substantially alter power or natural gas system because any additional energy needed to implement PAR 1469 can be provided from existing supplies. For these reasons, PAR 1469 would not be expected to conflict with energy conservation plans or existing energy standards, or use non-renewable resources in a wasteful manner.

VI. b), c) & d) Less Than Significant Impact. PAR 1469 will increase the use of electricity from the operation of newly installed APCDs, including the blower and filtration systems needed to create enough flow rate to the filtration system. Diesel fuel would be consumed by construction equipment during construction phase. Gasoline fuel would be consumed by vehicles used during construction and operation. No natural gas will be needed during construction. The following sections evaluate the various forms of energy sources that may be affected by the implementation of PAR 1469.

Construction

During construction, diesel and gasoline fuel will be consumed by portable construction equipment (e.g., welders, forklifts, and etc.) needed to install the APCDs and to relocate the tanks and by construction workers' vehicles and vendor trucks traveling to and from each facility. To estimate "worst-case" energy impacts associated with construction activities, SCAQMD staff took the total construction SOx emissions to scale to the total diesel fuel usage since the estimated SOx emissions during construction are derived from CARB's OFFROAD2011 and EMFAC2014 models. These two models both calculate the SOx emissions based on the mass-balanced method and the sulfur content in the fuel. Therefore, the total diesel fuel consumption from construction associated equipment and trucks can be estimated by scaling the SOx emissions from one single piece of construction equipment with known diesel fuel usage in gallons per day to the total construction SOx emissions. Appendix C contains the assumptions and calculations for estimating fuel usage associated with construction.

The fuel usage per construction worker commute round trips was calculated by assuming that each workers' gasoline vehicle would get a fuel economy rate of approximately 20 miles per gallon and would travel 29.4 miles round trip to and from the construction site in one day based on default values in CalEEMod. Table 2-9 lists the projected energy impacts associated with the construction from all affected facilities.

Table 2-9
Total Projected Fuel Usage for Construction Activities[17]

Fuel Type	Year 2016 Estimated Basin Fuel Demand[a] (mmgal/yr)	Fuel Usage[b] (mmgal)	Total % Above Baseline	Exceed Significance Thresholds?[c]
Diesel	749	0.0085 ~~0.0093~~	0.0011 ~~0.0012~~	No
Gasoline	6,997	0.0012	0.00002	No

[a] California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets, 2017 California Energy Commission (http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html). [Accessed February 6, 2018.]
[b] Estimated peak fuel usage from construction activities. Diesel usage estimates are based on the usage of portable construction equipment. Gasoline usage estimates are derived from construction workers' and vendor vehicle daily trips to and from work.
[c] SCAQMD's energy threshold for both types of fuel used is 1% of fuel supply.

The 2016 California Annual Retail Fuel Outlet Report Results from the California Energy Commission (CEC) state that 749 million gallons of diesel and 6,997 million gallons of gasoline were consumed in 2016 in the Basin. Thus, if an additional 9,293 gallons of diesel consumed (0.0012% above baseline) and 1,248 gallons of gasoline are consumed (0.00002% above baseline) during construction, they are below SCAQMD's 1% significance threshold for fuel supply. No significant adverse impact on fuel supplies would be expected.

Operation

Electricity Use
SCAQMD staff estimates there will be additional electricity usage for the new or modified APCDs, including the blower and filtration, which are expected to be powered by electricity. The analysis assumes that 132 ~~145~~ additional blowers would be needed to operate the APCD at 89 ~~98~~ facilities. The additional electricity consumption from operation is estimated and presented in Table 2-10. Electrical energy impacts associated with project operation are considered less than significant.

Table 2-10
PAR 1469 Additional Electricity Consumption from Operation[18]

Energy Use	Consumption (GW-h)
APCD: Blowers and Filtration System (100 bhp @ 0.001788 GW-h) x 132 ~~145~~	0.236 ~~0.259~~
SCAQMD Basin Electricity End Use Consumption [a,b]	120,210
Total Impact % of Capacity	**0.0002**
SIGNIFICANT?[c]	**NO**

[a] Final 2016 SCAQMD AQMP Chapter 10, 2012 Electricity Use in GWh (http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp)
[b] It is assumed the energy supply is equal to energy consumption.
[c] SCAQMD's energy threshold for electricity is 1% of supply.

[17] Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the peak daily fuel use during construction. Even with the revised fuel use calculation, the analysis demonstrates that no significant adverse fuel impacts would be expected to occur.
[18] Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the projected electricity consumption. Even with the revised electricity calculation, the analysis demonstrates that no significant adverse electricity impacts would be expected to occur.

Gasoline Use From Operational Vehicles

Additional vehicle trips are expected to be needed for the additional source testing and APCD maintenance work (filter replacement or inspection, and disposal of waste). Each vehicle is assumed to drive approximately 40 miles, round trip, with a fuel economy of approximately 20 miles per gallon (mpg) for LDA/LDT and 10 mpg for MDT. As previously explained in Section III - Air Quality and Greenhouse Gases, by assuming that each affected 89 ~~98~~ facility will need one LDA/LDT and one MDT per year and the corresponding annual total gasoline use would be approximately 588 gallons per year.

The 2016 California Annual Retail Fuel Outlet Report Results from California Energy Commission states that 6,997 million gallons of gasoline are consumed in 2016 in the Basin. Thus, based on the foregoing analysis and the summary presented in Table 2-11, an additional 588 gallons of gasoline consumed per year of operation at all 89 ~~98~~ affected facilities is not expected to have a significant adverse impact on fuel supplies.

Table 2-11
Annual Total Projected Fuel Usage for Operational Activities[19]

Type of Equipment	Gasoline (gal/yr)
LDA/LDT	178 ~~196~~
MDT	356 ~~392~~
Total:	534 ~~588~~
Year 2016 Estimated Basin Fuel Demand (gal/yr) [a]	6,997,000,000
Total % Above Baseline	0.00001
SIGNIFICANT?[b]	**NO**

[a] California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets, 2017 California Energy Commission (http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html). [Accessed February 6, 2018.]

[b] SCAQMD's energy threshold for fuel used is 1% of fuel supply.

Natural Gas Impacts

None of the APCD requires natural gas for operation as these units require electricity. Similarly, none of the vehicles that may be needed to deliver supplies or haul away waste would require natural gas. Thus, no natural gas would be required to implement PAR 1469.

Based on the foregoing analysis, the operational-related activities associated with the implementation of PAR 1469 are necessary and will not use energy in a wasteful manner and will not result in substantial depletion of existing energy resource supplies. Further, as shown in the preceding analysis, the quantities of electricity, gasoline and diesel fuel needed to implement PAR 1469 would not create a significant demand of energy when compared to existing supplies. Thus, there are no significant adverse energy resources impacts associated with the implementation of PAR 1469.

[19] Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the fuel use during operation. Even with the revised fuel use calculation, the analysis demonstrates that no significant adverse fuel impacts would be expected to occur.

Conclusion

Based upon these considerations, significant adverse energy impacts are not expected from implementing PAR 1469. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that caused some of the calculations in this section to be revised. Staff has reviewed the modifications to PAR 1469 and the revised calculations and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft EA. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII.	**GEOLOGY AND SOILS.** Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑
	• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑
	• Strong seismic ground shaking?	☐	☐	☐	☑
	• Seismic–related ground failure, including liquefaction?	☐	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

Significance Criteria

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction, or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

VII. a), b), c), d), & e) No Impact. Since PAR 1469 would result in installing or modifying APCDs, relocating tanks, and installing building enclosures activities at existing facilities located in developed, mostly industrial and commercial settings, no site preparation is anticipated that could adversely affect geophysical conditions in the District. The proposed project does not cause or require a new facility to be constructed.

Southern California is an area of known seismic activity. As part of the issuance of building permits, local jurisdictions are responsible for assuring that the Uniform Building Code is adhered to and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represents the foundation condition at the site. The Uniform Building Code requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction.

Accordingly, the installation of new or modification of existing APCDs at existing facilities to comply with PAR 1469 is expected to conform to the Uniform Building Code and all other applicable state and local building codes. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The local city or county is responsible for assuring that the existing affected facilities comply with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some non-structural damage; and, 3) resist major earthquakes without collapse but with some structural and non-structural damage.

The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site. The Uniform Building Code requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction.

Accordingly, existing buildings and equipment, as well as any that may be modified or replaced as a result of PAR 1469, are likely to conform to the Uniform Building Code and all other applicable state codes in effect at the time they were constructed. Thus, PAR 1469 would not alter the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structures to the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated.

Since PAR 1469 would only require facilities to install or modify APCDs and to relocate tanks, it does not involve construction activities that will result in substantial soil erosion or the loss of topsoil. Since PAR 1469 will affect existing facilities, it is expected that the soil types present at the affected facilities will not be made further susceptible to expansion or liquefaction. Furthermore, subsidence is not anticipated to be a problem since only minor excavation, grading, or filling activities, if any, are expected to occur at the affected facilities. Additionally, the areas where the existing facilities are located are not envisioned to be prone to new landslide impacts or have unique geologic features since the existing facilities are currently operational. Any new installations or modifications to existing buildings or APCDs would not be expected to increase or exacerbate any existing risks at the affected facility locations. Therefore, because PAR 1469 would not involve locating facilities on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, no impacts are anticipated.

Since PAR 1469 will affect chromium electroplating and chromic acid anodizing operations at existing facilities by requiring the installation of new or the modification of APCDs and relocation of tanks, people or property will not be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal because no additional water will be necessary to upgrade the building enclosures or operate the APCDs. Further, because each affected facility has an existing sewer system the installation of septic tanks or alternative wastewater disposal systems or modifications to the existing sewer systems would not be necessary. Thus, implementation of

PAR 1469 will not adversely affect soils associated with a installing a new septic system or alternative wastewater disposal system or modifying an existing sewer.

Conclusion

Based upon these considerations, significant adverse geology and soils impacts are not expected from the implementation of PAR 1469. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	☐	☐	☑	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑
h)	Significantly increased fire hazard in areas with flammable materials?	☐	☐	☑	☐

Significance Criteria

Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

VIII. a) & b) Less than Significant Impact. PAR 1469 may increase the amount of hexavalent chromium that is captured by APCDs, in lieu of being directly emitted into the air. Additional metal PM emissions will also be captured through facility owners/operators employing additional housekeeping practices on a regular basis. Overall, the capture of these metal PM emissions would reduce health risks to the public and the environment.

Spent metal and captured metal waste is currently transported from affected facilities to offsite facilities that either recycle or dispose of the metal waste at a hazardous waste landfill. Once PAR 1469 is implemented and the building enclosures upgrades, tank relocations, and APCD installations are completed, the additional metals that will be captured by the new APCDs would continue to be either recycled off-site or hauled away to a hazardous waste landfill, which is what the affected facilities are currently doing. Hence, no new significant hazards are expected to the public or environment through the continued routine transport, disposal or recycling of metal waste generated at affected facilities.

Therefore, PAR 1469 is not expected to create a significant hazard to the public or environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment.

VIII. c) Less than Significant Impact. There are at least 16 facilities that are located within a one-quarter mile of a school. These facilities are identified in Appendix D. PAR 1469, if implemented, would reduce human exposure to hexavalent chromium by requiring metal PM emissions from chromium electroplating and chromic acid anodizing operations to be collected and vented to APCDs instead of being vented to the atmosphere. Other proposed requirements will also reduce those emissions. All of the affected facilities, including the 16 that are located within one-quarter mile of a school, are expected to continue to take the appropriate and required actions to ensure proper handling of existing quantities of hazardous or acutely hazardous materials, substances or wastes that are currently generated. Further, any increased quantities that may be collected at each facility by efficient collection systems and APCDs that will be employed as a result of PAR 1469, would also be expected to be handled in the same or similar manner regardless of each facility's proximity to a school because PAR 1469 does not include new requirements or alter existing requirements for hazardous waste disposal.

VIII. d) No Impact. Government Code §65962.5 refers to hazardous waste handling practices at facilities subject to the Resources Conservation and Recovery Act (RCRA). PAR 1469 would affect 24 facilities that are identified on lists of California Department of Toxics Substances Control hazardous waste facilities per Government Code §65962.5. These facilities are identified in Appendix D. However, compliance with PAR 1469 will ensure that metal PM, which may be toxic and hazardous, will be captured by APCDs. The more material that is captured, the less that will be emitted directly to the atmosphere. Currently, metal PM waste is stored and transported in closed containers and PAR 1469 would not alter existing or add new requirements to change how the metal waste is stored while awaiting to be transported off-site to a recycling facility or a hazardous waste landfill. Hazardous wastes from the existing facilities are required to be managed in accordance with applicable federal, state, and local rules and regulations and compliance with these regulations is expected to continue after PAR 1469 is implemented. Therefore, compliance with PAR 1469 would not create a new significant hazard to the public or environment.

VIII. e) No Impact. Federal Aviation Administration regulations, 14 CFR Part 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace, provide information regarding the types of projects that may affect navigable airspace. Projects may adversely affect navigable airspace if they involve construction or alteration of structures greater than 200 feet above ground level within a specified distance from the nearest runway or objects within 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each one foot vertically from the nearest point of the runway).

Construction activities from implementing the proposed project are expected to occur within the existing confines of the affected facilities. Appendix D identifies 17 facilities that are located within two miles of an airport. However, the installation of APCDs, the upgrades of building enclosures, and the relocation of tanks are expected to be conducted in accordance with all appropriate building, land use and fire codes and any new installations or structures are expected to be well below the height relative to the elevation of existing flight patterns so as to not interfere with plane flight paths consistent with 14 CFR Part 77. Such codes are designed to protect the public from hazards associated with normal operation. Therefore, the proposed project is not expected to result in a safety hazard for people residing or working in the area of the affected facilities even if construction would occur within the vicinity of an airport. Therefore, if the owner/operator of these 17 facilities modifies ~~to~~ their facilities to comply with PAR 1469, the

modifications would not be expected to result in a safety hazard for people residing or working in the project area even within the vicinity of an airport.

VIII. f) No Impact. Health and Safety Code Section 25506 et seq. specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the emergency release or threatened release of a hazardous material. Business emergency response plans generally require the following:

- Identification of individuals who are responsible for various actions, including reporting, assisting emergency response personnel and establishing an emergency response team;
- Procedures to notify the administering agency, the appropriate local emergency rescue personnel, and the California Office of Emergency Services;
- Procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
- Procedures to notify the necessary persons who can respond to an emergency within the facility;
- Details of evacuation plans and procedures;
- Descriptions of the emergency equipment available in the facility;
- Identification of local emergency medical assistance; and,
- Training (initial and refresher) programs for employees in:
    1. The safe handling of hazardous materials used by the business;
    2. Methods of working with the local public emergency response agencies;
    3. The use of emergency response resources under control of the handler;
    4. Other procedures and resources that will increase public safety and prevent or mitigate a release of hazardous materials.

In general, every county or city and all facilities using a certain amount of hazardous materials are required to formulate detailed contingency plans to eliminate, or at least minimize, the possibility and effect of fires, explosion, or spills. In conjunction with the California Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for area and business emergency response plans. These requirements include immediate notification, mitigation of an actual or threatened release of a hazardous material, and evacuation of the emergency area.

Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public (surrounding local communities), but the facility employees as well. The proposed project would not impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. Further, the existing facilities already have an emergency response plan in place, as applicable. While the installation of APCDs, building enclosures, and relocation of tanks may require an update of each affected facility's existing emergency response plan to reflect the new equipment or building modifications, the action of modifying an emergency response plan will not create any

environmental impacts. Thus, PAR 1469 is not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

VIII. g) No Impact. The facilities affected by PAR 1469 are currently located in existing industrial, commercial or mixed land use areas and the physical activities that may be taken to comply with PAR 1469 would occur inside existing property boundaries which are not located near wildlands; therefore, there is no existing risk from wildland fires and implementation of PAR 1469 would not create a new risk.

The proposed project would also not increase the existing risk of fire hazards in areas with flammable brush, grass, or trees since no substantial or native vegetation typically exists on or near the facilities (specifically because they could be a fire hazard). Thus, PAR 1469 is not expected to expose people or structures to wildfires. Therefore, no significant increase in wildland fire hazards is expected at the facilities that would be affected by the proposed project.

VIII. h) Less Than Significant Impact. The Uniform Fire Code and Uniform Building Code set standards intended to minimize risks from flammable or otherwise hazardous materials. Local jurisdictions are required to adopt the uniform codes or comparable regulations. Local fire agencies require permits for the use or storage of hazardous materials and permit modifications for proposed increases in their use. Permit conditions depend on the type and quantity of the hazardous materials at the facility. Permit conditions may include, but are not limited to, specifications for sprinkler systems, electrical systems, ventilation, and containment. The fire departments make annual business inspections to ensure compliance with permit conditions and other appropriate regulations. Further, businesses are required to report increases in the storage or use of flammable and otherwise hazardous materials to local fire departments. Local fire departments ensure that adequate permit conditions are in place to protect against the potential risk of upset. PAR 1469 would not change the existing requirements and permit conditions for the proper handling of flammable materials. Further, PAR 1469 does not contain any requirements that would prompt facility owners/operators to begin using new flammable materials. In addition, the National Fire Protection Association has special designations for deflagrations (e.g., explosion prevention) from metal dust. Therefore, operators of metal activities that require baghouse emission control technologies will also need to select reliable, economical and effective means of explosion control such as baghouse explosion suppression, containment and venting. Additional information pertaining to these types of protective measures is available in Chapter 8 of the *Industrial Ventilation, A Manual for Recommended Practice for Design*, 28th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2013.

Conclusion

Based upon these considerations, significant adverse hazards and hazardous materials impacts are not expected from implementing PAR 1469. Since no significant hazards and hazardous materials impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	☐	☐	☑	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	☐	☐	☐	☑
d)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
e)	Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
g)	Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
h)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐
i)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☑	☐

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.

- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion
PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

IX. a) Less than Significant Impact. PAR 1469 contains requirements for facility owners or operators to conduct chromium electroplating and chromic acid anodizing operations within building enclosures and to vent to APCDs such as HEPA filters when there is a Tier III tank. The APCDs (HEPA filters) do not utilize water as part of their day-to-day functions. Thus, no wastewater will be generated from the use of air pollution control equipment to control emissions from chromium electroplating and chromic acid anodizing activities.

PAR 1469 also contains housekeeping requirements that require facility owners or operators to use approved cleaning methods such as a wet mop, damp cloth, low pressure spray nozzle, wet wash system, or using a high efficiency particulate arrestor (HEPA) vacuum on a daily basis instead of weekly basis. There are 115 facilities that would be required to conduct housekeeping. When employing these housekeeping efforts, PAR 1469 provides facility owners/operators with a choice of using either wet cleaning or dry HEPA vacuuming. If dry HEPA vacuuming is used to comply with the housekeeping requirements, then no water would be needed and no wastewater would be generated.

Nonetheless, wet cleaning has been widely used in many of the affected facilities and PAR 1469 will continue to provide wet cleaning as an option for complying with the housekeeping requirements. For this reason, the analysis assumes that wet cleaning will continue to be employed as a compliant method and if more facilities elect to use wet cleaning, the amount of wastewater generated from wet cleaning would be expected to increase as a result. For any facility owner or operator that chooses to conduct wet cleaning, but that does not currently have a wastewater

treatment system or a wastewater discharge permit, the dirty water resulting from wet cleaning would need to be collected, stored and disposed of as hazardous waste and these facilities would be required to comply with the applicable hazardous waste disposal regulations. Thus, the collected dirty water at these facilities would not be allowed to be discharged as wastewater.

For any affected facility that currently has a wastewater discharge permit, the owner or operator will be required to comply with the permitted effluent discharge concentration and flow limits which means ~~the~~ any wastewater generated from conducting housekeeping via the approved wet cleaning method would likely need to be treated prior to discharge.

In either of these scenarios, wet cleaning conducted in accordance with complying with the housekeeping requirements in PAR 1469 would not be expected to violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable of the Publicly Owned Treatment Works (POTW) or Regional Water Quality Control Board, or otherwise substantially degrade water quality that the requirements are meant to protect.

IX. b) No Impact. As previously explained, water is not needed to operate the APCDs in chromium electroplating and chromic acid anodizing operations facilities. For any facility owners or operators that choose to conduct wet cleaning, any additional water that may be needed would likely be supplied by each facility's current water supplier. Further, the quality of water that would likely be supplied to each affected facility will be potable water since potable water is currently supplied at all of the affected facilities in order to provide drinking water for employees, water for sinks and toilets, and water for any landscaping, if applicable. Should any of the affected facilities have a groundwater well onsite with groundwater pumping rights, the facility owners/operators would not likely choose to use groundwater in lieu of potable water to conduct wet cleaning because groundwater typically contains sand and other soil particles and debris which would not be a suitable quality for conducting wet cleaning. Therefore, implementation of PAR 1469 would not be expected to cause facilities to utilize groundwater for conducting wet cleaning, substantially deplete groundwater supplies, or interfere substantially with groundwater recharge.

IX. c) & d) No Impact. PAR 1469 contains requirements for facility owners or operators that conduct chromium electroplating and chromic acid anodizing operations to install APCDs (HEPA filters) which do not utilize water as part of their day-to-day functions. Thus, no new drainage facilities or alterations to existing drainage facilities will be needed beyond what currently exists at the existing facilities. Similarly, there are no streams or rivers running through the properties of the existing facilities, so any construction activities that may occur as a result of complying with PAR 1469 would not be expected to alter the course of a stream or river. PAR 1469 does not contain any requirements that would change existing drainage patterns or the procedures for how surface runoff water is handled. Thus, PAR 1469 is not expected to have any significant adverse effects on any existing drainage patterns, or cause an increase rate or amount of surface runoff water that would exceed the capacity of the facilities' existing or planned storm water drainage systems.

IX. e), f), & g) No Impact. The facilities affected by PAR 1469 are currently located in existing industrial, commercial or mixed land use areas. Since PAR 1469 would result in construction activities at existing facilities to install or modify APCDs and upgrade buildings enclosures and relocate tanks, some minor site preparation and construction activities may be necessary. However, while some new APCDs may be installed at existing facilities, PAR 1469 would not cause or require a new facility or new housing to be constructed. Further, the installation of new

APCDs and the upgrade of building enclosures would occur on-site at the existing facilities. Therefore, PAR 1469 is not expected to result in placing houses or structures within 100-year flood hazard areas that could create new flood hazards or create significant adverse risk impacts from flooding as a result of failure of a levee or dam or inundation by seiches, tsunamis, or mudflows. As explained in Section IX. h) and i) in more detail below, each facility that elects to conduct wet cleaning may need approximately 10 gallons per day and a corresponding amount (e.g., 10 gallons) of wastewater would be generated. Because the generation of 10 gallons per day of wastewater per facility is a relatively minimal amount of water, implementation of PAR 1469 is not expected to require or result in the construction of new water or wastewater treatment or new storm water drainage, or expansion at any of the affected facilities that elect to conduct wet cleaning.

IX. h) & i) Less than Significant Impact. As explained in Section IX. a), PAR 1469 provides facility owners or operators with a choice of using either wet cleaning or dry HEPA vacuuming. If dry HEPA vacuuming is used to comply with the housekeeping requirements, then no water would be needed and no wastewater would be generated. There are 115 facilities that would be required to conduct housekeeping and some facility operators have indicated to SCAQMD staff during site visits that they would prefer to conduct dry HEPA vacuuming in lieu of wet cleaning because dry HEPA vacuuming would allow for the recycling and sale of the captured precious metals. Further, wet cleaning would be less preferable because it would require the use of water and the treatment of the wastewater generated prior to disposal.

Nonetheless, because PAR 1469 provides wet cleaning as an option for complying with the housekeeping requirements, this analysis assumes that some wet cleaning could occur and wastewater may be generated. SCAQMD staff is unable to predict with any precision the number of facilities that will actually elect to conduct wet cleaning, the amount of water that would be needed, and the amount of wastewater that may be generated as part of conducting wet cleaning to comply with PAR 1469.

To get an idea of the scale of water and water quality impacts that might occur from conducting wet cleaning to comply with PAR 1469, SCAQMD staff use the survey data and observations from the site visits to calculate water use estimates for conducting wet cleaning to comply with PAR 1469 based on a peak daily use. For a conservative analysis, all 115 affected facilities are assumed to conduct wet cleaning on the same day to comply with the housekeeping requirements in PAR 1469. Assuming the maximum amount of water that would be needed per facility is approximately 10 gallons for conducting wet cleaning using an approved method, then an equivalent amount of wastewater (e.g., 10 gallons) may also be generated per facility. As such, 1,150 gallons of water per day may be needed for all 115 facilities (e.g., 115 facilities x 10 gallons per day) to conduct wet cleaning and the same amount of wastewater may be generated. Based on some facility owners and operators indicating the use of dry HEPA vacuuming and some facilities currently already conducting wet cleaning, SCAQMD staff believes that the estimated use of water and the corresponding generation of wastewater on a peak day probably substantially overestimates what the actual impact may be. Also, it is important to keep in mind that the maximum amount of water needed to conduct wet cleaning at one facility was estimated to be 10 gallons per day so any wastewater generated at an individual facility should be well within the existing and projected overall capacity of POTWs located throughout the District whenever the wet cleaning activities are conducted. Therefore, wastewater impacts associated with the disposal of waterborne clean-up waste material generated from implementing PAR 1469 are not expected to significantly adversely affect POTW operations. Further, the small volume of wastewater that may be generated from wet cleaning would not be expected to require or warrant the construction of new or the

expansion of existing wastewater treatment or storm water drainage facilities. Table 2-12 summarizes the projected amount of water that may be needed for the 115 affected facilities to conduct wet cleaning to comply with the housekeeping requirements in PAR 1469.

Table 2-12
Projected Water Demand

PAR 1469 Wet Cleaning Activity	Additional Water Demand on a Peak Day (gal/day)
PAR 1469 Housekeeping Measures	1,150
Significance Threshold for Potable Water:	262,820
SIGNIFICANT FOR POTABLE WATER?	**NO**
Significance Threshold for Total Water:	5,000,000
SIGNIFICANT FOR TOTAL WATER?	**NO**

Therefore, since the estimated potable water demand and total water demand would be less than the significance thresholds for potable and total water, respectively, the water demand impacts that are expected occur from implementing PAR 1469 would be less than significant. Further, existing water supplies are expected to be sufficiently available to serve the proposed project from existing entitlements and resources without the need for new or expanded entitlements because the projected increased water demand is based on a peak day, but that amount of water will not be needed every day. Therefore, PAR 1469 is not expected to have significant adverse water demand impacts.

Conclusion
Based upon these considerations, significant adverse hydrology and water quality impacts are not expected from implementing PAR 1469. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

Significance Criteria

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

X. a) No Impact. PAR 1469 does not require the construction of new facilities, and any physical effects that will result from PAR 1469, will occur at existing facilities located in industrial, commercial, or mixed use areas and would not be expected to go beyond existing boundaries. For this reason, implementation of PAR 1469 would not be expected to physically divide an established community. Therefore, no impacts are anticipated.

X. b) No Impact. Land use and other planning considerations are determined by local governments and no land use or planning requirements will be altered by PAR 1469. All construction and operation activities that are expected to occur as a result of complying with PAR 1469 will occur within the confines of the existing facilities and would not be expected to affect

or conflict with any applicable land use plans, policies, or regulations. Further, no new development or alterations to existing land designations will occur as a result of the implementation of PAR 1469. Therefore, present or planned land uses in the region will not be affected as a result of implementing PAR 1469.

Conclusion

Based upon these considerations, significant adverse land use and planning impacts are not expected from implementing PAR 1469. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES.** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XI. a) & b) No Impact. PAR 1469 would require the installation of new or the modification of existing APCDs, upgrades to building enclosures, and tank relocations. The construction and operation activities necessary to implement PAR 1469 would not require the use of a known

mineral resource. Thus, there are no provisions in PAR 1469 that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state such as aggregate, coal, clay, shale, et cetera, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Conclusion

Based upon these considerations, significant adverse mineral resource impacts are not expected from implementing PAR 1469. Since no significant mineral resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII.	**NOISE.** Would the project result in:				
a)	Exposure of persons to or generation of permanent noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
d)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐

Significance Criteria

Noise impact will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading

building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XII. a), b), & c) Less than Significant Impact. The facilities affected by PAR 1469 are currently located in urbanized industrial, commercial, or mixed land use areas. The existing noise environment at each of the facilities is typically dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and exiting facility premises. Large, potentially noise-intensive construction equipment would be needed temporarily during construction to install new or modify existing APCDs and to relocate tanks as part of implementation of PAR 1469. Operation of the construction equipment would be expected to comply with all existing noise control laws and ordinances. Since the facilities are located in industrial, commercial, or mixed land use areas, which have a higher background noise level when compared to other areas, the noise generated during construction will likely be indistinguishable from the background noise levels at the property line.

Once the construction is complete, the noise from the chromium electroplating and chromic acid anodizing activities currently being conducted outdoors will be located within the enclosures as required by PAR 1469. Thus, the existing noise profile from these activities is expected to be less than what is currently being generated on-site. Similarly, for any facility that installs new APCDs such as HEPA filters, substantial amounts of noise are not typically produced by these types of devices. Due to the attenuation rate of noise based on distance from the source, it is unlikely that noise levels exceeding local noise ordinances from operation new air pollution control equipment would occur beyond a facility's boundaries. Furthermore, OSHA and CAL-OSHA have established noise standards to protect worker health. Furthermore, compliance with local noise ordinances limiting the hours of construction will reduce the temporary noise impacts from construction to sensitive receptors. These potential noise increases are expected to be within the allowable noise levels established by the local noise ordinances for industrial areas, and thus are expected to be less than significant.

XII. d) Less than Significant Impact. As explained previously in Section VIII e), 17 of the affected facilities are located within two miles of an airport. However, the installation of APCDs, the upgrades of building enclosures, and the relocations of tanks are expected to be constructed in accordance with all appropriate building, land use and fire codes and any new installations or structures are expected to be well below the height relative to the elevation of existing flight patterns so as to not interfere with plane flight paths consistent with Federal Aviation Regulation, Part 77. However, compliance with PAR 1469 are not expected to expose people residing or working in the vicinity of those 17 facilities to the same degree of excessive noise levels associated with airplanes because all noise producing equipment at those 17 facilities, as well as at all the other affected facilities, must comply with local noise ordinances and applicable OSHA or CAL-OSHA workplace noise reduction requirements. Therefore, the impacts are expected to be less than significant.

Conclusion

Based upon these considerations, significant adverse noise impacts are not expected from the implementing PAR 1469. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Significance Criteria

Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XIII. a) No Impact. The construction activities associated with PAR 1469 at the affected facilities are relatively minimal such that they would not be expected to require the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population. On a peak day, the analysis assumes that up to 84~~72~~ workers may be needed to perform construction activities to comply with PAR 1469 at all 89 ~~98~~ affected facilities and these workers can be supplied from the existing labor pool in the local Southern California area. Further, the installation of new or the modification of existing APCDs would not be expected to require new employees to

operate and maintain the equipment because several of the facilities already have existing APCDs in place with personnel trained to maintain the equipment. In the event that new employees are hired, the number of new employees hired at any one facility would likely be relatively small, perhaps no more than one or two per facility. The human population within the District is anticipated to grow regardless of implementing PAR 1469. As a result, PAR 1469 is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth in the District or population distribution.

XIII. b) No Impact. PAR 1469 regulates operations at existing chromium electroplating and chromic acid anodizing operations facilities and as previously explained in Section III – Air Quality, SCAQMD staff is not aware of any new chromium electroplating and chromic acid anodizing operations facilities planned to be constructed in the immediate future and is unable to predict or forecast, when, if any, would be built in the long-term. Thus, PAR 1469 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly or cause the displacement of substantial numbers of people that would induce the construction of replacement housing elsewhere in the District.

Conclusion
Based upon these considerations, significant adverse population and housing impacts are not expected from implementing PAR 1469. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Other public facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XIV. a) & b) No Impact. Implementation of PAR 1469 is expected to cause facility owners or operators to install new or modify existing APCDs, to upgrade building enclosures and to relocate tanks, all the while continuing current operations at the existing affected facilities. New safety hazards are not expected to occur during construction because the construction activities would not involve the use or handling of hazardous materials. The metal PM to be captured by the APCDs, once they become operational, may be explosive in nature. Thus, the design of the APCDs will need to conform to the National Fire Protection Association standards which have special designations for deflagrations (e.g., explosion prevention) from metal dust. Additional information pertaining to these types of protective measures is available in Chapter 8 of the *Industrial Ventilation, A Manual for Recommended Practice for Design*, 28th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2013.

The increased use of APCDs, housekeeping, best management practices, and APCD maintenance activities, or the temporary use of construction worker vehicles and trucks would not be expected to substantially alter or increase the need or demand for additional public services (e.g., fire and police departments and related emergency services, et cetera) above current levels, so no significant impact to these existing services is anticipated.

XIV. c) No Impact. As noted in Section XIII - Population and Housing, PAR 1469 is not expected to induce population growth in any way because the local labor pool (e.g., workforce) is expected to be sufficient to accommodate 8472 ~~72~~ construction workers to perform any construction activities that may be necessary at affected facilities and operation of new or modified APCDs is not expected to require additional employees. In the event that new employees are hired, the number of new employees at any one facility would likely be small, no more than one or two per facility. Therefore, with no significant increase in local population, no impacts would be expected to local schools.

XIV. d) No Impact. PAR 1469 is expected to result in the installation and use of new or modified APCDs, upgrades to building enclosures, and the relocation of tanks. Besides obtaining building permits from the local agency and SCAQMD permits for installing APCDs, there will be no need for other types of government services because the affected facilities will continue their existing operations. Because PAR 1469 does not require any change in production rates that would in turn trigger the need for additional oversight by public facilities, PAR 1469 would not result in the need for new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives. As explained earlier, there will be no substantive increase in population as a result of implementing PAR 1469, and, therefore, no need for physically altered government facilities.

Conclusion

Based upon these considerations, significant adverse public services impacts are not expected from implementing PAR 1469. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	☐	☐	☐	☑

Significance Criteria

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XV. a) & b) No Impact. As explained previously in Section XIII - Population and Housing, the owners or operators of the affected facilities who need to perform any construction activities to comply with PAR 1469 can draw from the existing labor pool in the local Southern California area. Further, the installation of new or the modification of existing APCDs would not be expected to require new employees to operate and maintain the equipment because several of the facilities already have existing APCDs in place with personnel trained to maintain the equipment. In the

event that new employees are hired, the number of new employees hired at any one facility would likely be relatively small, perhaps no more than one or two per facility. The human population within the District is anticipated to grow regardless of implementing PAR 1469. As a result, PAR 1469 is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth in the District or population distribution. Further, there are no provisions in PAR 1469 that would affect or increase the demand for or use of existing neighborhood and regional parks or other recreational facilities. Further PAR 1469 would not require the construction of new or the expansion of existing recreational facilities that might, in turn, cause adverse physical effects on the environment because PAR 1469 will not directly or indirectly substantively increase or redistribute population.

Conclusion

Based upon these considerations, significant adverse recreation impacts are not expected from implementing PAR 1469. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID AND HAZARDOUS WASTE. Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☑	☐
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on solid and hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XVI. a) Less than Significant Impact. Landfills are permitted by the local enforcement agencies with concurrence from the California Department of Resources Recycling and Recovery (CalRecycle). Local agencies establish the maximum amount of solid waste which can be received by a landfill each day and the operational life of a landfill. This analysis of solid waste impacts assumes that safety and disposal procedures required by various agencies in California will provide reasonable precautions against the improper disposal of hazardous wastes in a municipal waste landfill. Because of state and federal requirements, some facilities are attempting to reduce or minimize the generation of solid and hazardous wastes by incorporating source reduction technologies to reduce the volume or toxicity of wastes generated, including improving operating procedures, using less hazardous or nonhazardous substitute materials, and upgrading or replacing inefficient processes.

PAR 1469 would require the installation of new or the modification of existing APCDs. In the worst case, the analysis assumes that 130 ~~145~~ APCDs will be installed in all 89 ~~98~~ affected facilities. While most of the APCDs are expected to be new installations, some existing APCDs will be modified or refurbished while others will be dismantled and completely replaced. Any scrap metal from these APCD installations, replacements, or modifications may have economic value such that it can recycled, instead of being sent to a landfill~~ed~~. As such, very minimal amounts of solid waste are expected to be generated during construction.

In addition, the operation of APCDs such as HEPA filters could generate solid waste from the collection of metal PM and from the replacement of torn bags and spent filters in HEPA systems. Mixed metal compounds could be captured with the use of filtration controls at a 99.9 percent control rate. Currently, the affected facilities send their waste metal materials for recycling or disposal at a hazardous waste landfill. Based on the number of APCDs that may be needed at the affected facilities, the analysis shows that spent filters, torn bags, and waste collected by the APCDs (HEPA filters) may generate up to 27,733 ~~30,933~~ cubic yards per year of hazardous waste. The estimated solid waste from these activities is summarized in Table 2-13.

Table 2-13
Total Solid Waste Generation[20]

Control Type	Potential Number of Affected Units	Total Waste Generated Per Year (cubic yards)
Disposal of Torn Bags and Spent Filters	130 ~~145~~ (103 ~~118~~+27)	640 (each) 27,733 ~~30,933~~ (total, worst-case, per year)

Note: This analysis assumes that each APCD will need filter replacement every 3 years and will generate 640 cubic yards of filters, fabrics, metals, and the other total solid waste.

The nearest RCRA landfills to all 89 facilities are Republic Services and US Ecology ~~from all 98 facilities.~~ The Republic Services La Paz County Landfill has approximately 20,000,000 cubic yards of capacity remaining for its~~the~~ 50 year life expectancy (400,000 cubic yards per year). The US Ecology, Inc., facility in Beatty, Nevada has approximately 638,858 cubic yards of capacity remaining for its~~the~~ three year life expectancy (212,952 cubic yards per year). ~~US Ecology, Inc., currently receives approximately 18,000 cubic yards per year of waste, so 194,952 cubic yards per year (212,952 cubic yards per year – 18,000 cubic yards per year) would be available should any of the affected facilities elect to dispose of their hazardous materials at this facility.~~

With a disposal of 27,733~~30,933~~ cubic yards per year of filters, fabrics, and metals, the total solid and hazardous waste impacts from PAR 1469 are conservatively estimated at 8 percent and 14 percent of the available Republic Services and US Ecology landfill capacity, respectively. Thus, the amount of hazardous waste that may be generated by the proposed project is relatively small, would not be considered to create a significant demand on existing landfill capacity, and would not likely require new RCRA landfills to be built.

[20] Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the total solid waste generation. Even with the revised number of potential affected units, the analysis demonstrates that no significant adverse solid waste generation impacts would be expected to occur.

For example, US Ecology, Inc., currently receives approximately 18,000 cubic yards per year of waste, so 194,952 cubic yards per year (212,952 cubic yards per year – 18,000 cubic yards per year) would be available should any of the affected facilities elect to dispose of their hazardous materials at this facility.

Finally, all new APCDs are expected to be installed within the currently developed footprint at existing facilities. Because the newly installed APCDs will have a finite lifetime (approximately 20 years), each unit will ultimately have to be replaced at the end of its useful life. The APCDs may be refurbished and used elsewhere or the scrap metal or other materials from any replaced units would be expected to be recycled due to its economic value. For these reasons, any solid or hazardous waste impacts specifically associated with implementing the proposed project are expected to be minor. As a result, no substantial change in the amount or character of solid or hazardous waste streams is expected to occur.

Because the waste disposal needs from implementing PAR 1469 are expected to be served by existing landfills with sufficient permitted capacity to accommodate each affected facility's solid waste disposal needs, potential solid and hazardous waste impacts from implementing PAR 1469 would not be significant.

XVI. b) No Impact. It is assumed that facility operators at the facilities currently comply with all applicable local, state, or federal waste disposal regulations and PAR 1469 does not contain any provisions that would alter current practices. Thus, implementation of PAR 1469 is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations in a manner that would cause a significant adverse solid and hazardous waste impact.

Conclusion
Based upon these considerations, significant adverse solid and hazardous waste impacts are not expected from implementing PAR 1469. Since no significant solid and hazardous waste impacts were identified, no mitigation measures are necessary or required.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that caused some of the calculations in this section to be revised. Staff has reviewed the modifications to PAR 1469 and the revised calculations and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft EA. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII.	**TRANSPORTATION AND TRAFFIC.** Would the project:				
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☑	☐
b)	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☑	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☐	☑
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on transportation and traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees.
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day.
- Increase customer traffic by more than 700 visits per day.

Discussion

PAR 1469 will further reduce hexavalent chromium emissions from chromium electroplating and chromic acid anodizing operations by: 1) requiring the installation of air pollution control devices (APCDs) for tanks meeting specified criteria; 2) requiring periodic source testing and parametric monitoring of APCDs to be conducted; 3) regulating use of chemical fume suppressants; 4) implementing additional housekeeping and best management practices; and 5) complying with building enclosure provisions. Facilities affected by PAR 1469 are primarily located in existing industrial, commercial or mixed land use areas. In order to comply with PAR 1469, owners/operators of affected facilities would be expected to make physical modifications such as installing APCDs, relocating hexavalent chromium ~~-containing~~ tanks into the buildings, upgrading building enclosures to meet the requirements of PAR 1469, conducting additional source tests, housekeeping, and implementing best management practices. Therefore, secondary impacts associated with the use of on- and off-road construction equipment, construction worker vehicle trips, electricity to operate APCDs, additional source test vehicle trips, APCD maintenance truck trips, and water use for conducting wet cleaning are expected to occur during the implementation of PAR 1469.

XVII. a) & b) Less Than Significant Impact

Construction

As previously discussed in Section III - Air Quality and Greenhouse Gas Emissions, compliance with PAR 1469 may require construction activities associated with installing APCDs, upgrading building enclosures, and relocating tanks. Approximately 70~~60~~ construction worker trips (round

trips) and 14~~12~~ vendor truck trips (round trips) for a total of 84~~72~~ construction round trips are assumed to be needed on a peak construction day for 12 APCD and two PTE installations with overlapping construction schedules. Thus, construction is not expected to affect on-site traffic or parking for each affected facility. Further, since the additional 84~~72~~ construction round trips that may occur on a peak day are well below the significant threshold of 350 round trips, regional traffic and transportation impacts during construction are not expected to cause a significance adverse impact. The estimated vehicle trips from all activities on the peak day during construction are summarized in Table 2-14.

Operation

APCDs that are installed to comply with PAR 1469 will collect toxic PM waste products from chromium electroplating and chromic acid anodizing activities, as well as dry solids from spent filters and torn bags. These solid waste materials will need to be transported off-site from each facility to either disposal or recycling facilities. In addition, fresh filters will need to replace the spent filters and these will need to be delivered to each facility. Similarly, fresh bags will be needed to replace torn bags and these will also need to be delivered to each facility as needed. Finally, since all of the affected facilities will be required to conduct source tests to comply with PAR 1469, workers needed to conduct the source tests will also generate trips. All of the trips needed to haul wastes and deliver supplies as well as conduct source tests will contribute to operational traffic and transportation impacts.

For a worst-case analysis, SCAQMD staff assumed that four facilities on a peak day would generate a maximum of four additional vehicle trips (round trips) to account for worker trips needed to conduct source testing and four additional truck trips (round trips) during operation to haul away collected waste, and to inspect, replace and dispose of filters. While these vehicle and truck trips are assumed to overlap on a given day, the eight round trips that may occur are not expected to significantly adversely affect circulation patterns on local roadways or the level of service at intersections near each of the affected facilities. In fact, this low volume of additional daily vehicle traffic is negligible over the entire District. Further, as previously explained in Section XII – Population and Housing, the installation of new or the modification of existing APCDs would not be expected to require new, additional permanent employees to operate and maintain the equipment because many of the facilities already have existing APCDs in place with personnel trained to maintain the equipment. In the event that new employees are hired, it is expected that the number of new employees hired at any one facility would be relatively small, perhaps no more than one or two per facility. Thus, even for the trips that would be associated with employing a small number ~~amount~~ of new workers at each affected facility, implementation of PAR 1469 is not expected to cause a significant increase in the number of worker trips during operation at any of the affected facilities. The estimated vehicles from all activities is summarized in Table 2-14.

Table 2-14
Estimation of Vehicle Trips (Round Trips)[21]

Phase	Worker Vehicles	Vendor Trucks
Construction [a]	70~~60~~ per day	14~~12~~ per day
Operation	Up to 4 additional vehicles (LDA) for source test and 4 additional APCD maintenance truck (MDV) from all 89 ~~98~~ affected facilities per day[b]	

[a] The worst-case analysis for construction is based on a maximum of 5 worker vehicles plus 1 vendor trucks per day for 12 APCD and 2 PTE installations during a peak day to account for overlapping construction.

[b] The worst-case analysis during operation is based on a maximum of 4 additional source testing vehicles and 4 additional APCD maintenance truck to do filter/bag replacement or inspection, and disposal at 89 ~~98~~ affected facilities.

XVII. c) No Impact. As explained previously in Section VIII – Hazards and Hazardous Materials, 17 of the affected facilities are located within two miles of an airport. However, the installation of the APCDs, the upgrades of building enclosures, and the relocation of tanks are expected to be conducted in accordance with all appropriate building, land use and fire codes and any new installations or structures are expected to be well below the height relative to the elevation of existing flight patterns so as to not interfere with plane flight paths consistent with f~~F~~ederal a~~A~~viation r~~R~~egulations, Title 14 CFR Part 77. Thus, compliance with PAR 1469 would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risk.

XVII. d) & e) No Impact. PAR 1469 does not involve or require the construction of new roadways because the focus of PAR 1469 is reducing hexavalent chromium emissions from chromium electroplating and chromic acid anodizing facilities. Thus, there will be no change to current public roadway designs that could increase traffic hazards. Further, PAR 1469 is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the facilities. Emergency access at each of the affected facilities is not expected to be impacted because PAR 1469 does not contain any requirements specific to emergency access points and each affected facility is expected to continue to maintain their existing emergency access. Further, the building enclosure upgrade requirements in PAR 1469 do not contain any specifications relative to any facility's emergency access. In addition, in order to build the PTEs ~~total enclosures~~, the facility would likely need to get approvals from the local land use authority and that's when they would check for emergency access. PAR 1469 does not include provisions which would conflict with emergency access. Since PAR 1469 is expected to involve short-term construction activities that would create new, minor delivery/haul truck trips that would be expected to cease after construction is completed, the proposed project is not expected to alter the existing long-term circulation patterns within the areas of each affected facility during construction. Similarly, during operation, the projected increase of additional vehicle trips that may be needed at each affected facility would be at less than significant levels individually and cumulatively such that implementation of the proposed project is not expected to require a modification to circulation. Thus, no long-term impacts on the traffic circulation system are expected to occur during construction or operation.

[21] Subsequent to the release of the Draft EA, modifications were made to PAR 1469 which triggered adjustments to the total number of affected facilities. Even with the revised number of potential affected facilities, the analysis demonstrates that no significant adverse transportation and traffic impacts would be expected to occur.

XVII. f) No Impact. PAR 1469 does not contain any requirements that would affect or alter adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Further, the facilities would still be expected to comply with, and not interfere with adopted policies, plans, or programs supporting alternative transportation (e.g., bicycles or buses) that exist in their respective cities. Since all of the requirements and compliance activities associated with implementing PAR 1469 would be expected to occur on-site, PAR 1469 would have no impact on each facility's ability to comply with any applicable alternative transportation plans or policies.

Conclusion

Based upon these considerations, significant adverse transportation and traffic impacts are not expected from implementing PAR 1469. Since no significant transportation and traffic impacts were identified, no mitigation measures are necessary or required.

Subsequent to the release of the Draft EA for public review and comment, modifications were made to PAR 1469 that caused some of the calculations in this section to be revised. Staff has reviewed the modifications to PAR 1469 and the revised calculations and concluded that none of the revisions constitute: 1) significant new information; 2) a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft EA. In addition, revisions to the proposed project in response to verbal or written comments would not create new, avoidable significant effects.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	☐	☐	☑	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

Discussion

XVIII. a) No Impact. As explained in Section IV - Biological Resources, PAR 1469 is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because any construction and operational activities associated with the facilities are expected to occur entirely within the boundaries of existing developed facilities in areas that have been greatly disturbed and that currently do not support any species of concern or the habitat on which they rely. For these reasons, PAR 1469 is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past.

XVIII. b) Less Than Significant Impact. Based on the foregoing analyses, PAR 1469 would not result in significant adverse project-specific environmental impacts. Potential adverse impacts from implementing PAR 1469 would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for any environmental topic because there are no, or only minor incremental project-specific impacts that were concluded to be less than significant. Per CEQA

Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulative considerable. SCAQMD cumulative significant thresholds are the same as project-specific significance thresholds.

This approach was upheld by the court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the SCAQMD's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines §15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although the project will contribute additional air pollutants to an existing nonattainment area, these increases are below the significance criteria…". "Thus, we conclude that no fair argument exists that the Project will cause a significant unavoidable cumulative contribution to an air quality impact." ~~As in *Chula Vista* and *Rialto Citizens for Responsible Growth*, here the SCAQMD has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899.~~ In *Rialto Citizens for Responsible Growth*, the court upheld the SCAQMD's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively considerable. <u>See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. As in *Chula Vista* and *Rialto Citizens for Responsible Growth*, here the SCAQMD has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds.</u> Thus, the implementation of PAR 1469 will not cause a significant unavoidable cumulative impact.

Therefore, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by PAR 1469 for any environmental topic.

XVIII. c) Less Than Significant Impact. Based on the foregoing analyses, PAR 1469 is not expected to cause adverse effects on human beings for any environmental topic, either directly or indirectly because: 1) the air quality and GHG impacts were determined to be less than the significance thresholds as analyzed in Section III – Air Quality and Greenhouse Gases; 2) the increased demand for energy, water, and solid waste disposal, can be met by utilizing existing services as analyzed in Section VI - Energy, Section IX - Hydrology and Water Quality, and Section XVI – Solid and Hazardous Waste; 3) the hazards and hazardous materials impacts were determined to be less than significant as analyzed in Section VIII – Hazards and Hazardous Materials; 4) the noise impacts were determined to be less than significant as analyzed in Section XII – Noise; and, 5) the transportation and traffic impacts were determined to be less than the significance thresholds as analyzed in Section XVI – Transportation and Traffic. In addition, the analysis concluded that there would be no significant environmental impacts for the remaining environmental impact topic areas: aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology and soils, land use and planning, mineral resources, public services, population and housing, and recreation.

Conclusion

As previously discussed in environmental topics I through XVIII, the proposed project has no potential to cause significant adverse environmental effects. Therefore, no mitigation measures are necessary or required.

APPENDICES

Appendix A: Proposed Amended Rule 1469 – Hexavalent Chromium Emissions From Chromium Electroplating And Chromic Acid Anodizing Operations

Appendix B: CalEEMod Files and Assumptions

Appendix C: CEQA Impact Evaluations – Assumptions and Calculations

Appendix D: PAR 1469 List of Affected Facilities

Appendix E: Comment Letters Received on the Draft EA and Responses to Comments

APPENDIX A

Proposed Amended Rule 1469 – Hexavalent Chromium Emissions From Chromium Electroplating And Chromic Acid Anodizing Operations

In order to save space and avoid repetition, please refer to the latest version of Proposed Amended Rule 1469 located elsewhere in the Governing Board Package. The version of Proposed Amended Rule 1469 that was circulated with the Draft EA and released on February 16, 2018 for a 32-day public review and comment period ending on March 20, 2018 was identified as "Preliminary Draft Rule Language – January 19, 2018".

Original hard copies of the Draft EA, which include the draft version of the proposed amended rule listed above, can be obtained through the SCAQMD Public Information Center at the Diamond Bar headquarters or by contacting Fabian Wesson, Public Advisor at the SCAQMD's Public Information Center by phone at (909) 396-2039 or by email at PICrequests@aqmd.gov.

APPENDIX B

CalEEMod Files And Assumptions

APPENDIX B

CalEEMod Files And Assumptions

- **1 tank relocation (annual run)**

PAR1469_construction tank relocation

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 1 tank relocation (1 welder, 1 forklift)

Off-road Equipment - 1 tank relocation (1 welder, 1 forklift)

Trips and VMT - each tank relocation needs 5 worker vehicles and 1 vendor vehicle

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	10.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	9.3000e-004	4.5300e-003	5.1700e-003	1.0000e-005	3.1000e-004	3.1000e-004	6.2000e-004	8.0000e-005	2.9000e-004	3.8000e-004	0.0000	0.7555	0.7555	1.1000e-004	0.0000	0.7583
Maximum	**9.3000e-004**	**4.5300e-003**	**5.1700e-003**	**1.0000e-005**	**3.1000e-004**	**3.1000e-004**	**6.2000e-004**	**8.0000e-005**	**2.9000e-004**	**3.8000e-004**	**0.0000**	**0.7555**	**0.7555**	**1.1000e-004**	**0.0000**	**0.7583**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	9.3000e-004	4.5300e-003	5.1700e-003	1.0000e-005	3.1000e-004	3.1000e-004	6.2000e-004	8.0000e-005	2.9000e-004	3.8000e-004	0.0000	0.7555	0.7555	1.1000e-004	0.0000	0.7583
Maximum	**9.3000e-004**	**4.5300e-003**	**5.1700e-003**	**1.0000e-005**	**3.1000e-004**	**3.1000e-004**	**6.2000e-004**	**8.0000e-005**	**2.9000e-004**	**3.8000e-004**	**0.0000**	**0.7555**	**0.7555**	**1.1000e-004**	**0.0000**	**0.7583**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	2-14-2018	5-13-2018	0.0039	0.0039
		Highest	0.0039	0.0039

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	0	4.00	63	0.31
Building Construction	Air Compressors	0	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	4.0700e-003	3.8400e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.9000e-004	2.9000e-004	0.0000	0.4097	0.4097	1.0000e-004	0.0000	0.4122
Total	**7.7000e-004**	**4.0700e-003**	**3.8400e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.4097**	**0.4097**	**1.0000e-004**	**0.0000**	**0.4122**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	3.5000e-004	1.7000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.0827	0.0827	0.0000	0.0000	0.0828
Worker	1.3000e-004	1.1000e-004	1.1700e-003	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2631	0.2631	1.0000e-005	0.0000	0.2634
Total	**1.5000e-004**	**4.6000e-004**	**1.3400e-003**	**0.0000**	**3.0000e-004**	**1.0000e-005**	**3.2000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.3459**	**0.3459**	**1.0000e-005**	**0.0000**	**0.3461**

3.2 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	4.0700e-003	3.8400e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.9000e-004	2.9000e-004	0.0000	0.4097	0.4097	1.0000e-004	0.0000	0.4122
Total	**7.7000e-004**	**4.0700e-003**	**3.8400e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**0.4097**	**0.4097**	**1.0000e-004**	**0.0000**	**0.4122**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	3.5000e-004	1.7000e-004	0.0000	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.0827	0.0827	0.0000	0.0000	0.0828
Worker	1.3000e-004	1.1000e-004	1.1700e-003	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2631	0.2631	1.0000e-005	0.0000	0.2634
Total	**1.5000e-004**	**4.6000e-004**	**1.3400e-003**	**0.0000**	**3.0000e-004**	**1.0000e-005**	**3.2000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**0.3459**	**0.3459**	**1.0000e-005**	**0.0000**	**0.3461**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **1 tank relocation (Summer run)**

PAR1469_construction tank relocation

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 1 tank relocation (1 welder, 1 forklift)

Off-road Equipment - 1 tank relocation (1 welder, 1 forklift)

Trips and VMT - each tank relocation needs 5 worker vehicles and 1 vendor vehicle

PAR1469_construction tank relocation - South Coast AQMD Air District, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.3722	1.8022	2.1015	3.6200e-003	0.1253	0.1231	0.2484	0.0337	0.1179	0.1516	0.0000	339.0885	339.0885	0.0488	0.0000	340.3073
Maximum	**0.3722**	**1.8022**	**2.1015**	**3.6200e-003**	**0.1253**	**0.1231**	**0.2484**	**0.0337**	**0.1179**	**0.1516**	**0.0000**	**339.0885**	**339.0885**	**0.0488**	**0.0000**	**340.3073**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.3722	1.8022	2.1015	3.6200e-003	0.1253	0.1231	0.2484	0.0337	0.1179	0.1516	0.0000	339.0885	339.0885	0.0488	0.0000	340.3073
Maximum	**0.3722**	**1.8022**	**2.1015**	**3.6200e-003**	**0.1253**	**0.1231**	**0.2484**	**0.0337**	**0.1179**	**0.1516**	**0.0000**	**339.0885**	**339.0885**	**0.0488**	**0.0000**	**340.3073**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	0	4.00	63	0.31
Building Construction	Air Compressors	0	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3100	1.6282	1.5351	2.0400e-003		0.1196	0.1196		0.1146	0.1146		180.6327	180.6327	0.0438		181.7285
Total	**0.3100**	**1.6282**	**1.5351**	**2.0400e-003**		**0.1196**	**0.1196**		**0.1146**	**0.1146**		**180.6327**	**180.6327**	**0.0438**		**181.7285**

3.2 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.3400e-003	0.1354	0.0647	3.5000e-004	0.0135	2.6300e-003	0.0162	4.0600e-003	2.5200e-003	6.5700e-003		36.5206	36.5206	7.6000e-004		36.5396
Worker	0.0539	0.0386	0.5018	1.2300e-003	0.1118	8.9000e-004	0.1127	0.0296	8.2000e-004	0.0305		121.9352	121.9352	4.1600e-003		122.0391
Total	**0.0622**	**0.1740**	**0.5664**	**1.5800e-003**	**0.1253**	**3.5200e-003**	**0.1288**	**0.0337**	**3.3400e-003**	**0.0370**		**158.4558**	**158.4558**	**4.9200e-003**		**158.5787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3100	1.6282	1.5351	2.0400e-003		0.1196	0.1196		0.1146	0.1146	0.0000	180.6327	180.6327	0.0438		181.7285
Total	**0.3100**	**1.6282**	**1.5351**	**2.0400e-003**		**0.1196**	**0.1196**		**0.1146**	**0.1146**	**0.0000**	**180.6327**	**180.6327**	**0.0438**		**181.7285**

3.2 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.3400e-003	0.1354	0.0647	3.5000e-004	0.0135	2.6300e-003	0.0162	4.0600e-003	2.5200e-003	6.5700e-003		36.5206	36.5206	7.6000e-004		36.5396
Worker	0.0539	0.0386	0.5018	1.2300e-003	0.1118	8.9000e-004	0.1127	0.0296	8.2000e-004	0.0305		121.9352	121.9352	4.1600e-003		122.0391
Total	**0.0622**	**0.1740**	**0.5664**	**1.5800e-003**	**0.1253**	**3.5200e-003**	**0.1288**	**0.0337**	**3.3400e-003**	**0.0370**		**158.4558**	**158.4558**	**4.9200e-003**		**158.5787**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **1 tank relocation (Winter run)**

PAR1469_construction tank relocation

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - 1 tank relocation (1 welder, 1 forklift)

Off-road Equipment - 1 tank relocation (1 welder, 1 forklift)

Trips and VMT - each tank relocation needs 5 worker vehicles and 1 vendor vehicle

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	10.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.3771	1.8094	2.0572	3.5400e-003	0.1253	0.1231	0.2484	0.0337	0.1179	0.1516	0.0000	331.1344	331.1344	0.0485	0.0000	332.3470
Maximum	**0.3771**	**1.8094**	**2.0572**	**3.5400e-003**	**0.1253**	**0.1231**	**0.2484**	**0.0337**	**0.1179**	**0.1516**	**0.0000**	**331.1344**	**331.1344**	**0.0485**	**0.0000**	**332.3470**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.3771	1.8094	2.0572	3.5400e-003	0.1253	0.1231	0.2484	0.0337	0.1179	0.1516	0.0000	331.1344	331.1344	0.0485	0.0000	332.3470
Maximum	**0.3771**	**1.8094**	**2.0572**	**3.5400e-003**	**0.1253**	**0.1231**	**0.2484**	**0.0337**	**0.1179**	**0.1516**	**0.0000**	**331.1344**	**331.1344**	**0.0485**	**0.0000**	**332.3470**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	0	4.00	63	0.31
Building Construction	Air Compressors	0	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	1	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	2	10.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3100	1.6282	1.5351	2.0400e-003		0.1196	0.1196		0.1146	0.1146		180.6327	180.6327	0.0438		181.7285
Total	**0.3100**	**1.6282**	**1.5351**	**2.0400e-003**		**0.1196**	**0.1196**		**0.1146**	**0.1146**		**180.6327**	**180.6327**	**0.0438**		**181.7285**

3.2 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.5700e-003	0.1388	0.0680	3.5000e-004	0.0135	2.6400e-003	0.0162	4.0600e-003	2.5200e-003	6.5800e-003		36.4338	36.4338	7.8000e-004		36.4533
Worker	0.0586	0.0423	0.4541	1.1500e-003	0.1118	8.9000e-004	0.1127	0.0296	8.2000e-004	0.0305		114.0679	114.0679	3.8900e-003		114.1652
Total	**0.0672**	**0.1812**	**0.5221**	**1.5000e-003**	**0.1253**	**3.5300e-003**	**0.1288**	**0.0337**	**3.3400e-003**	**0.0370**		**150.5017**	**150.5017**	**4.6700e-003**		**150.6185**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3100	1.6282	1.5351	2.0400e-003		0.1196	0.1196		0.1146	0.1146	0.0000	180.6327	180.6327	0.0438		181.7285
Total	**0.3100**	**1.6282**	**1.5351**	**2.0400e-003**		**0.1196**	**0.1196**		**0.1146**	**0.1146**	**0.0000**	**180.6327**	**180.6327**	**0.0438**		**181.7285**

3.2 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	8.5700e-003	0.1388	0.0680	3.5000e-004	0.0135	2.6400e-003	0.0162	4.0600e-003	2.5200e-003	6.5800e-003		36.4338	36.4338	7.8000e-004		36.4533
Worker	0.0586	0.0423	0.4541	1.1500e-003	0.1118	8.9000e-004	0.1127	0.0296	8.2000e-004	0.0305		114.0679	114.0679	3.8900e-003		114.1652
Total	**0.0672**	**0.1812**	**0.5221**	**1.5000e-003**	**0.1253**	**3.5300e-003**	**0.1288**	**0.0337**	**3.3400e-003**	**0.0370**		**150.5017**	**150.5017**	**4.6700e-003**		**150.6185**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **APCD installation (annual run)**

PAR1469_20180126_construction

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Off-road Equipment - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Trips and VMT - each APCD installation needs 5 worker vehicles and 1 vendor vehicle

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	120.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0178	0.1052	0.1155	1.9000e-004	3.6900e-003	7.0000e-003	0.0107	9.9000e-004	6.8200e-003	7.8100e-003	0.0000	16.4719	16.4719	2.5200e-003	0.0000	16.5350
Maximum	**0.0178**	**0.1052**	**0.1155**	**1.9000e-004**	**3.6900e-003**	**7.0000e-003**	**0.0107**	**9.9000e-004**	**6.8200e-003**	**7.8100e-003**	**0.0000**	**16.4719**	**16.4719**	**2.5200e-003**	**0.0000**	**16.5350**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0178	0.1052	0.1155	1.9000e-004	3.6900e-003	7.0000e-003	0.0107	9.9000e-004	6.8200e-003	7.8100e-003	0.0000	16.4719	16.4719	2.5200e-003	0.0000	16.5350
Maximum	**0.0178**	**0.1052**	**0.1155**	**1.9000e-004**	**3.6900e-003**	**7.0000e-003**	**0.0107**	**9.9000e-004**	**6.8200e-003**	**7.8100e-003**	**0.0000**	**16.4719**	**16.4719**	**2.5200e-003**	**0.0000**	**16.5350**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	2-14-2018	5-13-2018	0.0876	0.0876
		Highest	0.0876	0.0876

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	12	4.00	63	0.31
Building Construction	Air Compressors	12	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	12	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	12	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	48	120.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0159	0.0996	0.0995	1.5000e-004		6.8900e-003	6.8900e-003		6.7200e-003	6.7200e-003	0.0000	12.3215	12.3215	2.3900e-003	0.0000	12.3813
Total	**0.0159**	**0.0996**	**0.0995**	**1.5000e-004**		**6.8900e-003**	**6.8900e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**12.3215**	**12.3215**	**2.3900e-003**	**0.0000**	**12.3813**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	4.2200e-003	2.0100e-003	1.0000e-005	4.0000e-004	8.0000e-005	4.8000e-004	1.2000e-004	8.0000e-005	2.0000e-004	0.0000	0.9929	0.9929	2.0000e-005	0.0000	0.9935
Worker	1.5900e-003	1.3000e-003	0.0140	3.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	2.0000e-005	9.0000e-004	0.0000	3.1575	3.1575	1.1000e-004	0.0000	3.1602
Total	**1.8400e-003**	**5.5200e-003**	**0.0160**	**4.0000e-005**	**3.6900e-003**	**1.1000e-004**	**3.8000e-003**	**9.9000e-004**	**1.0000e-004**	**1.1000e-003**	**0.0000**	**4.1505**	**4.1505**	**1.3000e-004**	**0.0000**	**4.1537**

3.2 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0159	0.0996	0.0995	1.5000e-004		6.8900e-003	6.8900e-003		6.7200e-003	6.7200e-003	0.0000	12.3215	12.3215	2.3900e-003	0.0000	12.3813
Total	**0.0159**	**0.0996**	**0.0995**	**1.5000e-004**		**6.8900e-003**	**6.8900e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**12.3215**	**12.3215**	**2.3900e-003**	**0.0000**	**12.3813**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5000e-004	4.2200e-003	2.0100e-003	1.0000e-005	4.0000e-004	8.0000e-005	4.8000e-004	1.2000e-004	8.0000e-005	2.0000e-004	0.0000	0.9929	0.9929	2.0000e-005	0.0000	0.9935
Worker	1.5900e-003	1.3000e-003	0.0140	3.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	2.0000e-005	9.0000e-004	0.0000	3.1575	3.1575	1.1000e-004	0.0000	3.1602
Total	**1.8400e-003**	**5.5200e-003**	**0.0160**	**4.0000e-005**	**3.6900e-003**	**1.1000e-004**	**3.8000e-003**	**9.9000e-004**	**1.0000e-004**	**1.1000e-003**	**0.0000**	**4.1505**	**4.1505**	**1.3000e-004**	**0.0000**	**4.1537**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **APCD installation (Summer run)**

PAR1469_20180126_construction

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Off-road Equipment - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Trips and VMT - each APCD installation needs 5 worker vehicles and 1 vendor vehicle

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	120.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.1071	41.9374	46.5971	0.0773	1.5035	2.7998	4.3033	0.4044	2.7278	3.1322	0.0000	7,334.3135	7,334.3135	1.1146	0.0000	7,362.1771
Maximum	**7.1071**	**41.9374**	**46.5971**	**0.0773**	**1.5035**	**2.7998**	**4.3033**	**0.4044**	**2.7278**	**3.1322**	**0.0000**	**7,334.3135**	**7,334.3135**	**1.1146**	**0.0000**	**7,362.1771**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.1071	41.9374	46.5971	0.0773	1.5035	2.7998	4.3033	0.4044	2.7278	3.1322	0.0000	7,334.3134	7,334.3134	1.1146	0.0000	7,362.1771
Maximum	**7.1071**	**41.9374**	**46.5971**	**0.0773**	**1.5035**	**2.7998**	**4.3033**	**0.4044**	**2.7278**	**3.1322**	**0.0000**	**7,334.3134**	**7,334.3134**	**1.1146**	**0.0000**	**7,362.1771**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	12	4.00	63	0.31
Building Construction	Air Compressors	12	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	12	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	12	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	48	120.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.3604	39.8495	39.8001	0.0584		2.7575	2.7575		2.6878	2.6878		5,432.8440	5,432.8440	1.0555		5,459.2324
Total	**6.3604**	**39.8495**	**39.8001**	**0.0584**		**2.7575**	**2.7575**		**2.6878**	**2.6878**		**5,432.8440**	**5,432.8440**	**1.0555**		**5,459.2324**

3.2 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1001	1.6243	0.7759	4.2200e-003	0.1622	0.0316	0.1938	0.0487	0.0302	0.0789		438.2475	438.2475	9.1200e-003		438.4755
Worker	0.6466	0.4636	6.0211	0.0147	1.3413	0.0107	1.3520	0.3557	9.8600e-003	0.3656		1,463.2220	1,463.2220	0.0499		1,464.4693
Total	**0.7467**	**2.0879**	**6.7970**	**0.0189**	**1.5035**	**0.0423**	**1.5458**	**0.4044**	**0.0401**	**0.4445**		**1,901.4695**	**1,901.4695**	**0.0590**		**1,902.9448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.3604	39.8495	39.8001	0.0584		2.7575	2.7575		2.6878	2.6878	0.0000	5,432.8439	5,432.8439	1.0555		5,459.2324
Total	**6.3604**	**39.8495**	**39.8001**	**0.0584**		**2.7575**	**2.7575**		**2.6878**	**2.6878**	**0.0000**	**5,432.8439**	**5,432.8439**	**1.0555**		**5,459.2324**

3.2 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1001	1.6243	0.7759	4.2200e-003	0.1622	0.0316	0.1938	0.0487	0.0302	0.0789		438.2475	438.2475	9.1200e-003		438.4755
Worker	0.6466	0.4636	6.0211	0.0147	1.3413	0.0107	1.3520	0.3557	9.8600e-003	0.3656		1,463.2220	1,463.2220	0.0499		1,464.4693
Total	**0.7467**	**2.0879**	**6.7970**	**0.0189**	**1.5035**	**0.0423**	**1.5458**	**0.4044**	**0.0401**	**0.4445**		**1,901.4695**	**1,901.4695**	**0.0590**		**1,902.9448**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CalEEMod Files And Assumptions

- **APCD installation (Winter run)**

PAR1469_20180126_construction

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 1 project

Construction Phase - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Off-road Equipment - worst-case construction day: 12 APCDs installation (each has 1 air compressor, 1 welder, 1 forklift, 1 aerial lift)

Trips and VMT - each APCD installation needs 5 worker vehicles and 1 vendor vehicle

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	12.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	24.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	WorkerTripNumber	0.00	120.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.1663	42.0234	46.0647	0.0763	1.5035	2.7999	4.3034	0.4044	2.7279	3.1323	0.0000	7,238.8642	7,238.8642	1.1116	0.0000	7,266.6543
Maximum	**7.1663**	**42.0234**	**46.0647**	**0.0763**	**1.5035**	**2.7999**	**4.3034**	**0.4044**	**2.7279**	**3.1323**	**0.0000**	**7,238.8642**	**7,238.8642**	**1.1116**	**0.0000**	**7,266.6543**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.1663	42.0234	46.0647	0.0763	1.5035	2.7999	4.3034	0.4044	2.7279	3.1323	0.0000	7,238.8642	7,238.8642	1.1116	0.0000	7,266.6543
Maximum	**7.1663**	**42.0234**	**46.0647**	**0.0763**	**1.5035**	**2.7999**	**4.3034**	**0.4044**	**2.7279**	**3.1323**	**0.0000**	**7,238.8642**	**7,238.8642**	**1.1116**	**0.0000**	**7,266.6543**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/2/2018	4/6/2018	5	5	APCD installation

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Aerial Lifts	12	4.00	63	0.31
Building Construction	Air Compressors	12	4.00	78	0.48
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Forklifts	12	4.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	12	4.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	48	120.00	24.00	0.00	14.70	6.90	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.3604	39.8495	39.8001	0.0584		2.7575	2.7575		2.6878	2.6878		5,432.8440	5,432.8440	1.0555		5,459.2324
Total	**6.3604**	**39.8495**	**39.8001**	**0.0584**		**2.7575**	**2.7575**		**2.6878**	**2.6878**		**5,432.8440**	**5,432.8440**	**1.0555**		**5,459.2324**

3.2 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1028	1.6661	0.8155	4.2100e-003	0.1622	0.0317	0.1939	0.0487	0.0303	0.0790		437.2053	437.2053	9.3600e-003		437.4392
Worker	0.7030	0.5079	5.4491	0.0138	1.3413	0.0107	1.3520	0.3557	9.8600e-003	0.3656		1,368.8150	1,368.8150	0.0467		1,369.9828
Total	**0.8059**	**2.1739**	**6.2646**	**0.0180**	**1.5035**	**0.0424**	**1.5459**	**0.4044**	**0.0402**	**0.4446**		**1,806.0203**	**1,806.0203**	**0.0561**		**1,807.4220**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.3604	39.8495	39.8001	0.0584		2.7575	2.7575		2.6878	2.6878	0.0000	5,432.8439	5,432.8439	1.0555		5,459.2324
Total	**6.3604**	**39.8495**	**39.8001**	**0.0584**		**2.7575**	**2.7575**		**2.6878**	**2.6878**	**0.0000**	**5,432.8439**	**5,432.8439**	**1.0555**		**5,459.2324**

3.2 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1028	1.6661	0.8155	4.2100e-003	0.1622	0.0317	0.1939	0.0487	0.0303	0.0790		437.2053	437.2053	9.3600e-003		437.4392
Worker	0.7030	0.5079	5.4491	0.0138	1.3413	0.0107	1.3520	0.3557	9.8600e-003	0.3656		1,368.8150	1,368.8150	0.0467		1,369.9828
Total	**0.8059**	**2.1739**	**6.2646**	**0.0180**	**1.5035**	**0.0424**	**1.5459**	**0.4044**	**0.0402**	**0.4446**		**1,806.0203**	**1,806.0203**	**0.0561**		**1,807.4220**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.544547	0.044708	0.198656	0.126890	0.018261	0.005879	0.019662	0.030939	0.001958	0.002113	0.004656	0.000702	0.001029

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**1.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C

CEQA Impact Evaluations – Assumptions and Calculations

Appendix C
CEQA Construction Impact Evaluations - Assumptions and Calculations
(2018/2/14 rev)

Criteria Pollutant Emissions Summary

PAR 1469 Requirement	VOC, lb/day	NOx, lb/day	CO, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day
1 tank relocation (Summer)	0.37	1.80	2.10	0.004	0.25	0.15
1 tank relocation (Winter)	0.38	1.81	2.06	0.004	0.25	0.03
Peak Day - 3 tank relocation on the same day	1.13	5.43	6.30	0.01	0.75	0.45
12 APCD Installations (Summer)	7.11	41.94	46.60	0.08	4.30	3.13
12 APCD Installations (Winter)	7.17	42.02	46.06	0.08	4.30	3.13
Peak Day - 12 APCD Installations on the same day	7.17	42.02	46.60	0.08	4.30	3.13
Daily Peak Construction Emissions	7.17	42.02	46.60	0.08	4.30	3.13
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75.00	100.00	550.00	150.00	150.00	55.00

Note:

1. The emissions are estimated using CalEEMod.

2. Tank relocation is expected to occur in the first 90 days after the rule is adopted. It is conservatively assumed in the peak day, there will be 3 tank relocation work among PAR1469 affected facilities.

3. APCD installation is expected to occur 1 year after the rule is adopted and therefore it has no overlap with tank relocation work. It is conservatively assumed in the peak day, there will be 12 APCD installtion work among PAR1469 affected facilities.

GHG Emissions Summary

PAR 1469 Requirement	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr
1 tank relocation	0.76	1.10E-04	-	0.76
6 tank relocation	4.53	0.00	-	4.55
12 APCD Installations	16.47	2.52E-03	-	16.54
145 APCD Installations	199.04	0.03	-	199.80
Total Emissions During Construction	203.57	0.03	-	204.35

6.81 amortized over 30 years

Gasoline Fuel Usage Estimations

Category	EPA/NHTSA Fuel Consumption								
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg	**gallon fuel consumed per year due to PAR 1469**	mmgal	Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)	Total % Above Baseline	
LDA/LDT1/LDT2				20.00	1,051				
MDT				10.00	197				
Reference:					1,248	0.0012	6,997	0.00002%	gasoline

National Highway Traffic Safety Administration (NHTSA) vocational vehicle standards, https://www.dieselnet.com/standards/us/fe_hd.php

EPA Fuel Economy report: https://www.epa.gov/fueleconomy/trends-report

California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html

Diesel Fuel Usage Estimations

Equipment	gal/hr	hrs/day	# piece	gals
Aerial lift	0.96	4	145	2784
Forklifts	0.96	4	151	2899.2
Air Compressors	0.9	4	145	2610
Welders	0.331	4	151	999.62
ref: fuel usage scaled from SOx emissions in OFFROAD (CARB)				9292.82

0.0093 749 0.0012% diesel

Appendix C
CEQA Operational Impact Evaluations - Assumptions and Calculations
(2018/2/14 rev)

Emissions Summary

PAR 1469 Requirement	CO, lb/day	NOx, lb/day	PM10, lb/day	PM2.5, lb/day	VOC, lb/day	SOX, lb/day	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr	All sites: Max. # used/day	All sites: Max. # day used/yr
Increased source test vehicles (LDA)	0.39	0.03	0.07	0.72	0.01	0.00	1.30	-	-	1.30	4	98
Increased maintenance truck (MDT)	0.10	0.03	0.13	0.04	0.01	0.00	0.08	-	-	1.99	4	98
Total	**0.48**	**0.06**	**0.20**	**0.75**	**0.02**	**0.00**	**1.38**	**-**	**-**	**3.29**		

Note:

1. It is conservatively assumed in the peak day, there will be an additional 4 source test vehicles (LDA) and 4 maintenance truck (MDT) to all PAR 1469 affected facilities.

2. It is conservatively assumed in the peak year, there will be an additional 98 source test vehicles (LDA) and 98 maintenance truck (MDT) to all PAR 1469 affected facilities.

3. Each LDA and each MDV is assumed to travel round trip up to 40 miles.

4. The increased medium duty truck is for additional waste disposal truck, filter replacement , filter leak inspection and other maintenance work for the APCDs.

Medium-Duty Truck (MDT) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e	VMT, mile/day
g/mile (RUNEX, PMBW, PMTW, Fugitive)	0.26	0.08	0.37	0.10	0.02	0.00	505.00			505.00	40.0
g/vehicle (IDLEX)	0.33	0.05	0.01	0.01	0.02	0.00	139.57			139.57	
lb/day, MT/day for GHG	0.02	0.01	0.03	0.01	0.00	0.00	0.02	-	-	0.02	

EF: from EMFAC2014, EPA AP-42

Light-Duty Automobiles (LDA) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e	VMT, mile/day
g/mile (RUNEX, PMBW, PMTW, Fugitive)	1.10	0.10	0.20	2.03	0.03	0.00	330.83			330.83	40.0
lb/day, MT/day for GHG	0.10	0.01	0.02	0.18	0.00	0.00	0.01	-	-	0.01	

EF: from EMFAC2014, EPA AP-42

ENERGY CALS

Category	EPA/NHTSA Fuel Consumption						
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg	**gallon fuel consumed per year due to PAR 1469**	Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)	Total % Above Baseline
Increased source test vehicles (LDA)				20.00	196		
Increased maintenance truck (MDT)				10.00	392		
Total					588	6,997	0.00001% gasoline

Reference:

EPA Fuel Economy report: https://www.epa.gov/fueleconomy/trends-report

National Highway Traffic Safety Administration (NHTSA) vocational vehicle standards, https://www.dieselnet.com/standards/us/fe_hd.php

California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html

Operation- Energy and GHG

HEPA filter and blower

Blower (100 bhp)	**Consumption (GW-h/yr)**	**Consumption in MWh/yr**
	0.001788	1.788

Ref: R1420.2 EA

	CO2	**CH4**	**N2O**	**CO2e**
Intensity (lb/MWhr)	702.44	0.03	0.01	704.95
MT/yr for GHG	0.57	0.00	0.00	0.57
Total MT/yr for GHG	82.61	0.00	0.00	82.90

Max. # of blowers (HEPA filter and blower)	**Max. Total Energy Consumption (MWh/yr)**
145	259.26

Appendix C (Final EA)
CEQA Construction Impact Evaluations - Assumptions and Calculations

Criteria Pollutant Emissions Summary

PAR 1469 Requirement	VOC, lb/day	NOx, lb/day	CO, lb/day	SOX, lb/day	PM10, lb/day	PM2.5, lb/day
1 tank relocation (Summer)	0.37	1.80	2.10	0.004	0.25	0.15
1 tank relocation (Winter)	0.38	1.81	2.06	0.004	0.25	0.03
Peak Day - 3 tank relocation on the same day	1.13	5.43	6.30	0.01	0.75	0.45
12 APCD Installations (Summer)	7.11	41.94	46.60	0.08	4.30	3.13
12 APCD Installations (Winter)	7.17	42.02	46.06	0.08	4.30	3.13
Peak Day - 12 APCD Installations on the same day	7.17	42.02	46.60	0.08	4.30	3.13
Daily Peak Construction Emissions	7.17	42.02	46.60	0.08	4.30	3.13
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75.00	100.00	550.00	150.00	150.00	55.00

Note:

1. The emissions are estimated using CalEEMod.

2. Tank relocation is expected to occur in the first 90 days after the rule is adopted. It is conservatively assumed in the peak day, there will be 3 tank relocation work among PAR1469 affected facilities.

3. APCD installation is expected to occur 1 year after the rule is adopted and therefore it has no overlap with tank relocation work. It is conservatively assumed in the peak day, there will be 12 APCD installtion work among PAR1469 affected facilities.

GHG Emissions Summary

PAR 1469 Requirement	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr
1 tank relocation	0.76	1.10E-04	-	0.76
6 tank relocation	4.53	0.00	-	4.55
12 APCD Installations	16.47	2.52E-03	-	16.54
132 APCD Installations	181.19	0.03	-	181.89
Total Emissions During Construction	185.72	0.03	-	186.43

6.21 amortized over 30 years

Gasoline Fuel Usage Estimations

Category	EPA/NHTSA Fuel Consumption								
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg	gallon fuel consumed per year due to PAR 1469	mmgal	Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)	Total % Above Baseline	
LDA/LDT1/LDT2				20.00	1,014				
MDT				10.00	190				
Reference:					1,205	0.0012	6,997	0.00002%	gasoline

National Highway Traffic Safety Administration (NHTSA) vocational vehicle standards, https://www.dieselnet.com/standards/us/fe_hd.php

EPA Fuel Economy report: https://www.epa.gov/fueleconomy/trends-report

California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html

Diesel Fuel Usage Estimations

Equipment	gal/hr	hrs/day	# piece	gals
Aerial lift	0.96	4	145	2784
Forklifts	0.96	4	151	2899.2
Air Compressors	0.9	4	145	2610
Welders	0.331	4	151	999.62
ref: fuel usage scaled from SOx emissions in OFFROAD (CARB)				9292.82

0.0093 749 0.0012% diesel

*This appendix represents the Final EA calculations.

Appendix C (Final EA)
CEQA Operational Impact Evaluations - Assumptions and Calculations

Emissions Summary

PAR 1469 Requirement	CO, lb/day	NOx, lb/day	PM10, lb/day	PM2.5, lb/day	VOC, lb/day	SOX, lb/day	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr	All sites: Max. # used/day	All sites: Max. # day used/yr
Increased source test vehicles (LDA)	0.39	0.03	0.07	0.02	0.01	0.00	1.30	-	-	1.30	4	98
Increased maintenance truck (MDT)	0.10	0.03	0.13	0.04	0.01	0.00	0.08	-	-	1.99	4	98
Total	0.48	0.06	0.20	0.06	0.02	0.00	1.38	-	-	3.29		

Note:

1. It is conservatively assumed in the peak day, there will be an additional 4 source test vehicles (LDA) and 4 maintenance truck (MDT) to all PAR 1469 affected facilities.

2. It is conservatively assumed in the peak year, there will be an additional 98 source test vehicles (LDA) and 98 maintenance truck (MDT) to all PAR 1469 affected facilities.

3. Each LDA and each MDV is assumed to travel round trip up to 40 miles.

4. The increased medium duty truck is for additional waste disposal truck, filter replacement , filter leak inspection and other maintenance work for the APCDs.

Medium-Duty Truck (MDT) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e	VMT, mile/day
g/mile (RUNEX, PMBW, PMTW, Fugitive)	0.26	0.08	0.37	0.10	0.02	0.00	505.00			505.00	40.0
g/vehicle (IDLEX)	0.33	0.05	0.01	0.01	0.02	0.00	139.57			139.57	
lb/day, MT/day for GHG	0.02	0.01	0.03	0.01	0.00	0.00	0.02	-	-	0.02	

EF: from EMFAC2014, EPA AP-42

Light-Duty Automobiles (LDA) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e	VMT, mile/day
g/mile (RUNEX, PMBW, PMTW, Fugitive)	1.10	0.10	0.20	0.06	0.03	0.00	330.83			330.83	40.0
lb/day, MT/day for GHG	0.10	0.01	0.02	0.01	0.00	0.00	0.01	-	-	0.01	

EF: from EMFAC2014, EPA AP-42

ENERGY CALS

Category	EPA/NHTSA Fuel Consumption						
	gal/1,000 ton-mile	ton	1 ton-m/g	mpg	gallon fuel consumed per year due to PAR 1469	Baseline - Year 2016 Estimated Basin Fuel Demand (mmgal/yr)	Total % Above Baseline
Increased source test vehicles (LDA)				20.00	196		
Increased maintenance truck (MDT)				10.00	392		
Total					588	6,997	0.00001% gasoline

Reference:

EPA Fuel Economy report: https://www.epa.gov/fueleconomy/trends-report

National Highway Traffic Safety Administration (NHTSA) vocational vehicle standards, https://www.dieselnet.com/standards/us/fe_hd.php

California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html

Operation- Energy and GHG

HEPA filter and blower

Blower (100 bhp)	Consumption (GW-h/yr)	Consumption in MWh/yr
	0.001788	1.788

Ref: R1420.2 EA

	CO2	CH4	N2O	CO2e
Intensity (lb/MWhr)	702.44	0.03	0.01	704.95
MT/yr for GHG	0.57	0.00	0.00	0.57
Total MT/yr for GHG	75.20	0.00	0.00	75.47

Max. # of blowers (HEPA filter and blower)	Max. Total Energy Consumption (MWh/yr)
132	236.016

*This appendix represents the Final EA calculations.

APPENDIX D

PAR 1469 List of Affected Facilities

Appendix D: PAR 1469 List of Affected Facilities

Facility Name	Facility ID	On Lists Per Government Code §65962.5 Per EnviroStor?	Address	City	Zip	Located Within Two Miles of Airport?	Nearest Sensitive Receptor	Approx. Distance to Nearest Sensitive Receptor (m)
K & L Anodizing Corp	236	No	1200 S Victory Blvd	Burbank	91502	No	Residence	≤25
Cal-Tron Plating Inc	1953	Yes	11919 Rivera Rd	Santa Fe Springs	90670	No	Hospital	>1000
Jan-Kens Enameling Co Inc	3887	No	715 E Cypress Ave	Monrovia	91016	No	Residence	101-200
El Monte Plating Co, Darrel Jensen	4119	Yes	11409 Stewart St	El Monte	91731	No	Residence	≤25
Alco Cad-Nickel Plating Corp	4346	No	1400 Long Beach Ave	Los Angeles	90021	No	Residence	51-75
Accu Chrome Plating Co Inc	5137	No	115 W 154Th St	Gardena	90248	No	Residence	501-1000
Chromal Plating Co	6616	No	1748 N Workman St	Los Angeles	90031	No	Residence	≤25
Angelus Plating Wks	6842	Yes	1713 W 134Th St	Gardena	90249	No	Residence	201-300
Anodyne Inc	7011	No	2226-223 S Susan St	Santa Ana	92704	No	School	>1000
Electrolizing Inc	7978	No	1947 Hooper Ave	Los Angeles	90011	No	Residence	26-50
Verne'S Chrome Plaitng Inc	8172	No	1559 W El Segundo Blvd	Gardena	90249	No	Residence	≤25
Omni Metal Finishing Inc	8408	Yes	11665 Coley River Cir	Fountain Valley	92708	No	Residence	101-200
Reuland Electric Co, H. Britton Lees	8820	No	17969 Railroad St	City Of Industry	91748	No	N/A	>1000
Cal Electroplating Inc	9120	Yes	3517 E Olympic Blvd	Los Angeles	90023	No	Residence	≤25
South West Plating Co	9489	No	1344 W Slauson Ave	Los Angeles	90044	No	Residence	26-50
Electronic Chrome Grinding Co Inc	10005	No	9128-32 Dice Rd	Santa Fe Springs	90670	No	Residence	76-100
Bronzeway Plating Corp	11174	No	3432 E 15Th St	Los Angeles	90023	No	Residence	201-300
Hixson Metal Finishing	11818	Yes	829 Production Pl	Newport Beach	92663	No	Residence	26-50
All American Manufacturing Co	11997	No	2201 E 51St St	Los Angeles	90058	No	School	501-1000
Size Control Plating Co Inc	12213	No	13349 E Temple Ave	La Puente	91746	No	School	101-200
Lmdd Enter. Inc., Dixon Hard Chrome, Dba	12748	No	11645 Pendleton St	Sun Valley	91352	Yes	Daycare Center	51-75
Hartwell Corp	12841	Yes	9810 6Th St	Rancho Cucamonga	91730	Yes	Residence	201-300
Barry Ave Plating Co Inc	13618	No	2210 Barry Ave	Los Angeles	90064	No	Residence	51-75
Chromplate Company	13844	No	1127 W Hillcrest Blvd	Inglewood	90301	Yes	School	201-300
Van Nuys Plating Inc	13945	No	6109 Vesper Ave	Van Nuys	91411	No	Daycare Center	< 25
S & K Plating Inc	15021	No	2727 N Compton Ave	Compton	90222	No	Residence	26-50
Anaplex Corp	16951	No	15547 Garfield Ave	Paramount	90723	No	Residence	301-500
Steve'S Plating Corporation	17098	No	3101-111 N San Fernando Blvd	Burbank	91504	Yes	Residence	N/A
Kryler Corp	17168	No	1217 E Ash Ave	Fullerton	92831	No	Residence	301-500
A-H Plating Inc	17812	Yes	1837 N Victory Blvd	Burbank	91504	Yes	Residence	201-300
Techplate Engineering Co	18118	No	1571 S Sunkist St	Anaheim	92806	No	Residence	301-500
Orange County Plating Co Inc	18414	Yes	940-70 N Parker St	Orange	92867	No	Residence	301-500
Christensen Plating Wks Inc	18460	No	2455 E 52Nd St	Vernon	90058	No	School	501-1000
Stutzman Plating Co	18845	No	5045 Exposition Blvd	Los Angeles	90016	No	Residence	110-150
Bowman Plating Co Inc	18989	No	2631 E 126Th St	Compton	90222	No	Residence	51-75
Pemaco Metal Processing Corp	19234	No	2125 Lemon St	Alhambra	91803	No	Residence	101-200
Metal Surfaces Inc	20280	No	6048-60 Shull St	Bell Gardens	90201	No	Residence	51-75
Aircraft X-Ray Labs Inc	21321	No	5216 Pacific Blvd	Huntington Park	90255	No	Residence	26-50
Coast Plating Inc 1	21593	Yes	128 W 154Th St	Gardena	90248	No	Residence	501-1000
Domar Precision Inc	23594	No	5250 E Southern Ave	South Gate	90280	No	Residence	≤25
Pennoyer-Dodge Co	24129	No	6634 San Fernando Rd	Glendale	91201	No	Residence	≤25
Serv Plating Co Inc	24240	No	1855 E 62Nd St	Los Angeles	90001	No	Residence	26-50

Aaa Plating & Inspection Inc	25087	Yes	424 Dixon St	Compton	90222	No	Residence	≤25
Universal Metal Plating & Polishing	39156	No	1526 W 1St St	Azusa	91702	No	School	>1000
Hawker Pacific Aerospace	40829	No	11240 Sherman Way	Sun Valley	91352	Yes	School	101-200
Lubeco Inc	41229	Yes	6859 Downey Ave	Long Beach	90805	No	Residence	76-100
Brite Plating Co Inc	42645	No	1313 Mirasol St	Los Angeles	90023	No	Residence	101-200
Neutron Plating Inc	42712	Yes	2993 E Blue Star St	Anaheim	92806	No	Residence	501-1000
Brothers Plating	44584	No	334 S Motor Ave	Azusa	91702	No	School	>1000
E.M.E. Inc/Electro Machine & Engineering	45938	No	431 E Oaks St	Compton	90222	No	Residence	51-75
Fine Quality Metal Finishing	47329	No	1640 Daisy Ave.	Long Beach	90813	No	Residence	90
All Metals Processing Of Orange Co Inc	47835	No	8401 Standustrial Ave	Stanton	90680	No	Residence	≤25
Yolandas Plating	52142	No	3419 Union Pacific Ave	Los Angeles	90023	No	Residence	101-200
Quaker City Plating & Silversmith Ltd	52525	No	11729 E Washington Blvd	Whittier	90606	No	Convalescent Home	76-100
Carter Plating Inc	53447	No	1842 N Keystone St	Burbank	91504	Yes	Residence	201-300
Artistic Silver Plating	55661	No	2344 Orange Ave	Signal Hill	90806	Yes	Residence	26-50
Maxima Enterprises, Inc.	62731	No	23920 S Vermont	Harbor City	90710	No	Residence	76-100
Crown Chrome Plating Inc	70220	No	14660 Arminta St	Van Nuys	91402	No	Residence	201-300
Aerodynamics Plating Co Inc	74131	No	13620 S St Andrews Pl	Gardena	90815	No	Residence	101-200
Ponam Ltd, Inc	78083	No	6618 San Fernando Rd	Glendale	91201	No	Residence	≤25
Palm Springs Plating	80799	No	345 Del Sol Rd	Palm Springs	92262	Yes	Residence	101-200
Dnr Industries, Inc.	82730	No	1558- S Anaheim Blvd	Anaheim	92805	No	Residence	301-500
Roto-Die Company Inc	92753	No	712 N Valley St	Anaheim	92801	Yes	Residence	101-200
Decore Plating	98554	Yes	434 W 164Th St	Carson	90248	No	Residence	≤25
Moog, Inc (Hard, Ano)	102334	No	20263 S Western Ave	Torrance	90501	No	N/A	>1000
Hightower Plating & Manufacturing Co	103703	No	2090 N Glassell Blvd	Orange	92865	No	Residence	501-1000
Valley-Todeco, Inc	106838	No	12975 Bradley Ave	Sylmar	91342	No	Residence	501-1000
Markland Manufacturing Inc	107149	No	1111 E Mcfadden Ave	Santa Ana	92705	No	Residence	51-75
Cppg, Inc	107644	No	3911 E Miraloma Ave	Anaheim	92806	No	Residence	201-300
Mjb Chrome Plating & Polishing	108315	No	236 S Riverside Ave	Rialto	92376	No	Residence	101-200
Valley Plating Works Inc	109562	Yes	5900 E Sheila St	Commerce	90040	No	Residence	201-300
Chrometech Inc	111005	No	2309 W 2Nd St & 2310 Cape Code	Santa Ana	92703	No	Residence	201-300
Coast Plating Inc 2	112968	No	417 W 164 Th St	Carson	90248	No	Residence	26-50
Alloy Processing	117435	No	1900 W Walnut	Compton	90220	No	Residence	400
Product Engineering Corporation	117804	No	2645 Maricopa St	Torrance	90503	No	Residence	101-200
Bowman Field, Inc, Chrome Nickel Platin	118602	No	2820 E Martin L King Jr Blvd	Lynwood	90262	No	Residence	26-50
Dynamic Plating	120704	Yes	952 W 9Th St	Upland	91786	No	Residence	201-300
Barken'S Hardchrome, Inc	121215	Yes	239 E Greenleaf Blvd	Compton	90220	No	Residence	≤25
Metal Finishing Marketers Inc	122365	No	1401 Mirasol St	Los Angeles	90023	No	Residence	101-200
Supreme Plaitng & Coating, L De La Rosa	122432	No	330 E Beach Ave	Inglewood	90302	No	Residence	≤25
Superior Plating And Bumpers	124325	No	1044 E 2 Nd St	Pomona	91763	No	Residence	≤25
Santec, Inc	125806	No	3501 Challenger St	Torrance	90503	No	Residence	N/A
Allen Industrial & Machine	129216		P. O. Box 776	Banning	92220		Residence	101-200
Multichrome/Microplate Co., Inc	129249	No	1013 W Hillcrest Blvd	Inglewood	90301	Yes	Daycare Center	301-500
Mcdonnell Douglas/Boeing Company	131232	No	15400 Graham Ave	Huntington Beach	92647	No	Residence	501-1000
Whiting Enterprises, Inc	131266	No	10140 Romandel Ave	Santa Fe Springs	90670	No	N/A	>1000
Rtr Industries Llc/Grant Piston Ring Co	132074	No	1360 Jefferson St	Anaheim	92807	No	Residence	301-500
Lm Chrome Corp	132333	No	654 E Young St	Santa Ana	92704	Yes	Residence	>1000
Hydroform Usa	133930	No	2848 E. 208Th St.	Carson	90810	No		301-500

Morrell'S Electro Plating, Inc	136913	No	432 E Euclid Ave	Compton	90222	No	Residence	>100
La Habra Plating Company	140017	No	900 S Cypress St	La Habra	90631	No	Residence	51-75
Ducommun Aerostructures Inc	140811	No	801 Royal Oak Dr	Monrovia	91016	No	Residence	101-200
Electrode Tech Inc, Reid Metal Finishing	143630	Yes	3110 W Harvard St	Santa Ana	92704	No	School	101-200
C&M Gold Plating, Adalberto Coldivar C	144272	No	948 W Industrial St	Azusa	91702	No	N/A	>1000
Andres Technical Plating	144438	No	1055 Ortega Way	Placentia	92870	No	School	101-200
Beo-Mag Plating Inc	146448	No	3315 W Harvard St	Santa Ana	92704	No	School	301-500
Aviation Repair Solutions Inc	147364	No	1480 Canal Ave	Long Beach	90813	No	Residence	501-1000
Fullerton Custom Works Inc	148373	No	1163 E Elm St	Fullerton	92831	No	Residence	301-500
Magma Finishing Corp.	148451	No	2294 N Batavia St D	Orange	92865	No		
Rebilt Metalizing Co	150363	No	2229 E 38Th St	Vernon	90058	No	Hospital	501-1000
South Bay Chrome	152888	No	2041 S Grand Ave	Santa Ana	92705	No	School	>1000
Tool & Jig Plating Company, A. Williams	153762	No	7635 S. Baldwin Place	Whittier	90602	No	Residence	N/A
A & Z Grinding, Inc	154758	No	1543 Nadeau St	Los Angeles	90001	No	Residence	≤25
Gardena Specialized Processing Inc	158699	No	16520 S Figueroa St	Gardena	90248	No	Residence	26-50
Ceo-To-Go/Ride Wright Wheels	166355	No	3080 E. La Jolla St	Anaheim	92806	No		301-500
Pacific Chrome Services	173247	No	603 E. Alton Ave.	Santa Ana	92705	No		501-1000
Triumph-Embee	173913	No	2136-68 S Hathaway St	Santa Ana	92705	No	Residence	101-200
Shimadzu Precision Instruments, Inc.	177256	No	3645 N. Lakewood Blvd.	Long Beach	90808	Yes		
Platinum Surface Coating	177440	No	1179 N. Fountain Way	Anaheim	92806	No		201-300
Allfast Fastening Sys Inc	178908	No	15200 Don Julian Rd	City Of Industry	91745	No	School	501-1000
Nasmyth Tmf, Inc.	179008	No	3401 Pacific Ave	Burbank	91505	Yes	School	26-50
Chromadora	180575	Yes	2515 S. Birch St.	Santa Ana	92707	No		301-500
V&M Aerospace Llc	180918	Yes	14024 S Avalon Blvd	Los Angeles	90061	No	Residence	201-300
Sunvair, Inc.	181234	No	29145 The Old Road	Valencia	91355	No		
Triumph Processing Inc	800267	No	2588-2605 Industry Way	Lynwood	90262	No	Daycare Center	101-200

Total = 115 facilities

NAICS codes for PAR 1469 affected facilities

Industry	NAICS Code	# of Facilities
Fabricated Metal Manufacturing	**332**	**93**
Metal Crown, Closure, and Other Metal Stamping (except Automotive)	332119	1
Saw Blade and Handtool Manufacturing	332216	1
Machine Shops	332710	3
Bolt, Nut, Screw, Rivet, and Washer Manufacturing	332722	2
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	332812	2
Electroplating, Plating, Polishing, Anodizing, and Coloring	332813	82
Plumbing Fixture Fitting and Trim Manufacturing	332913	2
Other Manufacutring	**333-337**	**12**
Other Industrial Machinery Manufacturing	333249	1
Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	333514	1
Cutting Tool and Machine Tool Accessory Manufacturing	333515	1
Other Measuring and Controlling Device Manufacturing	334519	2
Motor and Generator Manufacturing	335312	1
Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	336310	1
Other Motor Vehicle Parts Manufacturing	336390	1
Aircraft Manufacturing	336411	1
Other Aircraft Parts and Auxiliary Equipment Manufacturing	336413	2
Showcase, Partition, Shelving, and Locker Manufacturing	337215	1
Wholesale and Retail Trade	**42, 44**	**2**
Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	423860	1
Motorcycle, ATV, and All Other Motor Vehicle Dealers	441228	1
Professional, Scientific, and Technical and Other Services	**54, 56**	**5**
All Other Professional, Scientific, and Technical Services	541990	1
All Other Support Services	561990	4
Repair and Maintenance	**811**	**3**
Automotive Body, Paint, and Interior Repair and Maintenance	811121	1
Other Electronic and Precision Equipment Repair and Maintenance	811219	1
Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance	811310	1
Total		**115**

APPENDIX E

PAR 1469 Comment Letters Received on the Draft EA and Responses to Comments

Comment Letter #1

From: Sam Wang
To: Neil Fujiwara; Eugene Kang; Robert Gottschalk; Barbara Radlein; Daphne Hsu; Shah Dabirian
Cc: Susan Nakamura; Jillian Wong; Michael Krause
Subject: FW: Comments from CHEMEON Surface Technology for CEQA Public Review re: PAR 1469 Hexavalent Chromium Emissions
Date: Friday, March 16, 2018 12:11:39 PM
Attachments: 12239-CHEM-18-Seal-Ad-Resize-for-Client-hp1.pdf
CHEMEON TCP HF NP as an Anodic Seal Study-email.pdf
Naval Power and Force Projection Article CHEMEON SCAOMD Hex Chrome Emissions July 17.pdf

FYI, CHEMEON's written comments for PAR1469

From: Ted Ventresca [mailto:tventresca@chemeon.com]
Sent: Thursday, March 15, 2018 6:24 PM
To:
Subject: Comments from CHEMEON Surface Technology for CEQA Public Review re: PAR 1469 Hexavalent Chromium Emissions

Good Afternoon Mr. Wang.

As per the February 15th notice provided by Ms. Radlein, the following comments are submitted to the CEQA within the 32 public review period by CHEMEON Surface Technology:

Viable MIL-SPEC alternatives to replace hexavalent chromium (a.k.a. sodium dichromate/dilute chrome) exist, such as CHEMEON TCP-HF (Hexavalent Free) and TCP-NP (No Prep) that wholly remove the substances being regulated in PAR 1469 (dichromate seals in particular). There is ample 3rd part evidence that these chemistries can be used in lieu of hexavalent chromium, thus reducing the health risks as well as the financial burden of increased regulation and the potential of associated penalties for lack of compliance to PAR 1469.

CHEMEON has just released the attached report (CHEMEON TCP-HF and CHEMEON TCP-NP as an Anodic Seal.pdf) which provides in-depth detail and third party validation surrounding CHEMEON TCP-HF (Hexavalent Free) and TCP-NP (No-Prep) as an Anodic Seal.

The report validates and reconfirms that CHEMEON TCP-HF and NP are a safe, non carcinogenic and cost/energy saving anodic seal solutions while eliminating carcinogenic Cr(VI) emissions, potential fines and plant/shop closures.

These findings were presented at the Florida Finishing Association Conference in early February and the presentation received quite positive response/interest.

We anticipate that these findings, coupled with the technical expertise provided by CHEMEON will:

1. Aid a process shop in obtaining a variance from a Prime Contractor or OEM to allow CHEMEON TCP-HF or CHEMEON TCP-NP as a direct replacement for specified or currently used sodium dichromate seal chemistry.

and/or

2. Provide the Prime Contractor or OEM specification custodians and Quality Control stakeholders the data and validation necessary to change their existing specifications to allow CHEMEON TCP-HF or CHEMON TCP-NP on the part being processed, as an anodic seal.

3. Allow for CEQA/SCAQMD recognition and possible recommendation of CHEMEON as a safe and proven alternative to the existing practice and use of hexavalent chrome (Cr(VI), (sodium dichromate /dilute chrome.)

Key aspects of the report are as follows:

- Third Party validation that CHEMEON TCP-HF (Hexavalent Free) and NP (No Prep) meet and exceed MIL SPEC performance as a room temperature anodic seal
- TCP-HF and TCP-NP applied as anodic seal demonstrated corrosion performance that greatly exceeds the specification requirements.
- After sealing with TCP-HF and TCP-NP, the anodize coating passed paint adhesion for both Type II and Type IIB on 2024 and 7075 alloys.
- Corrosion NSS (Neutral Salt Spray) testing revealed that both forms of TCP prevented corrosion on Type II anodize extremely well: no pits were seen after 2,000 hours of testing.
- The TCP seals on thinner Type IIB anodize show some pits visible after 1,648 hours of testing. However, this corrosion did not advance into salt spray failure during the 2,000 hours of neutral salt spray testing.
- Even with thin anodized coatings, TCP seals provide corrosion protection which far surpasses the 336 hour requirement.

We have also provided one sheet overview of the attributes of CHEMEON TCP-HF as an Anodic Seal. In addition, the recent Naval Power and Force Projection Magazine Article is attached (pdf) that details the "top priority" status California and SCAQMD has given to the removal/reduction of hexavalent chromium emissions and the proven safe solution that CHEMEON provides.

If you would like to discuss this report and its finding further, or learn how CHEMEON can aid prime contractors and process shops in their efforts to replace hexavalent chrome, please feel free to contact me. I plan to attend the Friday March 16th meeting in Diamond Bar and look forward to meeting at that time.

Respectfully,

Ted Ventresca
President & Chief Operating Officer
Direct: 775.301.5733 | tventresca@chemeon.com

Response to Comment Letter #1 - CHEMEON

Thank you for your letter. This email does not appear to raise any CEQA issues relative to the analysis in Draft EA or the PAR 1469 rule language. Therefore, no further response is required.

Comment Letter #2

OC Public Works
Integrity, Accountability, Service, Trust
Shane L. Silsby, Director

March 20, 2018 NCL-2018-011

Sam Wang
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Subject: Proposed Amended Rule 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Dear Mr. Wang:

The County of Orange has reviewed the Draft Environmental Assessment to the Proposed Amended Rule 1469 and has no comments at this time. We would like to be advised of any further developments on the project. Please continue to keep us on the distribution list for future notifications related to the project.

If you have any questions, please contact Ashley Brodkin in OC Development Services at (714) 667-8854.

Sincerely,

Richard Vuong, Manager, Planning Division
OC Public Works Service Area/OC Development Services
300 North Flower Street
Santa Ana, California 92702-4048
Richard.Vuong@ocpw.ocgov.com

300 N. Flower Street, Santa Ana, CA 92703
P.O. Box 4048, Santa Ana, CA 92702-4048
www.ocpublicworks.com
714.667.8800 | Info@OCPW.ocgov.com

Response to Comment Letter #2 – Orange County Public Works

Thank you for your email. Your comments do not appear to raise any CEQA issues relative to the analysis in Draft EA or the PAR 1469 rule language. Therefore, no further response is required.

ATTACHMENT J

Proposed Amended Rule 1469

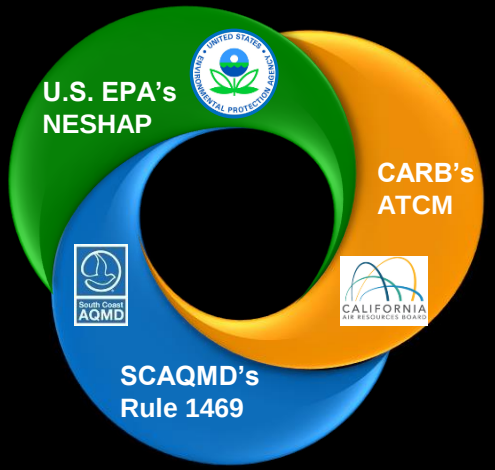
Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing

Governing Board Meeting

September 7, 2018

Background

- Rule 1469 was adopted in 1988*
- Rule 1469 regulates chromium electroplating and chromic acid anodizing tanks
- Rule 1469 implements
  - CARB's Air Toxics Control Measure (ATCM)
  - U.S. EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP)
- Hexavalent chromium is a known human carcinogen – potent metal toxic air contaminant



* Adopted originally as Rule 1169

Path to PAR 1469

Proposed Amended Rule 1469

High level of hexavalent chromium at ambient monitors near 3 chromic acid anodizing facilities

Emissions testing identified unregulated tanks with hexavalent chromium emissions **300% above** proposed standard

Building cross-drafts contributed to high levels of hexavalent chromium

Community Concerns

Toxicity of Hexavalent Chromium

Compliance Costs

Rule Development Challenges

Health Concerns Chemical Fume Suppressants

Military Specifications

Small Business Impacts

Extensive Rule Development Process

Working Group Meetings

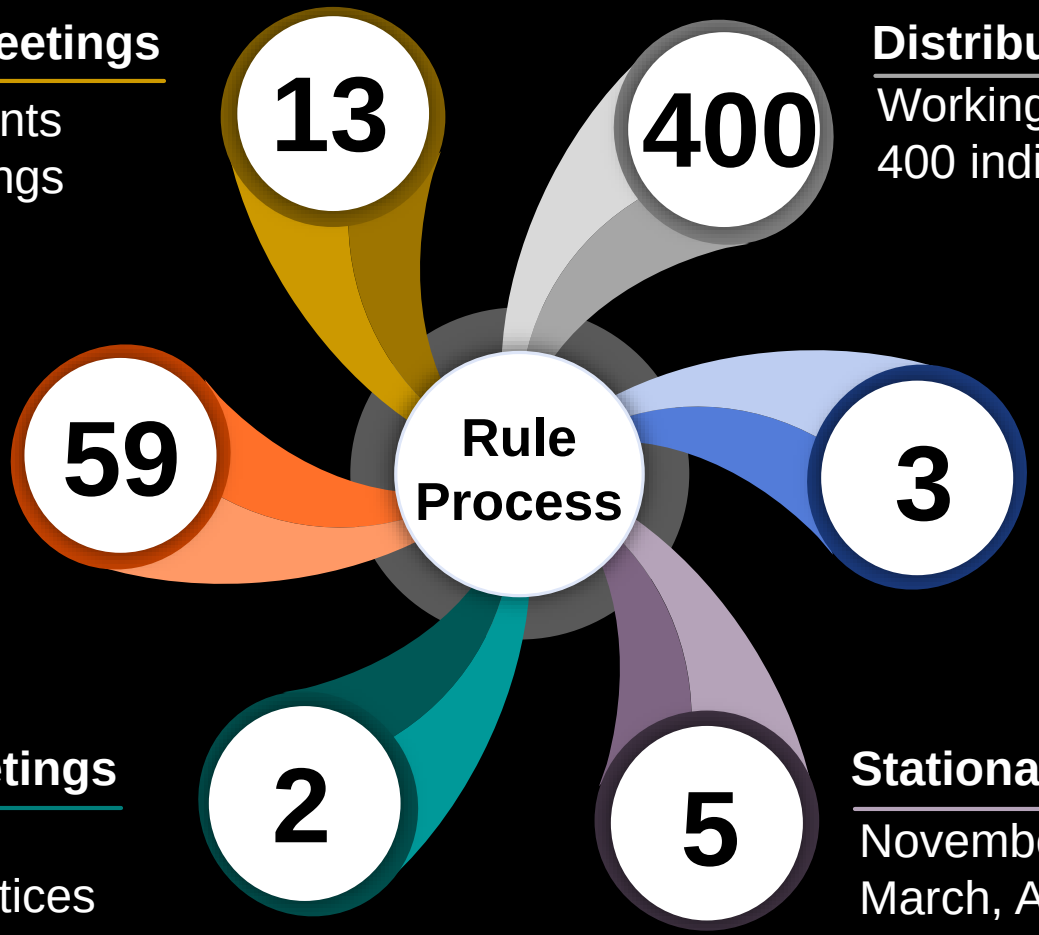
About 100 participants
2 community meetings

Facility Site Visits

Initiated in 2015

Informational Meetings

El Monte and Boyle Heights ~1,500 Notices



Distribution List

Working Group – 400 individuals

Public Workshops

4,000 Public Notices

Stationary Source Briefings

November 2017, and February, March, April and July 2018

PAR 1469 Core Provisions

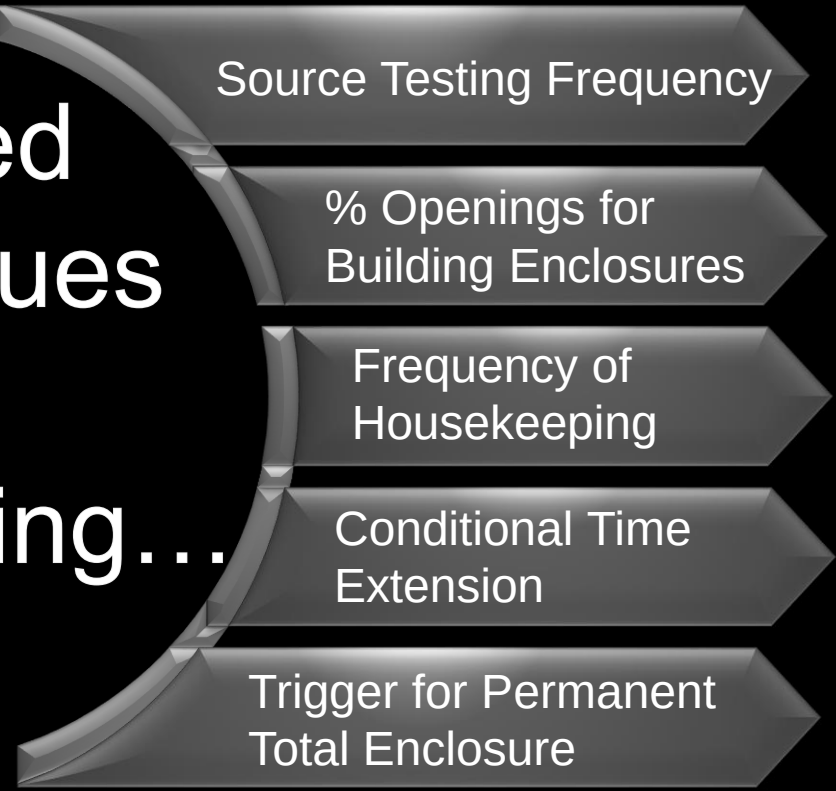
Emission Standards for Unregulated Hexavalent Chromium Tanks

New Building Enclosure Requirements

New Periodic Source Testing and Enhanced Parameter Monitoring

Enhanced Housekeeping and Best Management Practices

Addressed Many Issues During Rulemaking…



While Protecting Core Provisions

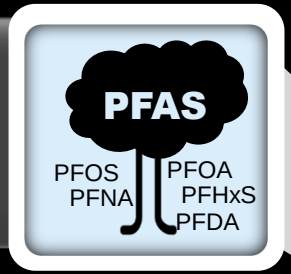
- Source Testing Frequency
- % Openings for Building Enclosures
- Frequency of Housekeeping
- Conditional Time Extension
- Trigger for Permanent Total Enclosure

Key Remaining Issues

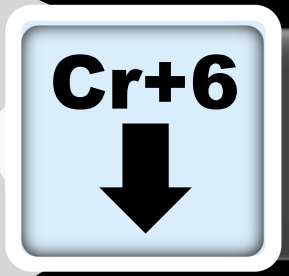
- Issue #1: Use of chemical fume suppressants
  - Environmental and community groups have commented that non-PFOS chemical fume suppressants should be banned due to potential health impacts
  - Industry stakeholders have commented that if non-PFOS chemical fume suppressants are banned, installation of pollution controls may be too costly for smaller facilities and result in facility closures
- Issue #2: Implementation of Proposed Amended Rule 1469 is too costly and may result in facility closures

Non-PFOS Chemical Fume Suppressants

Contains PFAS Chemicals Same Chemical "Family" as PFOS



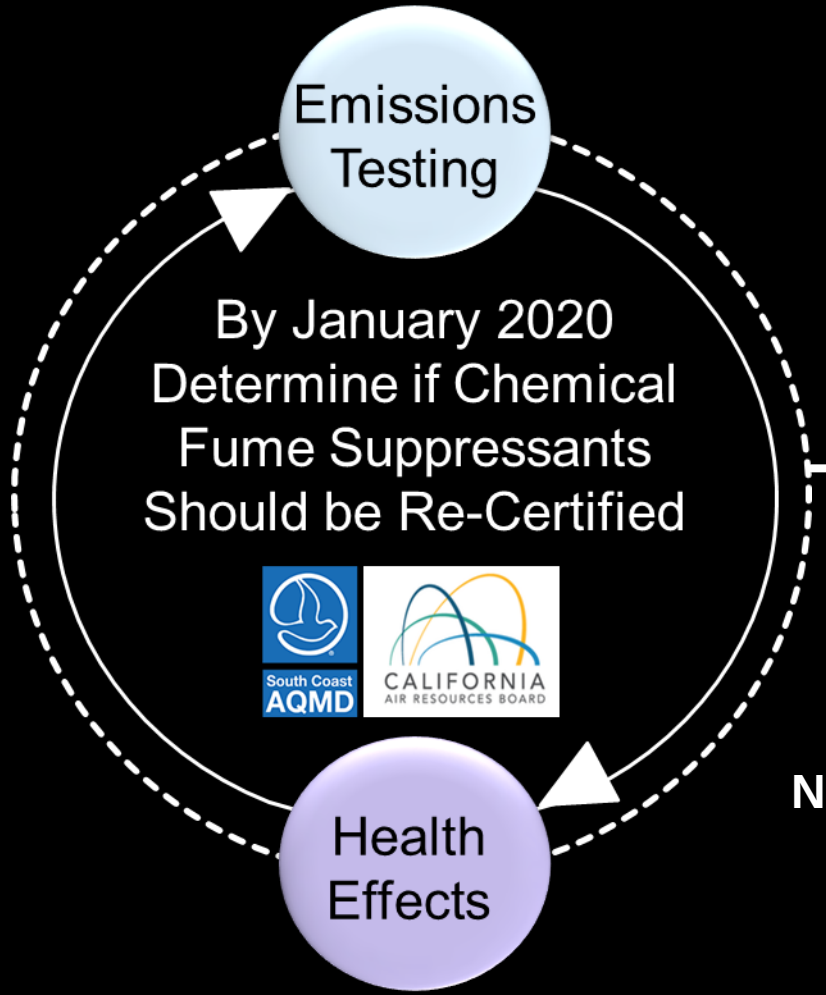
Emissions Testing and Further Analysis of Health Impacts Needed



Reduces Hexavalent Chromium Emissions By 99%

Low Cost Compliance Option for Lowest Throughput Facilities

Re-Evaluation of Fume Suppressants



Certified

Continue Using Chemical Fume Suppressants

Not Certified

Option 1:
Use SCAQMD Approved Technology
(SCAQMD Conducts Source Testing)

Seek Low-Cost Option with Same Emission Benefits

Option 2:
Install Pollution Controls by July 2021

Seek Funding to Assist Small Users

Option 3:
Phase-Out Use of Hexavalent Chromium by July 2022

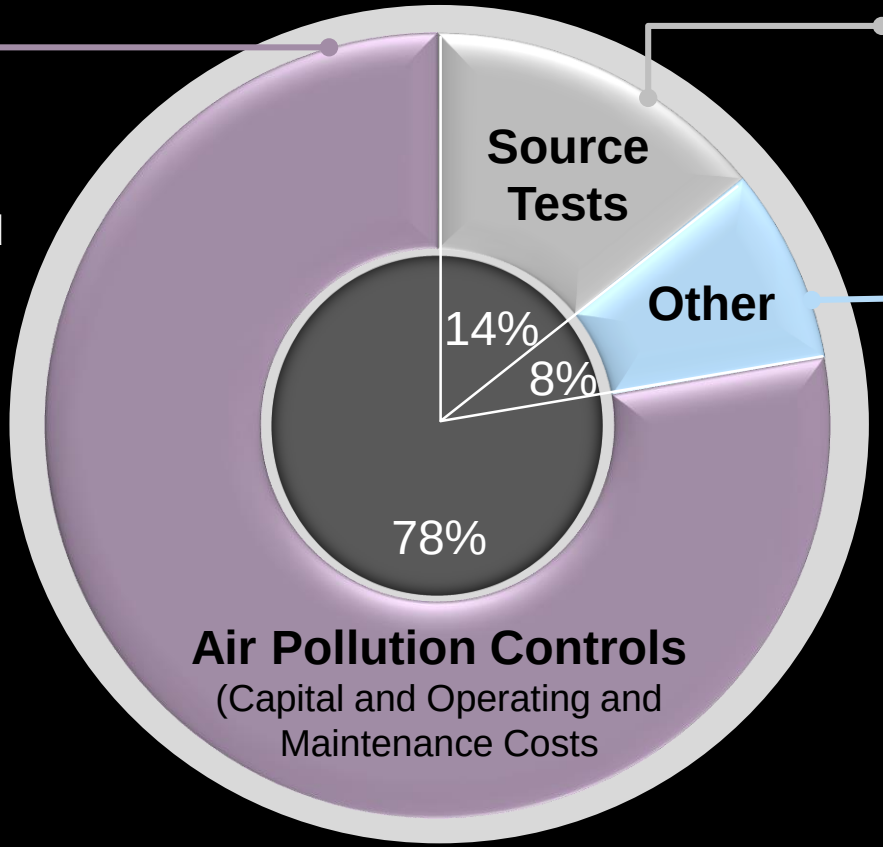
Socioeconomic Impact Analysis

- Cost assumptions developed with the Metal Finishing Association of Southern California
- Staff conservatively assumed:
  - Tier II tanks would install controls despite lower cost compliance options
  - Facilities solely using fume suppressants would install controls regardless of lower cost approved compliance options and funding
- Analysis based on facility-specific information for all 115 facilities
- Included a facility-based cost-to-revenue analysis*
  - Facility revenue information from Dun and Bradstreet
  - Same cost assumptions as regional socioeconomic analysis

* 2014 Abt audit recommended that SCAQMD expand its small business impacts analysis

Summary of Cost Considerations

- Air pollution controls needed for high emitting Tier III tanks
- If fume suppressants not certified
  - Commitment to seek funding
  - Commitment to find low cost compliance option



- Reduced source testing frequency
- Allows screening source test

- Low cost options to meet building enclosure requirements
- More specificity for housekeeping provisions – while maintaining frequency

Socioeconomic Impacts

PAR 1469 Facility Impacts Analysis

- Average annual cost ranges from $2.6 to $4.3* Million
- Average annual cost per facility ranges from $22,000 to $36,000
- Facility average cost to revenue ranges from 1.8% to 3.3%*
- Includes capital, operating, and maintenance costs

PAR 1469 Job Impacts Analysis

- Approximately 37 to 63 regional jobs forgone annually (jobs not created in the future)

* Assumes fume suppressants will not be certified and smaller facilities would install pollution controls

Resolution Commitments

Alternatives to Hexavalent Chromium	Phasing Out Hexavalent Chromium	Assistance for Small Plating Facilities If Fume Suppressants are Not Re-certified
Conduct pilot study and technology assessment for alternatives to hexavalent chromium	Support statewide effort to phase-out hexavalent chromium, where appropriate	Seek funding and identify low cost alternatives

Recommendation

- Approve the Environmental Assessment
- Adopt Proposed Amended Rule 1469

Back to Agenda

BOARD MEETING DATE: September 7, 2018 AGENDA NO. 32

REPORT: Receive and File 2017 Annual Report on AB 2588 Program and Approve Updates to Facility Prioritization Procedure, AB 2588 and Rule 1402 Supplemental Guidelines, and Guidelines for Participating in Rule 1402 Voluntary Risk Reduction Program

SYNOPSIS: The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) requires local air pollution control districts to prepare an annual report. The report provides the public with information regarding SCAQMD programs to reduce emissions of toxic air contaminants. This annual update describes the various activities in 2017 to satisfy the requirements of AB 2588 and Rule 1402, such as quadrennial emissions reporting and prioritization, the preparation and review of Air Toxics Inventory Reports, Health Risk Assessments, Voluntary Risk Reduction Plans, Risk Reduction Plans, and additional SCAQMD activities related to air toxics. Staff is also updating the Facility Prioritization Procedure, the AB 2588 and Rule 1402 Supplemental Guidelines, and the Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program to update information and provide more clarity for the implementation of AB 2588 and Rule 1402. These actions are to receive and file the 2017 Annual Report on the AB 2588 Air Toxics “Hot Spots” Program, and to approve revisions to: 1) Facility Prioritization Procedure for the AB 2588 Program; 2) AB 2588 and Rule 1402 Supplemental Guidelines; and 3) Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program.

COMMITTEE: Stationary Source, June 15, 2018, Reviewed

RECOMMENDED ACTIONS:

1. Receive and File:
   a. 2017 Annual Report on the AB 2588 Program.

2. Approve updates to the following guidance documents:
   a. Facility Prioritization Procedure for the AB 2588 Program;
   b. AB 2588 and Rule 1402 Supplemental Guidelines; and
   c. Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program.

Wayne Nastri
Executive Officer

PF:SN:JW:VM

Introduction

As required under the California Health and Safety Code Section 44363, staff has prepared the "2017 Annual Report on the AB 2588 Program." This annual report summarizes SCAQMD's air toxics program activities in 2017, including the Air Toxics "Hot Spots" Information and Assessment Act (or AB 2588) activities, rule development activities, and other air toxic related programs, such as analysis and review of the final version of U.S. EPA's National-Scale Air Toxics Assessment (NATA) for 2014, air toxic source testing, and air toxic monitoring efforts. The annual report will be available on SCAQMD's website and distributed to county boards of supervisors, city councils, and local health officers.

Background

The AB 2588 Program, combined with implementation of Rule 1402, includes requirements for toxic emissions inventories, categorizing and prioritizing facilities, and reviewing and approving detailed Air Toxic Inventory Reports (ATIRs), Health Risk Assessments (HRAs), public notifications, Voluntary Risk Reduction Plans (VRRPs) and Risk Reduction Plans (RRPs). Rule 1402 reduces the health risk associated with emissions of toxic air contaminants from existing sources as required by the "Hot Spots" Act.

There are two broad classes of facilities within the AB 2588 Program: core facilities, and facilities in the industry-wide source category. Industry-wide source category facilities are generally small businesses with relatively similar emission profiles (such as gas stations and autobody shops). Facilities that are in an industry-wide source category have fewer requirements under the AB 2588 Program than core facilities. Some industry-wide categories have requirements in source-specific rules to address toxic air contaminants.

Core facilities are required to report their air toxic emissions to SCAQMD quadrennially through the web-based Annual Emissions Reporting (AER) Program. Currently there are 432 facilities in SCAQMD's core AB 2588 Program. Of these 432

facilities that report their air toxic emissions quadrennially, 154 facilities were required to submit their reports in 2017. Additionally, on October 7, 2016, Rule 1402 was amended to add requirements for Potentially High Risk Level facilities that requires submittal of an Early Action Reduction Plan, ATIR, and the concurrent submittal of a HRA and RRP. So far, three facilities have been designated as Potentially High Risk Level facilities under Rule 1402.

From the beginning of the AB 2588 Program in 1987 through the end of 2017, staff has reviewed and approved 339 HRAs from 310 facilities. Of these, 55 facilities were required to perform public notification activities and 27 facilities were required to implement risk reduction measures.

Public Process

Staff is also proposing updates to the Facility Prioritization Procedure, the AB 2588 and Rule 1402 Supplemental Guidelines, and the Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program. The documents were made available on SCAQMD's website at http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588. Staff held a public consultation meeting on July 31, 2018 at SCAQMD headquarters to present a summary of the updates to these documents to stakeholders and receive public comments. Approximately 1,300 stakeholders were notified of the meeting. Further clarifications to the documents were made based on stakeholder feedback received at the meeting.

2017 Accomplishments

The attached report summarizes staff activities in 2017 for the AB 2588 Program, implementation of Rules 1401 and 1402, air toxic monitoring and source testing performed in conjunction with the AB 2588 Program and Rule 1402, dispersion modeling support for Rules 1401 and 1420.2, source-specific air toxic rule development efforts, analysis of toxic program impacts from the addition of new or revised air toxics, and future activities.

Summary of Activities for Specific AB 2588 Program Facilities

In 2017, staff initiated audit activities of quadrennial reports for 40 facilities with priority scores greater than 10 and reviewed a variety of work products submitted by 35 different facilities as a requirement of the AB 2588 Program. Key activities conducted include review of 14 Air Toxics Inventory Reports, three Health Risk Assessments, five Risk Reduction Plans, and 10 Voluntary Risk Reduction Plans. Many of these key activities were for facilities that are in Group I, which are facilities that tend to have more sources and are more complex such as refineries and other industrial facilities. In 2017, facilities that met the eligibility criteria were notified of the option for either submitting a traditional Air Toxics Inventory Report and Health Risk Assessment or a Voluntary Risk Reduction Plan. Of the 13 facilities that were offered the option to prepare either an Air Toxics Inventory Report or Voluntary Risk Reduction Plan, six

facilities selected the Voluntary Risk Reduction Plan option, four facilities selected to prepare an Air Toxics Inventory Report through the traditional AB 2588 process, and three facilities submitted emissions inventory corrections which resulted in revised priority scores of less than 10. One facility was notified as a Potentially High Risk Level facility. Overall, a total of 76 documents were reviewed in 2017 with some facilities having multiple documents submitted for staff review. Table 1 lists the facilities that either had an Air Toxics Inventory Report (ATIR), Health Risk Assessment (HRA), or Risk Reduction Plan (RRP) reviewed by staff in 2017. The attached Annual Report provides detailed information regarding the AB 2588 Program activities at each facility.

Table 1 – AB 2588 Program Facilities in 2017

Facility Name	ID No.	Facility Name	ID No.
Aerocraft	23752	Matrix Oil	182970
All American Asphalt	132954	MM West Covina*	113873
Anadite*	8015	Orange County Sanitation District, Fountain Valley*	17301
Anaplex	16951	Orange County Sanitation District, Huntington Beach*	29110
Boral Roofing	1073	Phillips 66 Carson Refinery*	171109
Bowman Plating Company	18989	Phillips 66 Wilmington Refinery*	171107
Chevron Products Co. *	800030	Quemetco	8547
Equilon Enter. LLC, Shell Oil Prod. US*	800372	So Cal Gas Co./Playa Del Rey Storage Facility	8582
Fontana Paper Mills	11716	SoCal Holding, LLC*	169754
Gerdau/TAMCO	18931	Tesoro Calciner*	174591
Glendale City Water and Power*	800327	Tesoro Los Angeles Refinery*	800436 174655 174694 174703
Griswold Industries	800318	Tesoro Sulfur Recovery Plant*	151798
GS II, Inc.*	183567	Torrance Refining*	181667
Hixson Metal Finishing	11818	Triumph Processing	800267
Hyperion Water Reclamation Plant, City of Los Angeles Bureau of Sanitation*	800214	UC Irvine*	800288
Kaiser Aluminum	16338	Ultramar (Valero) Refinery*	800026
LA City, Bureau of Street Maintenance	116480	Universal City Studios*	800202
Lubeco	41229		

Note: * indicates facilities notified to prepare either an ATIR or a VRRP.

Air Monitoring and Source Testing Activities to Support the AB 2588 Program
Staff also engages in air toxics monitoring and air toxics source testing at and near many facilities. Based on monitoring efforts of hexavalent chromium in Paramount, SCAQMD found high levels near two facilities: Aerocraft Heat Treating Company and Anaplex Corporation. Both Aerocraft and Anaplex were designated as Potentially High Risk Level Facilities under Rule 1402 in 2016. Additional monitoring in locations approximately one mile to the southeast also found high levels of hexavalent chromium near Lubeco, Inc. As a result, Lubeco, Inc. was designated as a Potentially High Risk Level Facility in September 2017. Emissions monitoring near the facilities revealed sources of hexavalent chromium that SCAQMD was not aware of and were unregulated. As a result, rulemaking was initiated to establish emission reduction requirements for these sources.

In July 2017, staff began special air monitoring in the city of Compton to measure levels of hexavalent chromium near several metal-processing facilities in the community, with an emphasis on chromium plating and anodizing plants due to their close proximity to each other and to sensitive receptors. This effort will determine whether these facilities pose a significant health risk to the community. Staff will continue to identify high-risk facilities, prioritize them based on the degree of risk and take action to immediately reduce emissions.

Rules 1401 and 1420.2 Dispersion Modeling Review
In 2017, staff processed approximately 2,100 Rule 1401 applications for 1,300 facilities. Under Rule 1401, staff reviews new and modified permit applications to ensure that the health risk thresholds are not exceeded. Staff also reviews and verifies air quality and HRA analyses for Hearing Board cases. In 2017, staff reviewed and approved 20 HRAs for permit projects.

Under Rule 1420.2, air dispersion modeling is used to identify the appropriate location for placement of ambient air monitors. In 2017, staff approved four ambient monitoring plans for Rule 1420.2 facilities.

National Air Toxics Assessment
Every three years, beginning in 1996, the U.S. EPA prepares a National Air Toxics Assessment (NATA).[1] Staff coordinates with U.S. EPA staff to ensure that NATA incorporates the best available local emissions data. The current triennial inventory process began in September 2016 for the purpose of reviewing data from the 2014 National Emissions Inventory. Staff initiated review of data from approximately 70 facilities determined to be high risk within the SCAQMD's jurisdiction. Following the investigation, staff made several corrections to emissions, source characteristics,

[1] The U.S. EPA's web portal is at: https://www.epa.gov/national-air-toxics-assessment

process, pollutants, and stack parameters for approximately 20 facilities. This information was provided to U.S. EPA in May 2017.

Rules Adopted or Amended in 2017

During 2017, four toxic rules were adopted or amended: 1) Rule 1430 – Control of Emissions from Metal Grinding Operations at Metal Forging Facilities, adopted in March; 2) Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants, adopted in July and amended in December; 3) Rule 1401 – New Source Review of Toxic Air Contaminants, amended in September; and 4) Rule 1420 – Emissions Standard for Lead, amended in December.

Future Activities

In addition to the routine AB 2588 Program implementation activities, staff plans to:

- Audit quadrennial emissions inventories for 50 facilities;
- Develop proposed Rules 1407.1, 1410, 1435, and 1480[2];
- Develop proposed amended Rules 1403, 1407, and 1469[3];
- Track development of potential Reference Exposure Level (REL) revisions by OEHHA for hexamethylene diisocyanate and toluene; and
- Continue to work with CARB and through the California Air Pollution Control Officers Association (CAPCOA) Toxics and Risk Managers Committee to develop HRA guidelines for the industry-wide category of gasoline dispensing facilities.

Updates to the Facility Prioritization Procedure, the AB 2588 & Rule 1402 Supplemental Guidelines, and the Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program

In June 2016, the Board adopted revisions to the Facility Prioritization Procedure and the AB 2588 and Rule 1402 Supplemental Guidelines in conjunction with amendments to Rule 1402 that incorporated the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Risk Assessment Guidelines update.

In November 2016, the Board adopted amendments to the Facility Prioritization Procedure by adding a more refined screening process that would more accurately identify high priority facilities and improve staff's ability to focus on the highest

[2] PR 1407.1 – Control of Emissions of Arsenic, Cadmium and Nickel from Ferrous Metal Operations
PR 1410 – Hydrogen Fluoride Use at Refineries (was adopted in 1991 but was suspended the following year)
PR 1435 – Control of Emissions from Metal Heat Treating Processes
PR 1480 – Air Toxics Metal Monitoring

[3] PAR 1403 – Asbestos Emissions from Demolition/Renovation Activities
PAR 1407 – Control of Emissions of Arsenic, Cadmium and Nickel from Non-Ferrous Metal Operations
PAR 1469 – Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

priority facilities. Staff is proposing to update the Facility Prioritization Procedure to incorporate the most recent meteorological dataset (Version 9) and adjusting the calculation of the non-cancer acute score. The proposed revised calculation methodology for non-cancer acute is streamlined to account for short-term exposure at the facility fenceline.

In November 2016, the Board adopted amendments to the AB 2588 and Rule 1402 Supplemental Guidelines to clarify language and by adding guidance on different elements of the AB 2588 Program. Staff is proposing to update the AB 2588 and Rule 1402 Supplemental Guidelines and provide more clarity for implementation of the AB 2588 Program and Rule 1402.

In October 2016, the Board adopted amendments to Rule 1402 to include a Voluntary Risk Reduction Program that allows facilities that commit to reducing their health risk 60 percent below the current risk reduction thresholds in Rule 1402 to use a modified public notification approach. Additionally, the "Guidelines for Participating in Rule 1402 Voluntary Risk Reduction Program" was developed which included information for facilities that elect to participate in the Voluntary Risk Reduction Program. Staff is proposing to update the Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program to provide clarity.

Attachments

1. Annual Report on AB 2588 Air Toxics "Hot Spots" Program
2. Facility Prioritization Procedure for the AB 2588 Program
3. AB 2588 and Rule 1402 Supplemental Guidelines
4. Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program
5. Board Meeting Presentation

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Annual Report on AB 2588 Air Toxics "Hot Spots" Program

September 2018

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Planning, Rule Development and Area Sources
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EXECUTIVE SUMMARY

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) is a key statewide program implemented by air districts to address health risks from existing permitted facilities. State law requires the South Coast Air Quality Management District (SCAQMD) to prepare an Annual Report of activities. This report fulfills that requirement and also provides a summary of staff activities in relation to other toxic air contaminant programs in calendar year 2017.

In 2017, staff reviewed a variety of work products submitted by 35 different facilities as a requirement of the AB 2588 Program. Staff also continued reviewing reports and proposed risk reduction measures for two facilities in the city of Paramount that have been identified as Potentially High Risk Level Facilities (potential cancer risk greater than one hundred in one million or a total acute or chronic HI greater than five). Through SCAQMD's ambient monitoring efforts in the cities of Paramount and Long Beach, staff designated a third facility, Lubeco Inc., in the city of Long Beach as a Potentially High Risk Level Facility.

In addition to AB 2588 Program activities, SCAQMD staff worked on a variety of other toxic programs in 2017, including completing rule development work on the Rule 1401 guidance document, review of the final version of United States Environmental Protection Agency's (U.S. EPA) National Air Toxics Assessment (NATA) for 2014, source testing, and air monitoring efforts. In addition, staff analyzed changes and potential impacts to permitting and AB 2588 from the Office of Environmental Health Hazard Assessment (OEHHA) regarding new or revised toxic air contaminant health values.

1. INTRODUCTION

SCAQMD has a comprehensive air toxics program. At the heart of this program are Rule 1401 – New Source Review of Toxic Air Contaminants, to ensure toxic emissions from new and modified sources do not exceed specified risk levels and Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, which implements various aspects of SCAQMD's AB 2588 Program. AB 2588 is the Air Toxics "Hot Spots" Information and Assessment Act, Health and Safety (H&S) Code Section 44300 et seq. SCAQMD's air toxic program also includes a series of source specific rules that address toxic air contaminants for specific industries or equipment categories.

This report summarizes SCAQMD's air toxics program activities in 2017, including AB 2588 activities, rule development activities, dispersion modeling support for rules and permits, and other air toxic related programs such as ambient monitoring efforts in Paramount, and source testing and air monitoring efforts in support of the AB 2588 Program. This report also satisfies Section 44363 of the California H&S Code that requires SCAQMD to annually prepare and publish a status and forecast report of all AB 2588 Program activities.

The AB 2588 Program, combined with implementation of Rule 1402, includes requirements for toxic emissions inventories, categorizing and prioritizing facilities, reviewing and approving detailed Air Toxics Inventory Reports (ATIR), Health Risk Assessments (HRA), Risk Reduction Plans (RRP), and providing public notification. Rule 1402 was amended on October 7, 2016 to include a provision to allow facilities to participate in a Voluntary Risk Reduction Program. The Voluntary Risk Reduction Program is an alternative to complying with the traditional AB 2588 and Rule 1402 approach that provides facilities that meet specific criteria, an opportunity to reduce health risks below the Notification Risk Level with a Modified Public Notification approach. Qualifying facilities must submit a Voluntary Risk Reduction Plan (VRRP) for approval. The Voluntary Risk Reduction Program will achieve risk reductions both sooner and beyond what is required in the traditional Rule 1402 process. In addition to the Voluntary Risk Reduction Program, amendments included special requirements for Potentially High Risk Level Facilities. Potentially High Risk Facilities have an estimated cancer risk that exceeds 100 in-one-million which must implement an Early Action Reduction Plan while the facility concurrently prepares their Health Risk Assessment and Risk Reduction Plan.

1.1 Background

There are two broad classes of facilities within the AB 2588 Program: core facilities and facilities in the industry-wide source categories. Industry-wide source facilities are generally small businesses with relatively similar emission profiles (such as gas stations and autobody shops). Facilities that are in industry-wide source categories have fewer requirements under AB 2588 than core facilities and are discussed further in Section 2.4 of this report. Core facilities must regularly report their emissions of toxic air contaminants and do the following:

- ***Emissions Reporting*** – Core facilities in the AB 2588 Program submit an air toxics inventory every four years through the Annual Emissions Reporting (AER) Program.

- ***Prioritization*** - From the reported toxic emissions, SCAQMD staff prioritizes facilities, using a state – required procedure approved by the Governing Board, into three categories:

high, intermediate, and low. High priority facilities are then asked to prepare an ATIR or elect to prepare a VRRP, if eligible.

- ***Health Risk Assessment*** - High priority facilities might need to prepare a HRA, if the ATIR indicates that the facility is still considered a high priority.

- ***Public Notice*** - If the health risk reported in the HRA exceeds the Notification Risk Levels in Rule 1402 (a Maximum Individual Cancer Risk (MICR) of ten in one million, a total acute or chronic Hazard Index (HI) of one or the more stringent of either the National Ambient Air Quality Standard (NAAQS) for lead or ambient concentration limit in an applicable SCAQMD rule), then the facility is required to provide public notice to the affected community.

- ***Risk Reduction*** - Facilities with health risks above the Action Risk Levels in Rule 1402 (a MICR of twenty five in one million, cancer burden of one half, a total acute or chronic HI of three, or the NAAQS for lead) must reduce their risks below those levels.

Figure 1 provides an overview of the AB 2588 Program and the different paths a core facility must follow under Rule 1402. Currently there are 432 core facilities in SCAQM's AB 2588 Program.

SCAQMD staff reviews HRAs to ensure they follow methodologies established by OEHHA and the California Air Resources Board (CARB), as required by H&S Code Section 44360(c). The health risk values presented in this Annual Report that were approved prior to 2015 were calculated using the methodologies available at the time of HRA approval, and have not been recalculated based on more recent guidance.[1] OEHHA's HRA Guidelines were revised and approved in early 2015 and takes into account more recent science that has documented greater risks when children are exposed to cancer causing compounds, in addition to other changes. This change in methodology results in residential cancer risks that are about two to six times higher for a given level of exposure compared to the previous methodology. The health risks in all HRAs finalized by SCAQMD staff in 2015 and later were calculated using the 2015 OEHHA HRA Guidelines.

[1] The potential effect of the 2015 OEHHA HRA Guidelines on SCAQMD's AB 2588 Program is discussed in detail in the staff report to amended Rules 212, 1401, 1401.1, and 1402 found here: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-jun1-028.

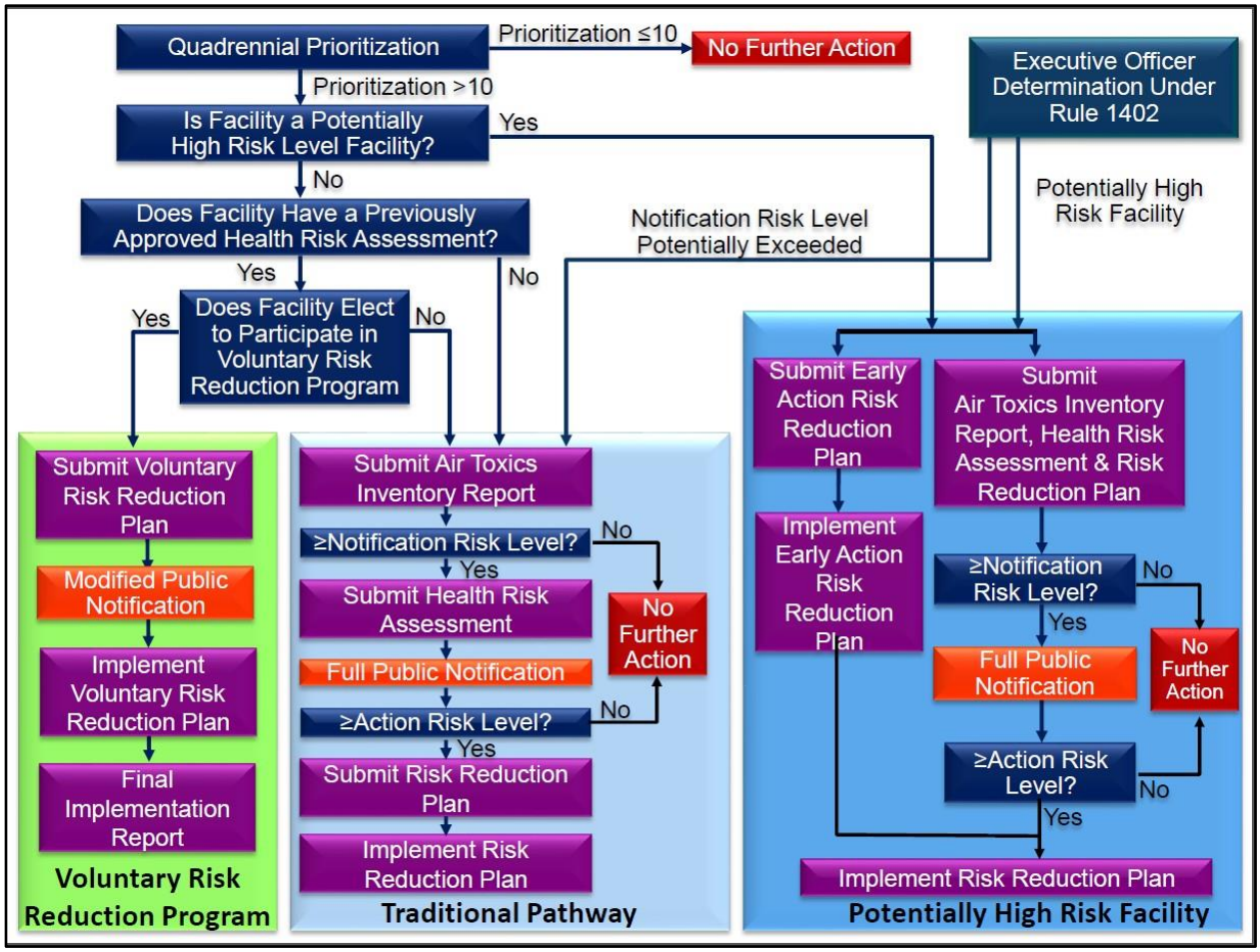

Figure 1 – Overview of the AB 2588 "Hot Spots" Program

From the beginning of the AB 2588 Program in 1987 through the end of 2017, staff has reviewed and approved 339 HRAs from 310 facilities. There are more approved HRAs than facilities as some facilities have prepared more than one HRA. Of these 310 facilities, 27 facilities were required to implement risk reduction measures. 55 were required to perform public notification activities while the remaining facilities were below the public notification threshold. As a result of the AB 2588 Program, about 95 percent of facilities that have been in the Program historically have HRAs demonstrating cancer risks below ten in a million and a hazard index (HI) of less than 1.0 for both non-cancer acute and non-cancer chronic, or their emissions have been low enough to not require an HRA. The approved HRAs illustrated in Figures 2, 3, and 4 are based on the information in Appendix A. Appendix A lists the core facilities and the health risks from their approved HRAs. Table A-1 in Appendix A lists the facilities in order of their cancer risks and Table A-2 in Appendix A is ordered by facility ID. Table A-3 in Appendix A lists facilities which have prepared a RRP for the AB 2588 Program and their corresponding health risks [H&S Code 44363(a) (2) and (3)]. Appendix B shows trends in ambient air toxics in the South Coast Air Basin (Basin). Appendix C contains a list of acronyms and abbreviations used in this report.

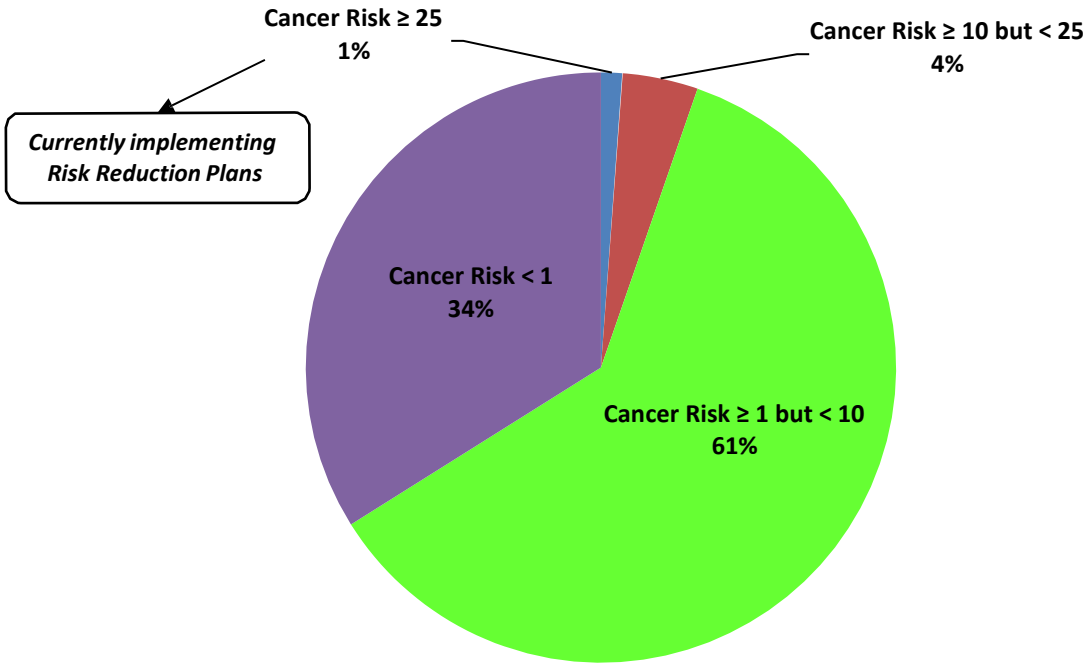

Figure 2 – Distribution of Cancer Risks (Chances in a Million) for AB 2588 Facilities with an Approved HRA

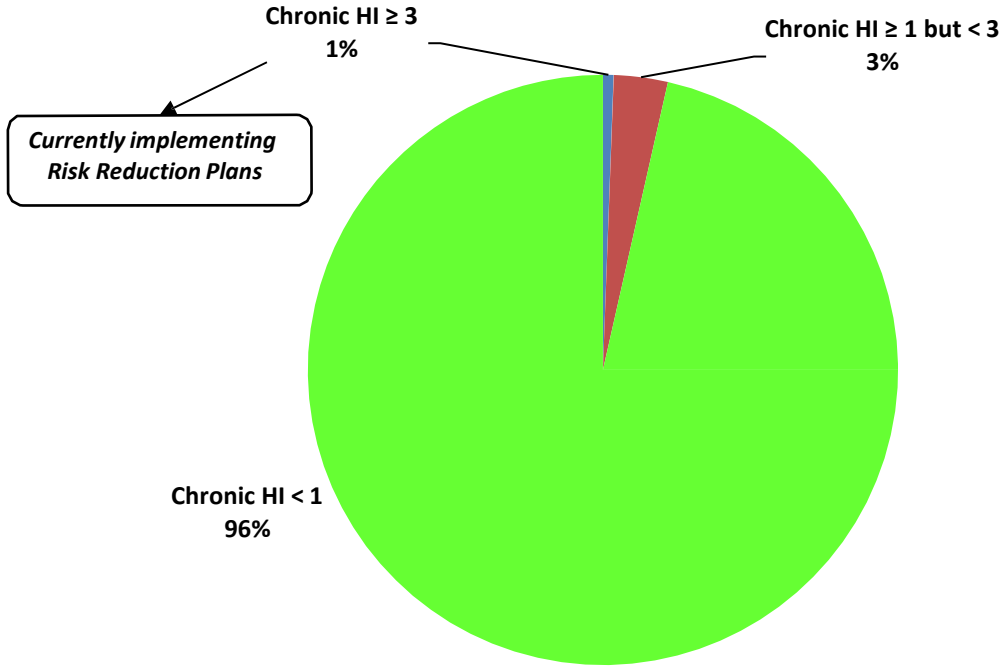

Figure 3 – Distribution of Chronic Hazard Indices for AB 2588 Facilities with an Approved HRA

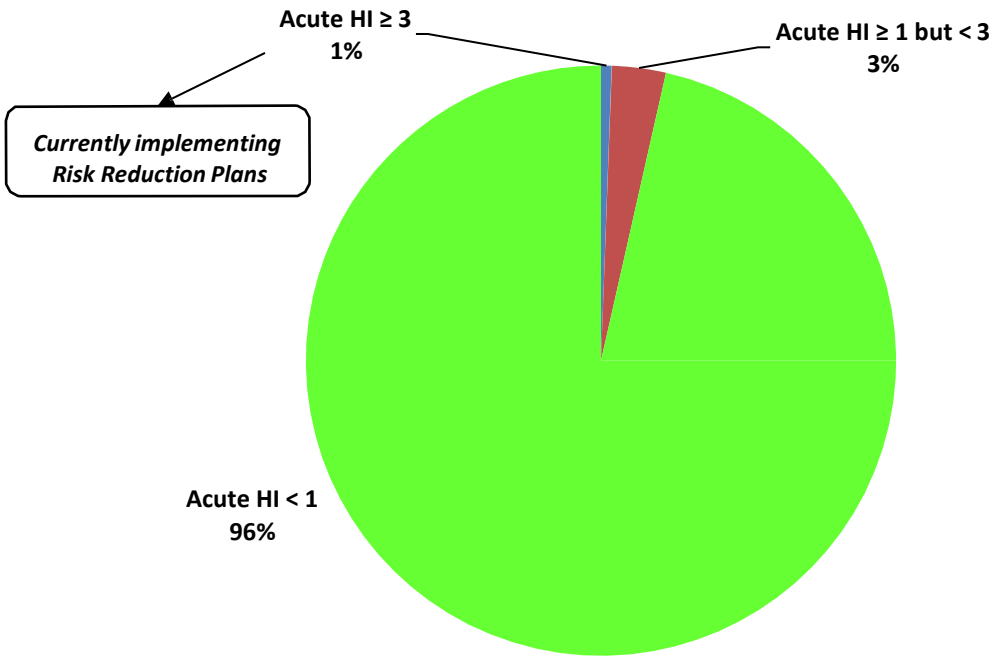

Figure 4 – Distribution of Acute Hazard Indices for AB 2588 Facilities with an Approved HRA

2. 2017 TOXICS ACTIVITIES

This section highlights SCAQMD staff activities in 2017 for various stages of the AB 2588 Program, implementation of Rules 1401 and 1402, air monitoring and source testing projects conducted in conjunction with the AB 2588 Program and Rule 1402, development of industry-wide source category HRAs, source-specific air toxic rule development efforts that address toxic air contaminants for specific industries or equipment categories, Rule 1401 permitting and HRA modeling review, and Rule 1420.2 modeling review.

2.1 Air Toxic Inventory Reports and Health Risk Assessments

Under the AB 2588 Program, facilities are required to report their toxic emissions to SCAQMD quadrennially (i.e., once every four years) through the web-based AER Program in a streamlined reporting process to obtain a preliminary inventory of toxic air contaminants. During the interim years, facilities continue to report toxic emissions through the AER Program for 23 toxic air contaminants. Under the quadrennial reporting process, facilities report emissions of 177 toxic air contaminants along with the distance to the nearest residential and worker receptor to calculate the cancer and non-cancer priority scores for each facility. Every year, criteria and toxic emissions data for the previous calendar year are posted to SCAQMD's FIND web tool.[2] In 2017, 154 facilities were required to report their quadrennial toxic emission inventory updates. Based on emissions inventory submittals, SCAQMD staff calculated priority scores for each facility taking into account potency, toxicity, and quantity of hazardous materials released from the facility; the proximity of the facility to potential receptors, including, but not limited to, hospitals, schools, daycare centers, residences, and worksites; and any other factors that SCAQMD staff determined would indicate the facility may pose a significant risk to receptors. SCAQMD's Prioritization Procedure also includes adjustment factors for exposure period, averaging times, and the treatment of multi-pathway pollutants.[3]

Upon calculation of a priority score for each facility, SCAQMD staff conducts a more detailed evaluation and audit of those facilities with a priority score greater than 10 to confirm use of the correct emission factors, control efficiencies, source test methods, and relative proportions of toxic air contaminants. In addition, staff conducts further analyses to confirm the distance to sensitive receptors and workers, and reviews emissions trends and facility changes such as new or modified permitted equipment or pollution controls. In cases where the facility has a prior HRA, staff compares the priority score results with the most recent HRA or RRP, if applicable. The additional information obtained through priority score auditing will often negate the need to require an ATIR and HRA. If, however, the priority score remains greater than 10, the facility is asked to prepare a detailed ATIR or, if eligible, a VRRP.

Facilities that prepare an ATIR or a VRRP must submit a detailed inventory of approximately 450 toxic air contaminants, as well as provide stack parameters and locations using the latest CARB Hotspots Analysis and Reporting Program (HARP).[4] The most recent version of HARP

[2] http://www.aqmd.gov/home/tools/public/find
[3] http://www.aqmd.gov/home/regulations/compliance/toxic-hot-spots-ab-2588/prioritization
[4] http://www.arb.ca.gov/toxics/harp/harp.htm

incorporates the methodologies from the 2015 OEHHA HRA Guidelines[5] and incorporates U.S. EPA's recommended air quality dispersion model called AERMOD[6] to estimate the concentration of pollutants. Meteorological data for use in HARP and AERMOD can be downloaded from SCAQMD's website.[7]

2.2 Air Monitoring and Source Testing Activities to Support the AB 2588 Program

In addition to collecting and reviewing quadrennial emission inventories based on emission calculations, SCAQMD staff regularly engages in air toxics monitoring and air toxics source testing at and near many facilities. In 2017, as part of the Community Air Toxics Initiative, SCAQMD staff conducted investigations in the cities of Paramount and Compton. The investigations focused on the monitored levels of hexavalent chromium in the area, a known carcinogen that even at low concentrations can cause lung and nose cancers in people after long-term exposure.

2.2.1 Paramount

In 2013, SCAQMD received a series of metallic odor complaints from local community members in the City of Paramount and began investigating local sources of emissions, including initiating a local air sampling study. Metal air toxics were the focus of the monitoring, consistent with the community complaints and with the emissions from metal processing facilities in the area. Monitoring results indicated that there were two metals of concern: nickel and hexavalent chromium.

In 2016, as part of the same ongoing investigation, SCAQMD staff deployed several ambient monitors in mostly industrial areas of the City of Paramount in order to identify the local sources of the hexavalent chromium emissions, and the industrial processes that were generating these emissions. This information was critical in developing solutions to reducing these emissions and their impact on the community. Monitoring of metal contaminants in the industrial areas of the City of Paramount found higher levels of nickel, total chromium, and hexavalent chromium in the neighborhoods very close to the industrial areas, but lower levels in the neighborhoods just a few blocks downwind.

SCAQMD staff continued to conduct inspections, surveillance, and complaint investigations in 2017. Although many of the issues found from inspections were not related to hexavalent chromium, over three dozen Notices of Violation were issued to eight facilities and 94 Notices to Comply were issued to 60 facilities. This resulted in changes to operations and new facilities requiring SCAQMD permits. Additionally, in order to help identify the types of operations and specific facilities that contributed the most to the high levels of hexavalent chromium in the air, SCAQMD staff collected and analyzed 148 samples of dust and debris at 18 facilities and tested emissions from 17 pieces of equipment at six facilities. Orders for Abatement were issued to four facilities: Aerocraft (December 2016), Anaplex (January 2017), Carlton Forge Works (July 2017), and Lubeco (August 2017). Carlton Forge Works in particular was issued an Order for Abatement to reduce odors. Air quality inspectors have been in the area on a regular basis to respond to

[5] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk

[6] http://www.epa.gov/ttn/scram/dispersion_prefrec.htm#aermod

[7] http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/data-for-aermod

complaints and perform odor surveillance. As a result, the number of odor complaints has fallen and Carlton Forge Works has continued to make changes to their operations to reduce odors. In addition, Aerocraft Heat Treating, Anaplex Corporation, and Lubeco were designated as Potentially High Risk Level Facilities under Rule 1402 due to observed high monitored levels of hexavalent chromium near them.

2.2.2 Compton

In July 2017, SCAQMD began special air monitoring in the city of Compton to measure levels of hexavalent chromium near several metal-processing facilities in the community, with an emphasis on chromium plating and anodizing facilities. Similar to Paramount, Compton has several potential chrome-emitting facilities in close proximity to each other and to sensitive receptors (e.g., hospitals, schools, homes, and senior centers). The purpose of the air monitoring effort was to determine whether these facilities pose a significant health risk to the community.

During 2017, 51 inspections of facilities in Compton were conducted. Of these 51 inspections, 16 Notices of Violation were issued, 52 Notices to Comply were issued, and 56 complaints were investigated. Samples were collected every three days and analyzed at SCAQMD's laboratory with the results available on SCAQMD's website.[8] Although SCAQMD's initial efforts have been focused on metal-processing facilities, there are other potential sources of hexavalent chromium that are being considered, such as cement from cement processing facilities and road construction projects. Updates will continue to be posted to the SCAQMD website.[9]

2.3 Summary of SCAQMD Staff Activities for AB 2588 Facilities in 2017

In 2017, staff addressed facilities in various stages of the AB 2588 process and initiated audit activities on facilities with priority scores greater than 10. Key activities conducted include review of 14 Air Toxics Inventory Reports, three Health Risk Assessments, five Risk Reduction Plans, and 10 Voluntary Risk Reduction Plans. Many of these key activities were for facilities that are in Group I, which are facilities that tend to have more sources and are more complex such as refineries and other industrial facilities. In 2017, facilities that met the eligibility criteria were notified of the option for either submitting a traditional Air Toxics Inventory Report and Health Risk Assessment or a Voluntary Risk Reduction Plans. Of the 13 facilities that were offered the option to prepare either an Air Toxics Inventory Report or Voluntary Risk Reduction Program, six facilities selected the Voluntary Risk Reduction Plan option, four facilities selected to prepare an Air Toxics Inventory Report through the traditional AB 2588 process, and three facilities submitted emissions inventory corrections which resulted in revised priority scores of less than 10. One facility was notified as a Potentially High Risk Level facility. Overall, a total of 76 documents were reviewed in 2017 with some facilities having multiple documents submitted for SCAQMD staff review. Table 1 presents a summary of key activities for facilities participating in the traditional AB 2588 Program and Table 2 presents a summary of key activities for facilities participating in the Rule 1402 Voluntary Risk Reduction Program.

[8] http://www.aqmd.gov/home/news-events/community-investigations/air-monitoring-activities/reports-data-assessments

[9] http://www.aqmd.gov/home/news-events/community-investigations/air-monitoring-activities

Table 1 – Actions Taken in 2017 for Facilities in the Traditional AB 2588 Program

Facility Name	ID #	ATIR			HRA			RRP			Status
		R	C	A	R	C	A	R	C	A	
Aerocraft [a]	23752	x	x		x	x		x	x		
All American Asphalt	132954			x			x				
Anadite [b]	8015										Revised Priority Score less than 10
Anaplex [a]	16951	x	x		x	x		x	x		
Boral Roofing	1073	x	x								
Bowman Plating Company	18989									x	
Equilon Enter. LLC, Shell Oil Prod. US [b]	800372										ATIR submittal due in 2018
Fontana Paper Mills	11716	x									
Gerdau/TAMCO	18931										Implementing RRP
Glendale City Water and Power [b]	800327	x									
Griswold Industries	800318	x		x							ATIR and Preliminary HRA shows health risks below Notification Levels
GS II, Inc. [b]	183567	x	x								Initially elected VRRP, but opted out later
Hixson Metal Finishing	11818									x	
Kaiser Aluminum	16338			x							
LA City, Bureau of Street Maintenance	116480										Revised Priority Score less than 10
Lubeco [a]	41229										ATIR, HRA, and RRP submittals due in 2018
Matrix Oil	182970										ATIR submittal due in 2018
MM West Covina [b]	113873	x	x								
Phillips 66 Wilmington Refinery [b]	171107	x	x								
Quemetco	8547							x		x	
So Cal Gas Co./Playa Del Rey Storage Facility	8582	x									
SoCal Holding, LLC	169754										ATIR submittal due in 2018
Triumph Processing	800267	x	x								
UC Irvine [b]	800288	x	x								Revised Priority Score less than 10
Universal City Studios [b]	800202										Revised Priority Score less than 10

Notes:

For ATIRs, HRAs, and RRPs: R=Report Received; C=Comment letter sent to facility; A=Report Approved.

[a] *Classified as Potentially High Risk Level Facility and currently under an Order for Abatement.*

[b] *Indicates facility notified to prepare either an ATIR or a VRRP. Facilities listed in this table elected to prepare an ATIR.*

Table 2 – Actions Taken in 2017 for Facilities in the Voluntary Risk Reduction Program

Facility Name	ID #	VRRP			Status
		R	C	A	
Chevron Products Co. [b]	800030	x			
GS II, Inc. [b]	183567	x			Initially elected VRRP, but opted out later
Hyperion Water Reclamation Plant, City of Los Angeles Bureau of Sanitation [b]	800214	x			
Orange County Sanitation District, Fountain Valley [b]	17301	x			
Orange County Sanitation District, Huntington Beach [b]	29110	x			
Phillips 66 Carson Refinery [b]	171109	x	x		
Tesoro Calciner [b]	174591	x			
Tesoro Los Angeles Refinery [b]	800436	x			
	174655				
	174694				
	174703				
Tesoro Sulfur Recovery Plant [b]	151798	x			
Torrance Refining [b]	181667	x	x		
Ultramar (Valero) Refinery [b]	800026	x			

Notes:
For VRRPs: R=Report Received; C=Comment letter sent to facility; A=Report Approved.
[a] *Classified as Potentially High Risk Level Facility and currently under an Order for Abatement.*
[b] *Indicates facility notified to prepare either an ATIR or a VRRP. Facilities listed in this table elected to prepare a VRRP.*

A description of these activities for each facility in Tables 1 and 2 is listed below.

2.3.1 Aerocraft Heat Treating Company (ID 23752) – Paramount[10]

Aerocraft Heat Treating Company (Aerocraft) operates a facility in the City of Paramount that processes forgings, castings, bar, plate and rough-machined parts. The facility uses various heat treating furnaces, quench tanks, and metal grinding equipment, as well as plasma cutting operations. Based on ambient monitoring conducted near Aerocraft which showed elevated levels of hexavalent chromium, Aerocraft was officially designated as a Potentially High Risk Level Facility on December 14, 2016. As part of this designation, Aerocraft was required to submit an Early Action Risk Reduction Plan by March 14, 2017, an ATIR by May 16, 2017, a HRA and a RRP by June 13, 2017. (Additional details regarding the ambient monitoring in Paramount and near Aerocraft and events that led up to the designation of Aerocraft as a Potentially High Risk Facility are discussed in the 2016 AB2588 Annual Report and on the SCAQMD's website[10]).

The Early Action Risk Reduction Plan was received on March 13, 2017 and after SCAQMD's staff review, a comment letter was sent on April 26, 2017 requesting revisions and resubmittal. Subsequently, on May 4, 2017, a revised Early Action Risk Reduction Plan was received.

[10] Information regarding Aerocraft and compliance-related activities in Paramount can be found at the following link:
http://www.aqmd.gov/home/news-events/community-investigations/air-monitoring-activities

On May 16, 2017, Aerocraft submitted an ATIR, and the HRA and RRP were submitted on June 13, 2017, in accordance with the required deadlines. Conditional approval of the revised Early Action Risk Reduction Plan was granted on May 31, 2017. Staff are currently reviewing all submitted documents.

2.3.2 All American Asphalt (ID 132954) – San Fernando

All American Asphalt operates a recycled asphalt product processing plant in the City of San Fernando. The company is contracted by the Department of Public Works to recycle and manufacture asphalt for repaving of city streets and roads. The operations involve asphalt batching and blending, an asphalt storage tank, storage silos for crumb rubber, baghouses, and an electrostatic precipitator to control particulate emissions.

All American Asphalt was required to prepare and submit an ATIR on September 21, 2011, based on their 2010 quadrennial emissions inventory. The draft ATIR was submitted on March 19, 2012. A source test was requested by SCAQMD staff for the hot mix dryer baghouse, which was conducted from November 12 through November 14, 2013, submitted on December 19, 2013, and approved on March 18, 2014. A final draft of the ATIR was submitted to SCAQMD on December 17, 2013 and a HRA was requested by the SCAQMD on March 6, 2014. A draft HRA was submitted on July 9, 2014. Health risks reported in the draft HRA were mainly generated from arsenic, naphthalene and hexavalent chromium emissions. In the months following the submittal, a site visit was conducted on January 21, 2015 to verify operations reported in the HRA. OEHHA also approved new HRA Guidelines that placed greater emphasis on infant's and children's higher susceptibility to carcinogenic compounds. The HARP software used to estimate risks was updated on March 6, 2015 by the California Air Resources Board. Because these changes happened after the submittal, the health risks results in the HRA were recalculated. Health risks estimated in the draft HRA were less than the AB 2588 and Rule 1402 notification levels. This draft HRA was finalized and approved on February 1, 2017.

2.3.3 Anadite Inc. (ID 8015) – South Gate

Anadite is a metal finishing facility located in the City of South Gate with operations such as cleaning and etching aluminum, titanium, stainless steels, and ferrous alloys, primer and paint application, liquid honing, and sand blasting services. The facility primarily serves the aerospace industry.

On June 30, 2017, SCAQMD staff sent a letter requesting Anadite to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual emissions with hexavalent chromium emissions from a surface preparation tank containing chromic acid and a passivation tank containing nitric acid as the main air toxic contributing to the high priority score.

After a careful review of the facility's 2015 emissions reported to SCAQMD, the facility provided information correcting their reported emissions on July 31, and October 31, 2017. After SCAQMD's staff review and approval of the corrections, the priority score was recalculated and found to be below 10. Subsequently, on December 15, 2017, SCAQMD staff sent a letter informing Anadite of the revised priority score and that no further action was required in response to the original notice.

2.3.4 Anaplex Corporation (ID 16951) - Paramount

Anaplex Corporation (Anaplex) operates a metal processing and finishing company in the City of Paramount. The facility processes parts for commercial and defense aerospace applications. The processes include anodizing and plating process lines which use hexavalent chromium, nickel, and cadmium. Additional details regarding the ambient monitoring in Paramount and near Anaplex and events that led up to the designation of Anaplex as a Potentially High Risk Facility are discussed in the 2016 AB2588 Annual Report and on the SCAQMD's website.[11]

Based on ambient monitoring in December 14, 2016, SCAQMD staff designated Anaplex as a Potentially High Risk Level Facility specifically based on high levels of hexavalent chromium found at monitors adjacent to Anaplex. As part of this designation, Anaplex was required to submit an Early Action Risk Reduction Plan by March 14, 2017, an ATIR by May 16, 2017, a HRA and a RRP by June 13, 2017. Following litigation in Superior Court, the Hearing Board granted a Stipulated Order for Abatement on January 18, 2017.

Anaplex submitted an Early Action Reduction Plan on March 13, 2017. SCAQMD staff provided comments on April 26, 2017 and requested revisions and resubmittal of the Early Action Risk Reduction Plan. Anaplex submitted a revised Early Action Risk Reduction Plan on May 11, 2017 which was conditionally approved on May 31, 2017.

On May 15, 2017, Anaplex submitted an ATIR and a HRA and RRP on June 13, 2017. SCAQMD staff provided written comments regarding all three documents on December 8, 2017, and requested revisions and resubmittal of each document. Staff are currently reviewing all submitted documents.

2.3.5 Boral Roofing, LLC (ID 1073) – Corona

Boral Roofing, LLC (Boral Roofing) is a clay and concrete tile manufacturing plant located in the City of Corona. Boral Roofing has two production lines for manufacturing clay roof tiles. Clay is delivered by trucks and then premixed by a skip loader. The clay is then grounded into a fine powder in a mill, screened, and transported to storage silos. Clay is transferred by belt conveyor to their manufacturing process where it is mixed with water and additives in pug mills. The wet clay mixture is extruded to tile form, then dried and fired in various natural gas kilns.

On March 20, 2017, SCAQMD staff sent a letter requesting Boral Roofing to prepare an ATIR due to the facility having a priority score greater than 10 based on its 2015 annual emissions with hexavalent chromium and arsenic as the main air toxics contributing to the high priority score.

The ATIR was submitted on August 25, 2017. Following comments from SCAQMD staff regarding technical discrepancies, Boral Roofing submitted the revised ATIR on November 16, 2017 which included corrections to calculations for hexavalent chromium that resulted in lower emissions. Staff are currently reviewing all submitted documents.

[11] http://www.aqmd.gov/home/news-events/community-investigations/air-monitoring-activities

2.3.6 Bowman Plating Company, Inc. (ID 18989) – Unincorporated LA County

Bowman Plating Company (Bowman), located near the City of Compton, has been in operation since 1945 and provides metal finishing and non-destructive testing, and processes materials including aluminum, titanium, composites, steel, and stainless steel for aerospace, defense, and related industries. Bowman's previously approved HRA from 2007 showed a maximum cancer risk of 14.2 in a million, mainly due to hexavalent chromium emissions from paint spraying operations. Subsequent annual emission reports submitted by Bowman for calendar years 2011 through 2013 showed increased use of hexavalent chromium-containing spray paints and lower control efficiencies, and consequently the 2007 HRA (using 2006 emissions inventory year) was no longer representative of the facility's current health risks. As a result, staff required Bowman to submit an updated HRA using the 2013 emission inventory.

Bowman submitted an HRA using their 2013 emission inventory on October 24, 2014. This HRA was then updated by SCAQMD staff to incorporate the 2015 OEHHA HRA Guidelines resulting in a maximum residential cancer risk of 110 in a million, and 17 in a million for the maximum exposed worker receptor, both primarily from hexavalent chromium emissions. SCAQMD staff approved the HRA on December 11, 2015, and since the cancer risks exceeded the Action Risk Level specified in Rule 1402, Bowman was required to conduct public notification and to submit a RRP. Notices of the public notification meeting were sent out to 118 people in the area where potential health risks were above the health risk levels established in Rule 1402. SCAQMD staff held a public notification meeting at the Corps Community Center to present the results of the HRA on February 9, 2016.

On June 8, 2016, Bowman submitted a RRP based on their approved HRA. SCAQMD staff sent a comment letter on September 15, 2016 and a revised RRP was submitted by Bowman on October 26, 2016. SCAQMD staff reviewed the proposed risk reduction measures, emission calculations, and modeling analysis which projected a potential maximum residential cancer health risk of 5 in one million, once the revised RRP was fully implemented. However, the modeling analysis submitted with the revised RRP did not properly account for the maximum potential hexavalent chromium emissions from the three spray booths based on their permitted emission limits. Adding these emissions increased the total risk from the facility to approximately 17.02 in one million, which is below the Action Risk Level. The revised RRP was conditionally approved on February 10, 2017, noting that sufficient information was not available on fugitive dust emissions and if information regarding fugitive emissions become known to SCAQMD in the future, that would substantially impact health risks to exposed persons, implementation, or effectiveness of the plan, SCAQMD may require the RRP to be updated and resubmitted pursuant to Rule 1402(k)(1). The RRP was fully implemented on March 30, 2017

2.3.7 Chevron Products Co., El Segundo Refinery (ID 800030) – El Segundo

Chevron El Segundo Refinery (Chevron ES) is a 1,000 acre petroleum oil refinery in the City of El Segundo with a 290,000 barrels of crude oil per day processing capacity. Chevron ES has approximately 20% of the gasoline market share in Southern California and is one of the largest refineries on the West Coast. The main products of the refinery are transportation fuels, such as gasoline, jet fuel, and diesel fuel.

On October 14, 2016, SCAQMD staff sent a letter requesting Chevron ES to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual

emissions with furans, polycyclic aromatic hydrocarbons, arsenic, cadmium, and related compounds as the main air toxics contributing to the high priority score. Chevron elected to participate in the Voluntary Risk Reduction Program and submitted a VRRP on March 27, 2017 which is currently under review.

2.3.8 Equilon Enterprises LLC dba Shell Oil Products US (ID 800372) – Carson

Equilon Enterprises LLC (Equilon) operates a petrochemical product distribution terminal in the City of Carson which is comprised of loading racks, storage tanks, and product pipeline. The products are transported by pipeline, trucks, or rail.

On October 10, 2017, SCAQMD staff sent a letter requesting Equilon to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual emissions with benzene, ethyl benzene, and napthalene emissions as the main air toxics contributing to the high priority score. Equilon elected to prepare an ATIR which is due on March 9, 2018. Staff are currently reviewing all submitted documents.

2.3.9 Fontana Paper Mills Inc. (ID 11716) – Fontana

Fontana Paper Mills Inc. (Fontana Paper Mills) is a manufacturing plant for asphalt roofing material, including shingles and saturated and coated roofing paper underlayments. The facility recycles paper products and manufactures roll stock for shingle backing or underlayments. The emissions from the asphalt mixer, heater and rollcoater are controlled by thermal oxidizer. Other emissions from the saturator process are controlled by a scrubber, followed by a high efficiency air filter. Emissions of polycyclic aromatic hydrocarbons are the main toxic pollutant of concern and can occur when asphalt is heated.

SCAQMD staff noted discrepancies in reported emissions from three asphalt roofing companies and determined that additional investigation was warranted. As a result, on October 14, 2016, SCAQMD staff requested an emissions inventory update from Fontana Paper Mills in order to get a better understanding of actual emissions and corresponding health risks. Because Fontana Paper Mills did not have a previously approved HRA, an ATIR was requested based on its 2014 annual emissions. The ATIR was submitted on March 14, 2017, and the facility proposed source testing of toxic air contaminants at the high efficiency air filter vents. However, since Fontana Paper Mills is currently undergoing modifications in order to be able to manufacture products using polymer asphalt, source testing was postponed until construction for the modified manufacturing line has been completed. Construction should be completed by the end of June 2018.

2.3.10 Gerdau S.A. / TAMCO (ID 18931) – Rancho Cucamonga[12]

Gerdau North America (Gerdau) located in the City of Rancho Cucamonga acquired the TAMCO steel mini mill in October 2010. The facility produces steel reinforcing bars that are commonly used in construction. Ferrous steel scrap is recycled and delivered to the facility by trucks and rail, and then melted in an electric arc furnace to produce steel billets. The billets are reheated in a reheat furnace to form concrete reinforcing bar (rebar). The primary pollutants for this facility are hexavalent chromium, nickel, manganese, mercury, and arsenic.

[12] http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588/gerdau

Gerdau was directed to submit an ATIR and HRA based on significantly high levels of cadmium reported in its 2011 annual emissions reporting. The HRA was approved on October 8, 2015 and based on the 2015 OEHAA HRA Guidelines. Several health risks in the approved HRA exceeded levels specified in Rule 1402 and Gerdau was therefore required to notify the public regarding the results of its HRA, and also submit a RRP. Notices of the public notification meeting were sent out to 1,523 people in the area where the health risks were above the levels established in Rule 1402. SCAQMD staff held a public notification meeting was held on November 30, 2015 to explain the impact of Gerdau's emissions on public health and to discuss next steps.

Gerdau submitted its first RRP on April 5, 2016. After review of the RRP and several meetings with facility representatives, SCAQMD staff provided comments on the RRP and on July 1, 2016, Gerdau submitted a revised RRP. However, the revised RRP did not account for hexavalent chromium emissions from ladle heaters, billet reheat furnace, and spray chamber stack. SCAQMD staff added these emissions which resulted in a projected potential maximum residential cancer risk of 8.7 in a million. The cancer burden and acute and chronic HI remain below 1 so after making these revisions, SCAQMD staff conditionally approved Gerdau's RRP on July 5, 2016. The RRP consisted of ten risk reduction measures to be completed by January 5, 2019.

On July 5, 2017, Gerdau submitted a progress report to update SCAQMD on the status of its risk reduction measures. Seven of the ten measures were implemented and the progress of the remaining three measures was reviewed. SCAQMD staff continues to monitor the progress of the RRP and anticipates all risk reduction measures to be implemented within specified timeframes.

2.3.11 Glendale City, Glendale Water & Power (ID 800327) – Glendale

Glendale Water & Power (GWP) is a municipal power plant owned and operated by the City of Glendale. GWP consists of three utility boilers and eight stationary combustion turbines with a combined 238 MW generation capacity. These units combust natural gas which is supplemented by methane gas from a Class III landfill.

On March 1, 2017, SCAQMD staff sent a letter requesting GWP to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual emissions with dioxins and furans, hexavalent chromium, and arsenic as the main air toxics contributing to the high priority score.

GWP elected to prepare an ATIR and submitted it on July 28, 2017. Staff are currently reviewing all submitted documents.

2.3.12 Griswold Industries (ID 800318) – Costa Mesa

Griswold Industries, Inc., (Griswold) also known as Cla-Val Co. is a 20-acre production/foundry complex located in the City of Costa Mesa. Griswold manufactures automatic control valves and electronic products for waterworks, fire protection, aviation ground fueling, and marine and industrial customers. Potential air toxic emission sources include natural gas combustion; furnaces; abrasive blasting; sand handling, mixing, and reclamation; metal grinding; metal cutting; and metal coating. Potential health risks from Griswold are primarily from hexavalent chromium emissions related to foundry operations. On February 10, 2016, SCAQMD staff required Griswold to prepare and submit an ATIR based on its 2014 annual emissions. SCAQMD staff conducted a site visit to verify the emission sources and to identify potential sources of fugitive emissions. Griswold

submitted an ATIR on December 23, 2016. Revisions to the ATIR followed on August 30, 2017 and on September 21, 2017 to correct certain parameters. After reviewing the ATIR and the preliminary HRA information, SCAQMD staff concluded that the health risks were below the Notification Risk Level in Rule 1402. On October 27, 2017, Griswold was notified that no further action was required.

2.3.13 GS II, Inc. (ID 183567) – Wilmington

GS II, Inc. (GS II), located in the City of Wilmington, manufactures asphalt roof shingles. The manufacturing process at the facility includes asphalt storage tanks, asphalt heaters, roll coaters and saturators and are primary emission sources.

As described previously, due to discrepancies in reported emissions from three asphalt roofing companies, on October 28, 2016, SCAQMD staff sent a letter requesting GS II to prepare either an ATIR or a VRRP in order to get a better understanding of actual emissions and corresponding health risk. On November 14, 2016, GS II staff informed SCAQMD staff of their intention to participate in the Voluntary Risk Reduction Program. However, GS II informed SCAQMD staff on November 1, 2017 that the company wanted to opt out of the Voluntary Risk Reduction Program. As a result, on November 1, 2017 SCAQMD staff terminated GS II's participation in the Voluntary Risk Reduction Program and notified GS II that an ATIR and HRA was due within 90 days of the notification letter. Staff are currently reviewing all submitted documents.

2.3.14 Hixson Metal Finishing (ID 11818) - Newport Beach [13]

Hixson Metal Finishing (Hixson) located in the City of Newport Beach, is a metal finishing facility that conducts anodizing, testing, plating, coating, and painting operations on various parts for use in the aerospace and defense industries. Some of the potential onsite sources of emissions include the chrome anodizing line, nickel and cadmium plating, curing and drying ovens, paint spray booths, abrasive blasting equipment, wastewater treatment system and miscellaneous natural gas combustion sources. The major source of concern with Hixson's operation is fugitive dust containing hexavalent chromium. On April 3, 2014, SCAQMD staff required Hixson to prepare and submit a HRA and a RRP, in conjunction with a Stipulated Order for Abatement approved by SCAQMD's Hearing Board that limited Hixson's activities, and required shutdown of certain operations using hexavalent chromium if monitored ambient levels exceeded specified hexavalent chromium levels.

Hixson submitted their HRA to SCAQMD on November 13, 2014. Upon detailed review and use of the 2015 OEHHA HRA Guidelines, SCAQMD staff finalized the submitted HRA on May 8, 2015. The approved HRA found a maximum residential cancer risk of 1,502 per million mainly from hexavalent chromium emissions. The estimated cancer risk was based on emissions occurring before the facility instituted various control measures and today's level of risk is substantially lower. Since the HRA results were above the Significant Risk Level in Rule 1402, Hixson was required to notify the public about the health risk in addition to conducting annual public notification meetings until the Rule 1402 Action Risk Level was achieved pursuant to Rule 1402(p). Notice of the public notification meeting was sent out to over 7,300 people in the area of

[13] http://www.aqmd.gov/home/regulations/compliance/toxic-hot-spots-ab-2588/hixson-metal-finishing

impact. SCAQMD staff held a public notification meeting at the Hoag Conference Center on June 18, 2015.

Hixson submitted its first RRP on March 2, 2015. On May 8, 2015, SCAQMD staff rejected Hixson's first RRP and required resubmittal. Hixson subsequently submitted a second RRP on June 5, 2015. On June 26, 2015, SCAQMD staff rejected Hixson's second RRP due to its failure to demonstrate that the proposed controls reduce risks below Rule 1402 thresholds. Hixson resubmitted a revised RRP on July 1, 2015, and SCAQMD staff conditionally approved it on July 24, 2015. The associated permits to construct implementing the RRP were approved on December 11, 2015 and a second public notification meeting was held on February 11, 2016 at the Hoag Conference Center to inform interested parties regarding the key activities surrounding the RRP. In the 2016 Annual Report for the AB 2588 Program, staff incorrectly stated that the RRP was fully implemented as of December 31, 2016. The Order for Abatement expired on December 31, 2016, as Hixson had constructed all the measures contained in the RRP. However, one of the risk reduction measures requires all emissions from Building 2 to be captured and routed through a dry scrubber followed by ULPA filters. The existing chromic acid anodizing tank (Tank 70) is located in Building 2 and currently has a control system that includes an ULPA filtration system. As part of the modifications to Building 2, existing Tank 70 is being replaced with a new chromic acid anodizing tank (also designated Tank 70) vented to the new Building 2 control system, which also includes ULPA filtration. However, there was an issue with the temperature controls for the new Tank 70, which has delayed its operation. Since the existing Tank 70 is already being controlled by an ULPA filtration system, there are no additional emissions expected from the continued operation of existing Tank 70 compared to new Tank 70, as proposed in the RRP. It is anticipated that new Tank 70 will be operational in 2018. Ambient monitoring for hexavalent chromium continues in the vicinity of Hixson.

2.3.15 Hyperion Water Reclamation Plant, City of Los Angeles Bureau of Sanitation (ID 800214) – Playa del Rey

The City of Los Angeles owns and operates the Hyperion Water Reclamation Plant (Hyperion) in the Playa del Rey community. Hyperion is a publically owned wastewater treatment plant with over 275 million gallon capacity with primary and full secondary treatment processes. As part of the treatment process, more than 885,000 pounds of solid and organic materials are removed daily and treated through anaerobic digestion.

On October 28, 2016, SCAQMD staff sent a letter requesting Hyperion to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual emissions with perchloroethylene and arsenic as the main air toxics contributing to the high priority score.

On November 23, 2016, Hyperion elected to participate in the Voluntary Risk Reduction Program and submitted a VRRP on January 24, 2017. Staff are currently reviewing all submitted documents.

2.3.16 Kaiser Aluminum Fabricated Products, LLC (ID 16338) – Los Angeles

Kaiser Aluminum Fabricated Products located in the City of Los Angeles, develops fabricated aluminum products for major suppliers and manufacturers in the aerospace, general automotive, engineering and custom industrial markets. They also manufacture aluminum extrusions, cast logs, billets, and semi-fabricated products. The facility was required to prepare and submit an ATIR

based on its 2010 annual emissions. SCAQMD staff conducted a site visit in October 2014 to verify the sources of emissions identified in the ATIR. After obtaining approval of the source test results, staff recalculated a new priority score below 10 and provided final approval of the ATIR on September 19, 2017.

2.3.17 LA City Bureau of Street Maintenance (ID 116480) – Los Angeles

The Los Angeles City Bureau of Street Maintenance (Bureau) operates an asphalt batch plant on Olympic Boulevard in Los Angeles. The asphalt is used to maintain 6,500 centerline miles of public roadways and 800 centerline miles of alleys within the city. The plant recycles asphalt concrete and consists of crushers, natural gas-fired rotary dryers and storage silos. Particulate emissions are controlled by baghouses and misters.

On May 31, 2017, SCAQMD staff sent a letter requesting its Bureau to prepare an ATIR due to the facility having a priority score greater than 10 based on its 2015 annual emissions with polycyclic aromatic hydrocarbons as the main air toxics contributing to the high priority score. Bureau staff subsequently provided information that the asphalt batch plant was undergoing major renovations and would not operate in any capacity for the majority of 2018 calendar year. The shutdown of the facility also occurred prior to the date SCAQMD staff notified the Bureau to prepare an ATIR. Based on the information, SCAQMD staff notified the Bureau on July 14, 2017 that no further action was needed at this time but that the emissions from the Bureau's facility would be evaluated at the next quadriennial reporting year, which will be after renovations are completed.

2.3.18 Lubeco, Inc. (ID 41229) – Long Beach

Lubeco, Inc. (Lubeco) is a metal finishing company operating in Long Beach near the southern border of the City of Paramount. Lubeco's primary operations involve painting, surface preparation, anodizing, sealing and coating of metals for the aerospace industry. Ancillary operations include abrasive blasting, wastewater treatment, and operation of a natural gas-fired boiler and ovens.

Lubeco utilizes baking and drying ovens, spray booths, tanks for chromic acid anodizing, aqueous solutions, and acid surface preparations. These processes can potentially generate hexavalent chromium emissions.

Beginning in October 2016, through expanded monitoring efforts in the City of Paramount, SCAQMD staff found high concentrations of hexavalent chromium in the vicinity of Lubeco. As a result, Lubeco was selected as a host facility for testing of hexavalent chromium emissions from a heated sodium dichromate seal tank due to elevated ambient monitoring readings in the nearby south Paramount area. On April 27, 2017, SCAQMD staff conducted source tests for hexavalent chromium emissions from a heated sodium dichromate seal tank at Lubeco with the main objective of determining an emission factor that can be used for calculating emissions from heated sodium dichromate seal tanks used in plating operations. The results of the source tests showed the heated sodium dichromate tank to be a source of hexavalent chromium. The second objective of this testing was to identify potential sources of hexavalent chromium emissions as measured by SCAQMD ambient air monitors in the nearby south Paramount area. SCAQMD subsequently filed a petition for Order for Abatement with the Hearing Board. Following the hearings on August 17 and August 23, 2017, the Hearing Board granted SCAQMD permission to install ambient monitors

and a meteorological station on the facility property and permission to conduct additional source tests.

Because of the ambient measurements, SCAQMD staff notified Lubeco on September 8, 2017 that the facility may be designated as a Potentially High Risk Level Facility. Lubeco representatives and SCAQMD staff met on September 22, 2017 to discuss the monitoring results that had led to the notification. On September 28, 2017, Lubeco was officially designated as a Potentially High Risk Level Facility. As part of this designation, Lubeco was required to expeditiously reduce risks and to submit an Early Action Reduction Plan by December 27, 2017, an ATIR by February 27, 2018, a HRA and a RRP by March 27, 2018. The Early Risk Reduction Plan was submitted on December 8, 2017. Staff are currently reviewing all submitted documents.

2.3.19 Matrix Oil Corporation (ID 182970) – La Habra Heights

Matrix Oil Corporation (Matrix) is a private oil and natural gas production company operating an oil production site in La Habra Heights. This site consists of 17 total active crude oil producing wells generating approximately 400 barrels per day of crude oil. This site also produces roughly 400,000 cubic feet of field gas daily. Matrix operates five microturbines to power the site.

On June 30, 2017, SCAQMD staff sent a letter requesting Matrix to prepare an ATIR due to the facility having a priority score greater than 10 based on its 2015 annual emissions with polycyclic aromatic hydrocarbons being the main air toxics contributing to the high priority score. Matrix submitted their ATIR on August 1, 2017. During the review process, SCAQMD staff noticed that an incorrect emission factor for microturbines was used by the facility resulting in lower emissions compared to what was reported. After emission revisions were submitted by the facility, SCAQMD staff recalculated a new priority score below 10. On October 10, 2017, SCAQMD staff sent a letter informing Matrix of the revised priority score and that no further action was required in response to the original notice.

2.3.20 MM West Covina LLC (ID 113873) – West Covina

MM West Covina is a cogeneration facility located on the BKK Landfill in the City of West Covina. Landfill gas from the inactive BKK Landfill, which received Class I and Class III waste, is combusted in the facility's steam generator. The steam powers a 7,100 kW capacity steam turbine to produce electricity.

On January 11, 2017, SCAQMD staff sent a letter requesting MM West Covina to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on 2014 annual emissions with dioxins and hexavalent chromium being the main air toxic contributors to the high priority score.

On February 15, 2017, MM West Covina elected to prepare an ATIR. The ATIR was submitted on June 13, 2017. SCAQMD staff provided comments on August 17, 2017 requiring revisions to the ATIR which was provided on August 29, 2017. SCAQMD staff approved the ATIR on March 27, 2018, and notified the facility to prepare and submit a HRA by June 26, 2018.

2.3.21 Orange County Sanitation District, Fountain Valley (Plant No. 1) (ID 17301) – Fountain Valley

The Orange County Sanitation District (OCSD) is a public agency that provides wastewater collection, treatment, and reclamation services in central and northwest Orange County. Plant No. 1, located in Fountain Valley, is one of the two wastewater treatment plants operated by OCSD. Plant No. 1 treats wastewater from residential, commercial and industrial sources using advanced primary and secondary treatment.

On April 28, 2017, SCAQMD staff sent a letter requesting OCSD Plant No. 1, to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on 2015 annual emissions with formaldehyde being the main air toxic contributor to the high priority score. Formaldehyde emissions were from three cogeneration engines combusting primarily digester and supplemental natural gas. Digester gas is produced at the facility through anaerobic digestion, which is part of the solids processing facilities.

OCSD elected to participate in the Voluntary Risk Reduction Program, and submitted the VRRP on September 25, 2017. The plan focused on installation of oxidation catalysts on the exhaust of the three engines, which serves to reduce formaldehyde emissions and emissions of nitrogen oxides. The oxidation catalyst system was previously planned and fully permitted on February 28, 2017. Staff are currently reviewing all submitted documents.

2.3.22 Orange County Sanitation District, Huntington Beach (Plant No. 2) (ID29110) – Huntington Beach

The Orange County Sanitation District (OCSD) is a public agency that provides wastewater collection, treatment, and reclamation services in central and northwest Orange County. Plant No. 2, located in Huntington Beach, is one of the two wastewater treatment plants operated by OCSD. Plant No. 2 treats wastewater from residential, commercial and industrial sources using advanced primary and secondary treatment.

On April 28, 2017, SCAQMD staff sent a letter requesting OCSD Plant No. 2 to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on 2015 annual emissions with formaldehyde being the main air toxic contributor to the high priority score. Formaldehyde emissions were from three cogeneration engines combusting primarily digester and supplemental natural gas. Digester gas is produced at the facility through anaerobic digestion, which is part of the solids processing facilities.

OCSD elected to participate in the Voluntary Risk Reduction Program, and submitted the VRRP on September 25, 2017. The plan focused on the installation of oxidation catalysts on the exhaust of the three engines, which serves to reduce formaldehyde emissions and emissions of nitrogen oxides. The oxidation catalyst system was previously planned and fully permitted on February 28, 2017. Staff are currently reviewing all submitted documents.

2.3.23 Phillips 66 Company, Los Angeles Refinery (ID 171109) - Carson

The Phillips 66 Company operates two linked facilities, five miles apart, in Carson and Wilmington. The Phillips 66 Carson Refinery (Carson Refinery) was built in 1923 and is situated on approximately 235 acres. The refinery processes mainly heavy, high-sulfur crude oil, which is received by pipeline and at a terminal in the Port of Long Beach. The Carson Refinery produces

intermediate product, which is then sent to the Phillips 66 Wilmington Refinery for further processing to produce petroleum fuels and fuel-grade petroleum coke. These facilities have fluid catalytic cracking, alkylation, hydrocracking, coking and naphtha reforming units.

On March 1, 2017, SCAQMD staff sent a letter requesting Carson Refinery to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on 2015 annual emissions with arsenic and sulfuric acid being the main contributors to the high priority score. These emissions were mainly from crude distillation, hydro-treating, and steam generation processes at the facility.

Carson Refinery elected to participate in the Voluntary Risk Reduction Program, and submitted the VRRP on August 1, 2017. Following review, SCAQMD staff noted several deficiencies. Revisions and clarifications were provided by Carson Refinery staff on September 17, November 7, and November 22, 2017 to address the deficiencies. Staff are currently reviewing all submitted documents.

2.3.24 Phillips 66 Company, Los Angeles Refinery – Wilmington Plant (ID 171107) – Wilmington

The Phillips 66 Company operates two linked facilities, five miles apart, in Carson and Wilmington. The Phillips 66 Wilmington Refinery (Wilmington Refinery) was built in 1919 and is situated on approximately 424 acres. As described previously, this facility receives and processes intermediate product from the Carson facility and produces petroleum fuels as well as fuel-grade petroleum coke. Air toxic emissions are generated from fluid catalytic cracking, steam generation, electricity generation, and sulfuric acid production processes.

On March 1, 2017, SCAQMD staff sent a letter requesting Wilmington Refinery to prepare either an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual emissions with hexavalent chromium and polycyclic aromatic hydrocarbons being the main air toxic contributors to the high priority score.

Wilmington Refinery elected to prepare an ATIR, and submitted the ATIR on August 1, 2017. Following review, SCAQMD staff found several deficiencies. Revisions were submitted by Wilmington Refinery staff on November 10, and December 15, 2017. Staff are currently reviewing all submitted documents.

2.3.25 Quemetco (ID 8547) – City of Industry [14]

Quemetco operates a battery recycling and lead recovery facility in the City of Industry. At this facility, used batteries are received, fragmented, and the lead-containing materials are recovered and purified. The primary pollutants for this facility are arsenic, lead, benzene, and 1,3-butadiene.

Multiple AB 2588 HRAs have been approved for Quemetco in the past, most recently in 2010. In October and November 2013, SCAQMD staff conducted source tests at Quemetco. The results of the 2013 source tests showed elevated arsenic, benzene, and 1,3-butadiene emissions compared to previous 2009, 2010, and 2012 source tests. As a result, on December 10, 2013, SCAQMD staff requested that Quemetco prepare and submit an HRA pursuant to Rule 1402. Quemetco submitted

[14] http://www.aqmd.gov/home/regulations/compliance/toxic-hot-spots-ab-2588/quemetco

an HRA on May 9, 2014. SCAQMD staff sent a comment letter on September 23, 2014 requiring Quemetco to revise their HRA in several areas including an assessment of potential lead impacts relative to the National Ambient Air Quality Standard, and to address minor comments from the Office of Environmental Health Hazard Assessment (OEHHA). Quemetco provided an updated HRA in January 2015. SCAQMD staff requested that Quemetco prepare a new HRA to include two scenarios: 1) a baseline scenario utilizing the November 2013 SCAQMD source test input into the dispersion model, and 2) dispersion modeling that reconciled any potential differences between onsite fenceline monitoring data that became available in 2014 and source tests also available from 2014. Quemetco provided an updated HRA in May 2015. On September 16, 2015, SCAQMD sent Quemetco a tentative approval of the staff-modified revised HRA. Quemetco commented that the monitoring data collected onsite required revision before incorporating into the HRA. SCAQMD staff evaluated Quemetco's monitoring data in late 2015 and early 2016. Onsite fenceline monitoring data was corrected for pre-existing arsenic on blank filters and the dispersion modeling source parameters were also adjusted.

Additionally, in 2014, SCAQMD staff initiated a technology demonstration pilot study for in-stack continuous emissions monitoring system (CEMS) and fenceline/perimeter ambient air monitoring for multi-metals. Contracts with Cooper Environmental Services, the only manufacturer of these types of continuous monitors, were initiated to implement the study. The pilot study was conducted at Quemetco and Gerdau in 2015. Preliminary findings from 2015 for ambient multi-metal monitor showed favorable results for lead and less quantitative results for other metals, but most results were useful for trend detection. Quemetco purchased the in-stack CEMS.

SCAQMD staff approved the HRA on May 17, 2016 with some revisions. The approved HRA showed that the residential cancer health risk was 16 in one million, the worker chronic HI was 1.28, and the cancer burden was 2.0. These values exceeded the Action Risk Level of Rule 1402 and public notification and a RRP were required. Notice of the public meeting was sent to approximately 8,000 residents and businesses within the public notification area. A public notification meeting was held on June 23, 2016 at La Puente High School.

Quemetco submitted an RRP on November 16, 2016. As part of the RRP, Quemetco proposed using in-stack multi-metals CEMS to ensure that Rule 1402 risk thresholds are not exceeded. Quemetco's RRP was conditionally approved on June 22, 2017. The conditions for approval were all related to operation of the CEMS.

In addition, Quemetco has requested a permit modification to allow a 25% increase in their daily throughput. SCAQMD staff is processing this permit request, and is also preparing an Environmental Impact Report (EIR) as required by the California Environmental Quality Act (CEQA). The EIR will evaluate the potential environmental impacts of this proposed permit modification and will include an analysis of the health risks associated with the throughput increase. There will be multiple opportunities for the public to provide input on the EIR. The Final EIR will include responses to all comments received and must be certified before the permit modification request can be considered for approval.

2.3.26 Southern California Gas Company, Playa del Rey Storage Facility (ID 8582) – Playa del Rey

Southern California Gas Company (SoCal Gas) is a public utilities company that owns and operates a natural gas storage facility in the Playa del Rey community in the City of Los Angeles. Natural gas is compressed and stored in underground reservoirs. There are transmission pipelines for distributing natural gas from the facility. Primary devices at the facility include three natural gas internal combustion engines driving air compressors.

On May 31, 2017, SCAQMD staff sent a letter requesting SoCal Gas to prepare an ATIR due to the facility having a priority score greater than 10 based on its 2015 annual emissions with formaldehyde, 1,3-butadiene and benzene being the main air toxic contributors to the high priority score. On October 31, 2017, the ATIR was submitted. Staff are currently reviewing all submitted documents.

2.3.27 California Resources Corporation / SoCal Holding, LLC (ID 169754) – Huntington Beach

SoCal Holding, LLC (SoCal Holding) is a subsidiary of California Resources Corporation, an oil and natural gas exploration and production company. SoCal Holding leases and operates oil production wells, mainly in Huntington Beach with some wells located offshore on a platform approximately 1.5 miles from shore. Recovered field gas is either sold to AES Huntington Beach, combusted in micro-turbines or flared. The liquid product is stored in tanks linked to truck loading or pipeline.

On October 11, 2017, SCAQMD sent a letter requesting SoCal Holding to prepare an ATIR due to the facility having a priority score greater than 10 based on 2015 annual emissions with polycyclic aromatic hydrocarbons and benzene being the main air toxic contributors to the high priority score. The source for polycyclic aromatic hydrocarbons emissions was a flare located on a leased property northwest of the intersection of Goldenwest Street and Pacific Coast Highway. Benzene emissions were reported as fugitive leaks throughout the facility. Staff are currently reviewing all submitted documents.

2.3.28 Tesoro Refining & Marketing Co., LLC, Calciner (ID 174591) – Wilmington

Tesoro Calciner produces calcined petroleum coke, or raw or "green" petroleum coke heated to high temperatures so that volatile hydrocarbon compounds and excess moisture are heated out of the coke. Equipment in Tesoro Calciner's operations include a rotary kiln, baghouses, conveyor belts, receiver and separator vessels, an afterburner, surge bins, boiler, bucket elevators, loading and unloading stations, shakers, and storage silos.

On April 28, 2017, SCAQMD staff sent a letter requesting Tesoro Calciner to either prepare an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2016 annual emissions with sulfuric acid, arsenic, manganese, and nickel as the main air toxic contributors to the high priority score. On May 25, 2017, Tesoro Calciner elected to participate in the Voluntary Risk Reduction Program, and subsequently submitted the VRRP on September 21, 2017.

After review of the VRRP, SCAQMD staff found several deficiencies and on January 31, 2018, a letter requesting revision and resubmittal of the VRRP was sent. SCAQMD staff is currently waiting for the necessary revisions to be submitted before continuing the review of the VRRP.

2.3.29 Tesoro Refining & Marketing Co., LLC, Los Angeles Refinery (ID 174655, 800436, 174694, 174703) – Carson and Wilmington

The Tesoro Los Angeles Refinery (Tesoro Refinery) is located along the city border between the cities of Carson and Wilmington in south Los Angeles County. The Tesoro Refinery was originally two adjacent but not contiguous refineries but has been undergoing consolidation through the Los Angeles Refinery Integration and Compliance (LARIC) Project.[15] The Tesoro Refinery will be comprised of approximately 930 acres with a processing capacity of approximately 380,000 barrels per day. In 2017, the Tesoro Corporation underwent a name change to Andeavor.

On December 22, 2016, SCAQMD staff sent a letter requesting Tesoro Refinery to either prepare an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual emissions with polycyclic aromatic hydrocarbons, hexavalent chromium, arsenic, naphthalene, benzene, and cadmium as the main air toxic contributors to the high priority score.

Tesoro Refinery elected to participate in the Voluntary Risk Reduction Program, and submitted their VRRP on May 23, 2017. After initial review, SCAQMD staff required Tesoro Refinery to make several revisions. Both SCAQMD staff and Tesoro representatives have met several times regarding the revisions and risk reduction measures proposed. SCAQMD staff is currently waiting for the necessary revisions to be submitted before continuing the review of the VRRP.

2.3.30 Tesoro Sulfur Recovery Plant (ID 151798) – Carson

Tesoro Sulfur Recovery Plant is located in Carson east of the Tesoro Los Angeles Refinery. The facility supports petroleum refinery operations by utilizing the Claus process to recover sulfur in the form of hydrogen sulfide from the byproduct gases of refining crude oil. The facility operates boilers, incinerators, condensers, absorbers, storage tanks, sumps, and sulfur pits.

On December 22, 2016, SCAQMD staff sent a letter requesting the Tesoro Sulfur Recovery Plant to either prepare an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual emissions with arsenic, polycyclic aromatic hydrocarbons, hexavalent chromium, and formaldehyde as the main air toxic contributors to the high priority score.

The Tesoro Sulfur Recovery Plant elected to participate in the Voluntary Risk Reduction Program, and submitted the VRRP on May 23, 2017. After review, on February 15, 2018, SCAQMD staff sent a letter requesting revisions and resubmittal of the VRRP. SCAQMD staff is currently waiting for the necessary revisions to be submitted before continuing review of the VRRP.

2.3.31 Torrance Refining Company LLC (ID 181667) – Torrance

Torrance Refining Company LLC (Torrance Refining) is a subsidiary of PBF Energy, an independent petroleum refiner and supplier of unbranded transportation fuels, heating oils, petrochemical feedstocks, lubricants, and other petroleum products. The Torrance Refinery sits on 750 acres in the City of Torrance and has a 155,000 barrels per day of crude oil processing capacity. The refinery produces various petroleum productions along with coke, and sulfur.

[15] www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2017/tesorolaric/tesoro_feir.pdf

On January 11, 2017, SCAQMD staff sent a letter requesting Torrance Refining to either prepare an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2015 annual emissions polycyclic aromatic hydrocarbons,, arsenic, benzene, and cadmium being the main air toxic contributors to the high priority score.

Torrance Refining elected to participate in the Voluntary Risk Reduction Program and was to submit the VRRP on August 24, 2017 for the 2015 inventory year. However, due to the fact that an explosion had occurred at the facility's fluid catalytic cracking unit during 2015, the facility had limited operations during that year, and SCAQMD staff decided that 2016 would be more representative of facility's routine operations and, as a result, required Torrance Refining to use 2016 as the inventory year for their VRRP.

The facility submitted the VRRP on August 24, 2017. After review, on October 19, 2017, SCAQMD staff sent a comment letter requesting revisions and resubmittal of the VRRP. The revised VRRP was received on November 2, 2017. However, information regarding risk reduction measures and the implementation schedules required more revisions. Subsequently, on November 28, 2017, Torrance Refining Company submitted additional revised VRRP files, which is currently under review.

2.3.32 Triumph Processing, Inc. (ID 800267) – Lynwood

Triumph Processing, Inc. (Triumph) owns and operates a metal treating and finishing facility in the City of Lynwood. Triumph treats aluminum and titanium parts for the aerospace industry by using anodizing, plating and painting operations.

On May 31, 2017, SCAQMD staff sent a letter requesting Triumph to either prepare an ATIR or a VRRP due to the facility having a priority score greater than 10 based on its 2014 annual emissions with methylene phenyl diisocyanates being the main air toxic contributor to the high priority score. Methylene phenyl diisocyantes emissions were due to coating operation in the spray booths.

Triumph elected to prepare an ATIR, which was submitted on October 30, 2017. As part of the ATIR submittal, Triumph staff audited the reported emissions and discovered that they had misreported the quantities of isocyanates and diisocyanates. This information, along with the submitted ATIR, is currently under review.

2.3.33 University of California, Irvine (ID 800288) – Irvine

The University of California, Irvine (UCI) is a public research university located in the City of Irvine. On March 30, 2017, SCAQMD sent a letter requesting UCI to either prepare an ATIR or a VRRP due to the facility having a priority score greater than 10 based on 2015 annual emissions with polycyclic aromatic hydrocarbons emissions as the main contributor to the high priority score. Polycyclic aromatic hydrocarbons emissions were mainly from the gas turbine powering the cogeneration unit at the university.

UCI elected to prepare an ATIR which was submitted on August 29, 2017. Following review, SCAQMD staff revised the priority score with updated distances between the cogeneration unit and the nearest receptors. The revised priority score was calculated to be less than 10 and SCAQMD staff notified UCI on September 20, 2017 that no further action was required in response to the original notification.

2.3.34 Ultramar Refining Company (ID 800026) – Wilmington

Ultramar Refining Company (Ultramar) is a subsidiary of Valero Energy Corporation and operates a 135,000 barrel per day crude oil processing capacity petroleum refinery facility in Wilmington.

On March 29, 2017, SCAQMD staff sent a letter requesting Ultramar to either prepare an ATIR or a VRRP due to the facility having a priority score greater than 10 based on 2015 annual emissions with polycyclic aromatic hydrocarbons emissions as the main air toxic contributor to the high priority score.

Ultramar elected to participate in the Voluntary Risk Reduction Program and submitted the VRRP on August 25, 2017. After review by SCAQMD staff, items were found to be missing, which included throughput data, emission factors, calculation basis, and certain devices and device descriptions. Ultramar subsequently provided the missing information on September 15 and October 26, 2017. Ultramar provided information on emission factor reference sources on February 26, 2018. SCAQMD staff is currently reviewing the VRRP and accompanying revisions.

2.3.35 Universal City Studios, LLC (ID 800202) – Universal City

Universal City Studios, LLC (Universal) is an amusement park and a motion picture/television studio located in Universal City. The facility uses a number of spray booths to apply coatings for park operations.

On June 30, 2017, SCAQMD staff sent a letter requesting Universal to either prepare an ATIR or a VRRP due to the facility having a priority score greater than 10 based on 2015 annual emissions with isocyanate and diisocyanate emissions as the main contributor to the high priority score. Universal informed SCAQMD staff that some elements of the 2015 emissions report required corrections and clarifications. Universal provided evidence showing the usage of certain coatings containing isocyanates in spray booths were over-reported and that none of the isocyanates and diisocyanates reported contained toluene diisocyanates. Substantiating information for correction to the emissions report were provided to SCAQMD staff on August 4 and August 24, 2017. SCAQMD staff reviewed and approved the amendments to the emissions report and the resulting priority score was calculated to be below 10. SCAQMD informed Universal on September 29, 2017 that no further action was required based on the original notification request.

2.4 Rule 1401 Permitting and HRA Modeling Projects

Under Rule 1401, any new, relocated, or modified permit units which emit toxic air contaminants as specified in the rule are subject to specific allowable limits for maximum individual cancer risk (MICR), cancer burden, and non-cancer acute and chronic HI. In 2017, SCAQMD staff processed approximately 2,100 Rule 1401 permit applications for 1,300 facilities. Under Rule 1401, SCAQMD staff reviews new and modified permit applications to ensure that the health risk levels are not exceeded. Staff also provides review and verification of air quality and HRA analyses for Hearing Board cases. In 2017, SCAQMD staff reviewed and approved 20 HRAs for permit applications.

2.5 Rule 1420.2 Modeling Projects

Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities, was adopted on October 2, 2015 to protect public health by minimizing public exposure to lead emissions and preventing

exceedances of the NAAQS for lead in the Basin. The rule established ambient lead monitoring requirements, stricter ambient lead thresholds, enclosure requirements, and more comprehensive housekeeping provisions for lead-acid battery manufacturers, secondary smelters, scrap recyclers, and an iron and steel mini-mill. Under this rule, air dispersion modeling is used to find the appropriate location for placement of the ambient air monitors. In 2017, SCAQMD staff reviewed dispersion modeling for four facilities under Rule 1420.2, which concluded the compliance determination efforts started in 2016. Table 2 shows the facilities evaluated under this rule.

Table 3 – Rule 1420.2 Facilities with Dispersion Modeling Review

Facility Name	ID #
P. Kay Metal , Inc.	72937
Teledyne Battery Products	173302
Industrial Battery Engineering, Inc.	3277
Senior Aerospace, SSP	105598

2.6 Rules Adopted or Amended in 2017

2.6.1 Adopted Rule 1430 – Control of Emissions from Grinding Operations at Metal Forging Facilities (March 2017)

Rule 1430 was adopted with the objective of reducing toxic emissions, particulate matter emissions, and odors from metal grinding and cutting operations at metal forging facilities. Prior to this rule, these activities were exempt from SCAQMD permitting and were unregulated. Air monitoring and sampling has shown metal particulates, which may contain toxic air contaminants such as nickel and cadmium, are generated by metal grinding and cutting operations. Rule 1430 prohibits metal grinding and cutting operations in the open and includes requirements to vent metal grinding and cutting operations to emission control devices, to meet a specified emission standard for the emission control devices, conduct metal grinding and cutting operations in a building enclosure, and housekeeping measures to further reduce fugitive emissions.

2.6.2 Adopted Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants (July 2017)

Rule 1466 established requirements to minimize fugitive particulate matter emissions from earth-moving activities at sites determined by U.S. EPA, California Department of Toxic Substances Control, State Water Resources Control Board, or Regional Water Quality Control Board to contain soil with arsenic, asbestos, cadmium, hexavalent chromium, lead, mercury, nickel, or polychlorinated biphenyls. The Executive Officer can also identify sites that would be applicable to Rule 1466 based on specified criteria. The rule requires monitoring of ambient PM10 levels, and dust control measures such as fencing and wetting of soil and use of chemical stabilizers. Notification to SCAQMD is required when earth-moving activities are occurring and when PM10 levels are exceeded, along with signage and recordkeeping requirements. The Resolution directed staff to return to the Governing Board no later than February 2018, with an amendment for the

Board's consideration to expand the list of applicable toxic air contaminants to include pesticides, herbicides, other metals, persistent bioaccumulative toxics, and semivolatile organic compounds.

2.6.3 Amended Rule 1401 – New Source Review of Toxic Air Contaminants (September 2017)

In June 2015, Rule 1401 was amended to incorporate the 2015 OEHHA Health Risk Assessment Guidelines (2015 OEHHA HRA Guidelines). The amendments allowed spray booths and retail gasoline dispensing facilities to continue the use of the previous guidelines to allow staff additional time to better understand potential permitting impacts. Based on analysis of SCAQMD permits, implementation of the 2015 OEHHA HRA Guidelines to have minimal impacts to new or modified spray booths or gasoline dispensing facilities. Amended Rule 1401 required that these two source categories begin using SCAQMD's Risk Assessment Procedures (Version 8.1) which incorporate the 2015 OEHHA HRA Guidelines for spray booths and gasoline dispensing facilities, revised emission factors and speciation profiles for gasoline dispensing facilities, and updated meteorological data. The amendments also updated the list of toxic air contaminants to be consistent with OEHHA.

2.6.4 Amended Rule 1420 – Emissions Standard for Lead (December 2017)

The amendments to Rule 1420 further protect public health from exposure to lead from facilities not covered under Rules 1420.1 and 1420.2, and help ensure continued attainment of the NAAQS for lead. The amendments include an initial ambient air lead concentration limit of 0.150 µg/m3 averaged over any consecutive 30 days, which will be lowered to a final limit of 0.100 µg/m3 by 2021 to be consistent with Rules 1420.1 and 1420.2. The rule also establishes requirements for building enclosures, revisions to the point source lead emission limits, periodic source testing, conditional ambient air monitoring, and enhanced housekeeping measures.

2.6.5 Amended Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants (December 2017)

Rule 1466 was adopted on July 7, 2017 to control fugitive particulate matter emissions from soils with toxic air contaminants. During the adoption of Rule 1466, the Governing Board directed staff to expand the list of applicable toxic air contaminants to include pesticides, herbicides, other metals, persistent bioaccumulative toxics, and semi-volatile organic compounds. The amendment also expands the applicability of Rule 1466 to other government designated sites and provides for alternative compliance and clarified certain provisions.

2.7 Toxic Program Impacts with New or Revised Toxic Air Contaminants

Pursuant to Rule 1402, once OEHHA finalizes the identification of a new toxic air contaminant or revises a risk value for an existing toxic air contaminant, SCAQMD staff provides notice to the Governing Board and affected industries annually through the AB2588 Annual Report. This report also includes a preliminary estimate of Rule 1402 program impacts. Rule 1401 includes additional requirements for reporting to the Governing Board on permitting impacts.

OEHHA proposed changes to two Reference Exposure Levels (RELs) in 2017; one for Hexamethylene Diisocyanate (HDI) - CAS#822060, and the other for toluene - CAS#108883[16]. RELs are airborne concentration levels of a chemical that are anticipated to result in adverse non-cancer health effects for specified exposure durations in the general population, including sensitive subpopulations, when exceeded. RELs cover different types of exposure: infrequent 1-hour exposures, repeated 8-hour exposures, and continuous long-term exposure. The proposed HDI and toluene RELs were developed using the most recent *Air Toxics "Hot Spots" Program Technical Support Document for the Derivation of Noncancer Reference Exposure Levels*[17], finalized by OEHHA in 2008. The public review and comment period for both proposed REL changes was from December 1, 2017 to February 14, 2018. SCAQMD staff will evaluate the impact of the REL changes once they are finalized and published by OEHHA.

2.8 National Air Toxics Assessment (NATA)

Every three years, beginning in 1996, U.S. EPA prepares a National Air Toxics Assessment (NATA).[18] The purpose of NATA is to provide census-tract modeled ambient and exposure concentrations and risks by: (1) identification and prioritization of toxic air contaminants of greatest concern and, (2) determination of the relative risk contribution from each of the major source categories (i.e., on-road, off-road, point, and area). The results would allow U.S. EPA, state and local agencies to prioritize pollutants, sources and areas of interest for additional studies. As part of this process, SCAQMD staff coordinates with U.S. EPA and CARB staff to ensure that NATA incorporates the best available local emissions data. The current triennial inventory process began in September 2016 for the purpose of reviewing data from the 2014 National Emissions Inventory. In September 2016, U.S. EPA released preliminary point source data for review, which included over 1,300 facilities within SCAQMD's jurisdiction. In January 2017, U.S. EPA amended the data set to account for updated meteorological data and the unit risk change for ethylene oxide. SCAQMD staff identified approximately 70 facilities as potential sources of elevated risk for further investigation.

Following the investigation, SCAQMD staff made several corrections to emissions, source characteristics, processes, pollutants, and stack parameters for approximately 20 facilities. The corrections were provided to U.S. EPA from April to May, 2017. The second review for data regarding non-point source data began in late June. U.S. EPA's anticipated schedule for review of this information was through the end of 2017, with final results available in Spring of 2018. The results have not been finalized and preliminary information has not been released to the public yet.

[16] https://oehha.ca.gov/air/crnr/public-comment-period-and-workshops-draft-reference-exposure-levels-hexamethylene

[17] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-technical-support-document-derivation

[18] The U.S. EPA's web portal to NATA is at: https://www.epa.gov/national-air-toxics-assessment

3. FUTURE ACTIVITIES

3.1 AB 2588 Activities

In 2018, staff will prioritize approximately 260 facilities, and notify those with high priority scores to prepare ATIRs or VRRPs, if eligible, and HRAs and RRPs, if necessary. There are a substantial number of ATIRs and VRRPs that are expected to be reviewed in 2018. Public notification will also occur for multiple facilities including GS II (ID 57094), Aerocraft Heat Treating Co. (ID 23752), and Anaplex Corporation (ID 16951).

3.2 Model-Monitor Reconciliation

In response to community concerns regarding fugitive emissions and difficulties quantifying those emissions, the SCAQMD Governing Board, at its June 3, 2016 meeting, approved a contract for Protocol Development for Reconciling Air Quality Monitoring Data with Dispersion Modeling Results to provide support in developing a consistent methodology for facilities to use when preparing AB 2588 HRAs. On June 30, 2017, work on this contract was suspended due to a potential conflict of interest issue which was brought to staff's attention. Staff is currently working to resolve this conflict.

3.3 Rulemaking

3.3.1 – Proposed Amended Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities

Amendments to Rule 1403 will include specific requirements when conducting asbestos-emitting demolition/renovation activities at schools, daycare centers, and other establishments that have sensitive populations. Amendments may include other provisions to improve the implementation of the rule. No specific control strategies have been identified. As of May 2018, one working group meeting has been held.

3.3.2 – Proposed Amended Rule 1407 - Control of Emissions of Arsenic, Cadmium and Nickel from Non-Ferrous Metal Operations

Amendments to Rule 1407 will establish additional requirements to minimize air toxics from metal melting operations. SCAQMD staff is analyzing sources subject to the proposed amendments and may develop a separate proposed Rule 1407.1 for the largest sources subject to the proposed amendments and expand the applicability to address ferrous metal operations and hexavalent chromium emissions. As of May 2018, four working group meetings have been held. Control strategies under discussion include adopting point source controls and parameter monitoring for air pollution control equipment, as well as building enclosures to minimize or eliminate cross-draft and certain housekeeping measures.

3.3.3 – Proposed Rule 1407.1 – Control of Emissions of Arsenic, Cadmium and Nickel from Ferrous Metal Operations

Proposed Rule 1407.1 will address ferrous metal melting, compared to Proposed Amended Rule 1407 which will address non-ferrous melting. During the rulemaking process, some stakeholders requested to maintain the existing applicability of Rule 1407 and address ferrous metal melting in a separate rule. Proposed Rule 1407.1 will primarily be a data gathering rule with requirements for emissions testing, analyses, and recordkeeping. Emissions testing may include testing for arsenic,

cadmium, hexavalent chromium, lead, and nickel. Analyses may include bag house catch, raw materials, final materials, metal-containing waste, and slag. Recordkeeping requirements may include melt logs, weight of metal-containing waste, and schedules of housekeeping and maintenance. SCAQMD staff will evaluate Rule 1407.1 data for emissions data from ferrous metal-melting operations for future rulemaking.

3.3.4 – Proposed Amended Rule 1410 – Hydrogen Fluoride Use at Refineries

The proposed amendments will establish requirements for use of hydrogen fluoride at refineries. Hydrogen fluoride is a chemical compound used in petroleum alkylation processes to make higher octane gasolines. When contacted with moisture, it converts to hydrofluoric acid, which is highly corrosive and toxic. Six working group discussions were held in 2017. The measures under discussion involve identifying alternative alkylation technologies, methods to transition from hydrogen fluoride to other alkylation technologies, and monitoring methodologies, and mitigation of the effects of any releases. There are currently two refineries within SCAQMD's jurisdiction which would be subject to this rule. Previously, Rule 1410 was adopted in 1991 but suspended the following year due to Los Angeles Superior Court action.

3.3.5 – Proposed Rule 1435 - Control of Emissions from Metal Heat Treating Processes

Proposed Rule 1435 will establish requirements to reduce metal particulate emissions from heat treating processes. SCAQMD staff is currently evaluating metal heat treating processes to determine the significance of hexavalent chromium emissions. No specific control strategies have been identified at this time.

3.3.6– Proposed Amended Rule 1469 - Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations

Proposed Amended Rule 1469 proposes new requirements for hexavalent chromium-containing tanks that are currently not regulated, building enclosures, housekeeping and best management practices, periodic source testing, and parameter monitoring of pollution control equipment. Proposed Amended Rule 1469 includes provisions for a revised chemical fume suppressant certification process that further considers toxicity and exposure, and provisions to encourage the elimination of hexavalent chromium in Rule 1469 processes. Additional proposed amendments are incorporated to align Rule 1469 with U.S. EPA National Emission Standards for Hazardous Air Pollutants for Chromium Electroplating.

3.3.7– Proposed Rule 1480 – Air Toxics Metal Monitoring

Proposed Rule 1480 will establish provisions for when ambient monitoring is required and the toxic air contaminants that will be monitored. Ambient air monitoring measures concentration of specific pollutants in ambient air can identify emission sources that were previously not known and need pollution controls, and can assist in determining effectiveness of existing pollution controls that are currently implemented. The rule is intended to provide a comprehensive approach to all toxic metals monitoring as well as provide current and consistent sampling methodologies across all programs. Threshold levels for the monitored toxic air contaminants and approaches for monitoring will also be addressed. As of May 2018, one working group meeting has been held.

APPENDIX A - HEALTH RISKS FROM FACILITIES WITH AN APPROVED HRA

The tables in Appendix A list the facilities and the health risks identified in their HRAs or RRPs as reviewed and approved by SCAQMD staff. Risks presented in this table were calculated based on guidance that was available from OEHHA at the time of HRA approval. For example, the health risks presented in this appendix for facilities with HRA approval date prior to 2015 do not include the health risk calculation methodologies (2015 OEHHA HRA Guidelines) that account for the differences in children's breathing rates and place greater emphasis on their susceptibility to cancer risk in comparison to adults. The health risks in all HRAs finalized by SCAQMD staff in 2015 were recalculated to reflect the 2015 OEHHA HRA Guidelines.

Appendix A-1 lists the facilities in order of their cancer risks and Appendix A-2 lists the facilities ordered by facility ID. The listed health risks are from an approved HRA, unless an approved RRP has been fully implemented. In those instances, the listed health risks reflect the health risks after the implementation of the RRP. Appendix A-3 lists the status of the facility's RRP and is presented by facility ID. Attention should also be given to the other footnotes in the table denoting facilities with updated HRAs pending approval and facilities with health risks including emergency diesel internal combustion engines. It also provides the current status of each facility as follows:

- A – Active (note that facilities with "Active" status within SCAQMD's database might not be in operation currently)
- I – Inactive
- OB – Out of business

"Inactive" and "out of business" facilities have been retained for historical purposes since staff occasionally receives public inquiries regarding "inactive" or "out of business" facilities. Facilities that have gone through change of ownership could have different name and facility ID numbers. The following health risk levels are identified in SCAQMD Rule 1402 – Control of Toxic Air Contaminants from Existing Sources:

- **Action Risk Level:** Cancer risk $\geq$ 25 in a million; Acute HI $\geq$ 3.0; Chronic HI $\geq$ 3.0, Cancer Burden $\geq$ 0.5
- **Public Notification Level:** Cancer risk $\geq$ 10 in a million; Acute HI > 1.0; Chronic HI > 1.0
- **Exemption Level:** Cancer risk < 1 in a million; Acute HI < 0.1; Chronic HI < 0.1

Table A-1

Health Risks from Facilities with an Approved HRA

(Listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
11818	A	HIXSON METAL FINISHING	NEWPORT BEACH	0.8	ND	0.04	0.006	2015
124838	OB	EXIDE TECHNOLOGIES	LOS ANGELES	0	ND	0	0	2013
18989	A	BOWMAN PLATING CO INC	COMPTON	5.01	0.00102	0.0141	0.0115	2015
18931	A	GERDAU	RANCHO CUCAMONGA	8.7	0.25	0.49	0.61	2015
171107	A	PHILLIPS 66 CO/LA REFINERY WILMINGTON PL	WILMINGTON	23.2	0.29	0.1	0.7	2013
122822	I	CONSOLIDATED FILM INDUSTRIES	HOLLYWOOD	21.0	ND	0.1	0.4	2000
176967	A	GAS RECOVERY SYSTEMS, INC	IRVINE	20.1	0.18	0.6	0.3	2009
14495	A	VISTA METALS CORP	FONTANA	19.8	0.06	0.0	0.3	2008
165192	A	TRIUMPH AEROSTRUCTURES, LLC (b)	HAWTHORNE	19.7	ND	0.64	0.24	1999
11142	OB	KEYSOR-CENTURY CORP	SAUGUS	17.0	ND	0.5	0.1	2000
8547	A	QUEMETCO INC (c)	INDUSTRY	7.1	0.45	0.09	0.69	2016
22911	A	CARLTON FORGE WORKS	PARAMOUNT	15.4	ND	1.76	1.04	2016
35302	A	OWENS CORNING (c)	COMPTON	14.0	0.02	0.1	0.1	2000
41229	A	LUBECO INC	LONG BEACH	14.0	ND	0.0	0.1	2002
48323	A	SIGMA PLATING CO INC	LA PUENTE	13.8	0.017	0.01	0.74	2001
23907	A	JOHNS MANVILLE CORP	CORONA	13.0	ND	0.4	2.7	1999
18648	OB	CROWN CITY PLATING CO.	EL MONTE	12.0	ND	0.4	0.1	2000
29110	A	ORANGE, COUNTYOF - SANITATION DISTRICT (d)	HUNTINGTON BEACH	10.7	ND	1.8	0.5	2007
800436	A	TESORO REFINING AND MARKETING CO	WILMINGTON	10.7	0.37	0.3	0.4	2013
155828	A	GARRETT AVIATION SVCS. LLC DBA STANDARD	LOS ANGELES	9.3	ND	0.19	0.25	2002
106797	OB	SAINT-GOBAIN CONTAINERS LLC	LOS ANGELES	9.9	ND	0.0	0.1	2000
101380	OB	GENERAL DYNAMICS OTS (DOWNEY) INC	DOWNEY	9.8	ND	0.0	0.1	2000
148925	A	CHERRY AEROSPACE LLC	SANTA ANA	9.7	ND	0.1	0.2	1999
800373	I	CENCO REFINING COMPANY	SANTA FE SPRINGS	9.7	ND	0.3	0.1	2000
800183	A	PARAMOUNT PETR CORP (EIS USE)	PARAMOUNT	9.6	ND	0.0	0.0	2002
800318	A	GRISWOLD INDUSTRIES	COSTA MESA	9.5	0.01	0.1	0.0	2001
15504	A	SCHLOSSER FORGE CO	RANCHO CUCAMONGA	9.5	0.067	1.59	1.11	2002
800149	A	US BORAX INC	WILMINGTON	9.5	ND	0.0	0.0	2000
10510	A	GREGG INDUSTRIES INC	EL MONTE	9.4	ND	0.6	0.6	2008
62897	OB	NORTHROP GRUMMAN CORP, MASD	PICO RIVERA	9.4	ND	1.0	0.5	2000

Table A-1 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
42922	OB	CMC PRINTED BAG INC	WHITTIER	9.0	ND	0.0	0.0	1995
174710	A	TESORO LOGISTICS OP LLC, VINVALE MARKETI	SOUTH GATE	9.0	ND	0.0	0.0	1994
169990	A	SPS TECHNOLOGIES, LLC	GARDENA	8.9	ND	0.1	0.1	1999
800184	A	GOLDEN WEST REF CO	SANTA FE SPRINGS	8.8	ND	0.2	0.1	1997
1744	A	KIRKHILL RUBBER CO	BREA	8.7	0.001	0.2	0.1	2007
175124	A	AEROJET ROCKETDYNE OF DE, INC.	CANOGA PARK	8.7	ND	0.0	0.0	1995
44454	A	STRUCTURAL COMPOSITES IND	POMONA	8.6	0.001	0.0	0.2	2002
107168	I	ADVANCED SPA DESIGNS	LA HABRA	8.6	ND	0.0	0.0	1995
2680	A	LA CO., SANITATION DISTRICT	WHITTIER	8.6	ND	0.0	0.0	1999
15736	A	HENRY CO	HUNTINGTON PARK	8.5	ND	0.0	0.0	2000
800057	A	KINDER MORGAN LIQUIDS TERMINALS, LLC	CARSON	8.5	ND	0.0	0.1	1999
800079	A	PETRO DIAMOND TERMINAL CO	LONG BEACH	8.3	ND	0.0	0.2	1998
125281	OB	MODERN PLATING, ALCO CAD-NICKEL PLATING	LOS ANGELES	8.2	ND	0.1	0.0	1995
21615	OB	PERKINELMER OPTOELECTRONICS SC, INC	AZUSA	8.1	ND	0.2	0.1	1998
110924	A	WESTWAY TERMINAL COMPANY	SAN PEDRO	8.0	ND	0.3	0.5	1997
3609	I	AL'S PLATING CO INC	LOS ANGELES	7.8	ND	0.3	0.2	1999
37603	A	SGL TECHNIC INC, POLYCARBON DIVISION	VALENCIA	7.8	ND	0.0	0.4	1998
800182	A	RIVERSIDE CEMENT CO (c)	RIVERSIDE	7.8	0.11	0.1	0.1	2001
13920	A	ST. JOSPEH HOSPITAL	ORANGE	7.7	0.004	0.8	0.3	2008
800089	A	EXXONMOBIL OIL CORPORATION	TORRANCE	7.7	0.15	0.2	0.5	2013
18294	A	NORTHROP GRUMMAN CORP, AIRCRAFT DIV	EL SEGUNDO	7.6	ND	0.13	0.05	1999
113170	A	SANTA MONICA - UCLA MEDICAL CENTER (b)	SANTA MONICA	7.6	0.14	0.2	0.0	1997
800214	A	LA CITY, SANITATION BUREAU (c)	PLAYA DEL REY	7.6	ND	0.1	0.0	1999
20197	A	LAC/USC MEDICAL CENTER	LOS ANGELES	7.5	ND	0.7	0.4	2007
800032	A	CHEVRON U.S.A. INC (EIS USE)	MONTEBELLO	7.5	0.14	0.0	0.2	1999
800150	A	US GOVT, AF DEPT, MARCH AFB (NSR USE)	RIVERSIDE	7.4	0.02	0.3	0.0	2008
108701	A	SAINT-GOBAIN CONTAINERS LLC	EL MONTE	7.3	ND	0.1	0.1	2000
117560	A	EQUILON ENTER, LLC-SHELL OIL PROD. US	WILMINGTON	7.3	ND	0.0	0.1	1998
174655	A	TESORO REFINING & MARKETING CO, LLC	CARSON	7.3	ND	0.3	0.1	2000
800026	A	ULTRAMAR INC (NSR USE ONLY)	WILMINGTON	7.2	0.18	0.7	0.2	2012
800113	A	ROHR,INC	RIVERSIDE	7.2	0.01	0.9	0.0	2007
800236	A	LA CO. SANITATION DIST	CARSON	7.2	ND	0.2	0.1	2007

Table A-1 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
49387	A	UNIV CAL, RIVERSIDE	RIVERSIDE	7.1	ND	0.0	0.0	1999
27343	OB	CON AGRA INC, GILROY FOODS DBA	SANTA ANA	7.1	ND	0.2	0.1	1995
57094	A	GS ROOFING PRODUCTS CO, INC/CERTAINTEED (c)	WILMINGTON	7.0	ND	0.0	0.0	2000
140499	A	AMERESCO HUNTINGTON BEACH, L.L.C.	HUNTINGTON BEACH	7.0	ND	0.0	0.0	1995
800209	A	BKK CORPORATION, LANDFILL DIVISION GNRL	WEST COVINA	6.9	ND	0.0	0.1	2000
800372	A	EQUILON ENTER. LLC, SHELL OIL PROD. US	CARSON	6.9	ND	0.4	0.1	2001
20280	A	METAL SURFACES INC	BELL GARDENS	6.8	0	0.9	0.3	2011
5723	A	DUCOMMUN AEROSTRUCTURES INC	ORANGE	6.7	ND	0.0	0.1	1999
173913	A	TRIUMPH PROCESSING, EMBEE DIV, INC.	SANTA ANA	6.6	ND	0.21	0.58	2000
17301	A	ORANGE, COUNTY OF - SANITATION DISTRICT	FOUNTAIN VALLEY	6.6	0.001	0.4	0.3	2007
118998	OB	CYTEC FIBERITE INC	CULVER CITY	6.6	ND	0.0	0.2	1997
171109	A	PHILLIPS 66 COMPANY/LOS ANGELES REFINERY	CARSON	6.6	0.11	0.0	0.3	2011
6643	A	TECHNICOLOR INC	NORTH HOLLYWOOD	6.5	ND	0.0	0.1	2007
34764	A	CADDOCK ELECTRONICS INC	RIVERSIDE	6.5	ND	0.0	0.1	2002
168088	A	PCCR USA	LYNWOOD	6.5	ND	0.1	1.6	1995
11726	A	GE ENGINE SERVICES	ONTARIO	6.5	ND	0.1	0.6	1999
2852	A	THE WALT DISNEY COMPANY	BURBANK	6.4	0.03	0.0	0.0	1997
800066	A	HITCO CARBON COMPOSITES INC	GARDENA	6.4	ND	0.3	0.0	1995
16660	A	THE BOEING COMPANY	HUNTINGTON BEACH	6.4	0.02	0.01	0.08	2015
4477	A	SO CAL EDISON CO	AVALON	6.3	0.02	0.0	0.0	2012
1226	A	HYATT DIE CAST & ENGINEERING CORP	CYPRESS	6.2	ND	0.0	0.1	1996
800067	A	BOEING SATELLITE SYSTEMS INC	EL SEGUNDO	6.2	ND	0.0	0.1	2000
146570	A	ROHM AND HAAS CHEMICALS LLC	LA MIRADA	6.2	ND	0.5	0.8	1999
45262	A	LA CO, SANITATION DISTRICT UNIT NO.02	GLENDALE	6.2	ND	0.0	0.1	1998
140961	A	GKN AEROSPACE TRANSPARENCY SYS INC	GARDEN GROVE	6.0	ND	0.0	0.5	1996
800022	A	CALNEV PIPE LINE CO (NSR USE)	BLOOMINGTON	5.9	ND	0.0	0.1	1999
800047	I	FLETCHER OIL & REF CO	CARSON	5.9	ND	0.0	0.0	1998
800198	A	ULTRAMAR INC (NSR USE ONLY)	WILMINGTON	5.9	ND	0.0	0.1	1999
800279	A	SFPP, L.P.	ORANGE	5.9	ND	0.0	0.2	1999
8578	OB	ASSOCIATED CONCRETE PROD. INC	SANTA ANA	5.8	ND	0.1	0.6	1999
136148	A	E/M COATING SERVICES	NORTH HOLLYWOOD	5.8	ND	0.3	0.6	1998
65382	A	SFPP, L.P.	BLOOMINGTON	5.8	ND	0.0	0.0	1996

Table A-1 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
164864	A	ARROWHEAD BRASS & PLUMBING	LOS ANGELES	5.7	ND	0.3	0.0	1995
800288	A	UNIV CAL IRVINE (NSR USE ONLY)	IRVINE	5.6	ND	0.0	0.1	1996
22410	A	PALACE PLATING	LOS ANGELES	5.6	ND	0.73	0.38	2004
38971	A	RICOH ELECTRONICS INC	IRVINE	5.6	ND	0.0	0.4	1995
14146	A	MAC GREGOR YACHT CORP	COSTA MESA	5.5	ND	0.0	0.1	1998
43201	A	SNOW SUMMIT INC	BIG BEAR LAKE	5.5	ND	0.2	0.0	2007
54424	A	L & L CUSTOM SHUTTERS	PLACENTIA	5.5	ND	0.2	0.2	2001
800409	A	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	REDONDO BEACH	5.5	ND	0.5	0.2	1998
800196	A	AMERICAN AIRLINES INC (EIS USE)	LOS ANGELES	5.4	0.190	0.86	0.08	2002
800171	A	EXXONMOBIL OIL CORPORATION	VERNON	5.3	ND	0.1	0.0	1997
134018	A	INDUSTRIAL CONTAINER SERVICES-CA LLC	MONTEBELLO	5.2	ND	0.6	0.2	2000
109198	A	TORCH OPERATING COMPANY	BREA	5.0	ND	0.0	0.0	2001
103888	A	SARGENT FLETCHER INC	EL MONTE	4.9	ND	0.2	0.0	1999
800037	A	DEMENNO/KERDOON	COMPTON	4.9	0.01	0.01	0.02	2009
11192	A	HI-SHEAR CORPORATION	TORRANCE	4.8	ND	0.0	0.0	2008
800038	A	THE BOEING COMPANY - C17 PROGRAM	LONG BEACH	4.8	ND	0.2	0.1	1999
800264	A	EDGINGTON OIL COMPANY	LONG BEACH	4.8	0.001	0.0	0.0	2002
101977	A	SIGNAL HILL PETROLEUM INC	LONG BEACH	4.7	ND	0.6	1.0	1998
3950	A	CROWN CORK & SEAL CO INC	LA MIRADA	4.6	ND	0.0	0.1	1997
83102	A	LIGHT METALS INC	INDUSTRY	4.5	0.01	0.0	2.7	2002
157451	A	VERNON MACHINE CORP, BENDER US DBA	VERNON	4.4	0.001	1.0	0.0	2002
800041	A	DOW CHEM U.S.A. (NSR USE)	TORRANCE	4.4	ND	0.1	0.0	2000
93346	A	WAYMIRE DRUM CO,INC.,S EL MONTE FACILITY	SOUTH EL MONTE	4.3	ND	0.1	0.2	1997
174591	A	TESORO REFINING & MARKETING CO LLC, CAL (c)	WILMINGTON	4.3	ND	0.1	0.2	1995
177042	A	SOLVAY USA, INC	LONG BEACH	4.3	ND	0.3	0.0	2001
124506	A	BOEING ELECTRON DYNAMIC DEVICES INC	TORRANCE	4.2	ND	0.5	0.1	1995
6459	OB	HONEYWELL INTERNATIONAL INC	VERNON	4.1	ND	0.0	0.0	1999
7533	A	HUGO NEU-PROLER CO	TERMINAL ISLAND	4.1	ND	1.3	0.1	
18439	OB	ACE PLATING CO INC	LOS ANGELES	4.1	ND	0.6	0.2	1998
45489	A	ABBOTT CARDIOVASCULAR SYSTEMS, INC.	TEMECULA	3.8	0.01	1.3	0.0	2002
126060	A	STERIGENICS US, LLC	ONTARIO	3.8	0	0.0	0.0	2007
8820	A	REULAND ELECTRIC CO, H.BRITTON LEES	INDUSTRY	3.7	ND	0.0	0.0	1996

Table A-1 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
9114	I	SOMITEX PRINTS OF CAL INC	INDUSTRY	3.7	ND	0.1	0.0	1996
17325	A	ACE CLEARWATER ENTER.	PARAMOUNT	3.7	ND	0.0	0.0	2002
106838	A	VALLEY-TODECO, INC	SYLMAR	3.7	ND	0.2	0.2	2000
105598	A	SENIOR FLEXONICS INC/STAINLESS STEEL DVN	BURBANK	3.6	ND	1.0	0.5	2001
7427	A	OWENS-BROCKWAY GLASS CONTAINER INC	VERNON	3.6	ND	0.01	0.06	1999
800007	OB	ALLIED SIGNAL INC (NSR USE ONLY)	EL SEGUNDO	3.6	ND	0.0	0.5	2000
126197	A	STERIGENICS US, INC.	LOS ANGELES	3.6	ND	0.0	0.0	1996
127568	A	ENGINEERED POLYMER SOLUTION, VALSPAR	MONTEBELLO	3.5	ND	0.1	0.5	2000
151899	A	VINTAGE PRODUCTION CALIFORNIA LLC	NEWHALL	3.5	ND	0.0	0.2	2000
140811	A	DUCOMMUN AEROSTRUCTURES INC	MONROVIA	3.5	0.01	0.0	0.0	2002
8015	A	ANADITE INC	SOUTH GATE	3.5	ND	0.63	0.78	1998
9163	A	INLAND EMPIRE UTL AGEN, A MUN WATER DIS	ONTARIO	3.4	ND	0.3	0.0	2007
57329	OB	KWIKSET CORP	ANAHEIM	3.4	ND	0.0	0.1	2000
151415	A	LINN WESTERN OPERATING, INC	BREA	3.4	ND	0.0	0.0	1999
800204	OB	SIMPSON PAPER CO	POMONA	3.4	ND	0.0	0.0	1996
153546	A	HUCK INTL INC. DBA ALCOA FASTENING SYS.	CARSON	3.3	ND	0.0	0.0	1999
126191	A	STERIGENICS US, INC.	LOS ANGELES	3.3	ND	0.0	0.0	1996
800063	A	GROVER PROD. CO (EIS USE)	LOS ANGELES	3.3	0.039	0.88	0.07	2001
800189	A	DISNEYLAND RESORT	ANAHEIM	3.3	0.03	0.1	0.1	2009
18396	A	SPRAYLAT CORP	LOS ANGELES	3.2	0	0.7	0.0	2012
6384	A	LA CO., RANCHO LOS AMIGOS MEDICAL CENTER	DOWNEY	3.1	ND	0.0	0.1	1999
113676	A	VICKERS	LOS ANGELES	3.0	ND	0.0	0.0	1995
11435	A	THE PQ CORP	SOUTH GATE	3.0	ND	0.0	0.0	1998
174703	A	TESORO REFINING & MARKETING CO LLC CARSO	CARSON	3.0	ND	0.0	0.0	1994
10005	A	ELECTRONIC CHROME GRINDING CO INC	SANTA FE SPRINGS	3.0	0.01	0.2	0.1	2001
52517	A	REXAM PLC, REXAM BEVERAGE CAN COMPANY	CHATSWORTH	2.9	0.01	0.7	0.1	2009
18452	A	UCLA (REGENTS OF UC) (c)	LOS ANGELES	2.9	ND	0.0	0.1	1999
2613	A	US GOVT, NAVY DEPT,NAVAL WEAPONS STN	SEAL BEACH	2.9	ND	0.1	0.0	2002
116868	A	EQUILON ENT LLC/RIALTO TERMINAL	BLOOMINGTON	2.9	ND	0.0	0.0	1999
800035	A	CONTINENTAL AIRLINES INC (NSR USE ONLY)	LOS ANGELES	2.8	ND	0.0	0.1	1995
48274	A	FENDER MUSICAL INST	CORONA	2.8	ND	0.0	0.4	1997
151798	A	TESORO REFINING AND MARKETING CO	CARSON	2.8	ND	0.1	0.0	1999

Table A-1 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
167981	A	TESORO LOGISTICS OPERATIONS LLC	WILMINGTON	2.8	ND	0.0	0.0	2000
800030	A	CHEVRON PRODUCTS CO.	EL SEGUNDO	2.7	0.28	0.3	0.1	2001
5887	A	NEXGEN PHARMA INC	IRVINE	2.7	ND	0.0	0.0	1997
16642	A	ANHEUSER-BUSCH INC., (LA BREWERY)	VAN NUYS	2.7	ND	0.0	0.1	1999
25440	A	ROBERTSHAW CONTROLS CO, GRAYSON CONTROLS	LONG BEACH	2.7	ND	0.0	1.0	1998
27701	A	CADDOCK ELECTRONIC	RIVERSIDE	2.7	ND	0.0	0.1	2002
46268	A	CALIFORNIA STEEL INDUSTRIES INC	FONTANA	2.7	0.02	0.2	0.0	1995
137517	A	PACIFIC TERMINALS LLC	ETIWANDA	2.7	ND	0.0	0.2	2000
175191	A	FREEPORT-MCMORAN OIL & GAS	LOS ANGELES	2.7	ND	0.0	0.1	1997
35483	A	WARNER BROTHERS STUDIO FACILITIES	BURBANK	2.6	ND	0.1	0.3	1997
134943	A	ALCOA GLOBAL FASTENERS, INC. SOUTH BAY	TORRANCE	2.6	ND	0.6	0.0	2008
37507	A	TROJAN BATTERY COMPANY	SANTA FE SPRINGS	2.6	0.001	1.1	1.3	2012
7949	A	CUSTOM FIBERGLASS MFG CO/CUSTOM HARDTOP	LONG BEACH	2.5	ND	0.0	0.0	1995
65381	A	SFPP, L.P. (NSR USE)	CARSON	2.4	ND	0.0	0.1	1999
79682	A	RAMCAR BATTERIES INC	COMMERCE	2.4	1	0.0	0.2	1998
18508	A	AIR PROD & CHEM INC	LOS ANGELES	2.4	ND	0.1	0.8	1999
800202	A	UNIVERSAL STUDIOS INC (EIS USE)	UNIVERSAL CITY	2.4	ND	0.0	0.0	1996
800387	A	CAL INST OF TECH	PASADENA	2.4	ND	0.1	0.0	2007
172878	A	TESORO LOGISTICS OPERATIONS LLC LONG BEA	LONG BEACH	2.4	ND	0.0	0.0	1999
133405	A	BODYCOTE INC/BODYCOTE THERMAL PROCESSING	LOS ANGELES	2.4	ND	0.0	0.2	1999
800039	I	DOUGLAS PRODUCTS DIVISION	TORRANCE	2.4	ND	0.0	0.0	1996
1208	OB	MICROSEMI CORP	SANTA ANA	2.3	ND	0.0	0.0	2001
90546	OB	SORIN BIOMEDICAL INC	IRVINE	2.3	ND	0.0	0.0	1996
160437	A	SOUTHERN CALIFORNIA EDISON	SAN BERNARDINO	2.3	<0.01	<0.01	<0.01	2013
800056	A	KINDER MORGAN LIQUIDS TERMINALS, LLC	WILMINGTON	2.3	0.01	0.0	0.0	1997
800111	OB	THE BOEING COMPANY	DOWNEY	2.3	ND	0.0	0.1	1996
103659	OB	4MC-BURBANK, INC.	BURBANK	2.2	ND	0.6	0.0	2004
99773	A	CYTEC FIBERITE INC	ANAHEIM	2.2	0.0004	0.0	0.2	2000
9668	A	DELUXE LABORATORIES INC,DELUXE LABORATOR	HOLLYWOOD	2.1	ND	0.0	0.0	2000
40829	A	HAWKER PACIFIC INC	SUN VALLEY	2.1	0.0003	0.0	0.1	2009
142267	A	FS PRECISION TECH LLC	RANCHO DOMINGUEZ	2.0	ND	0.1	0.2	2001
800181	A	CALIFORNIA PORTLAND CEMENT CO (c)	COLTON	2.0	ND	0.0	0.4	1996

Table A-1 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
2605	A	3M PHARMACEUTICALS	NORTHRIDGE	2.0	ND	0.4	0.4	1996
14502	A	VERNON CITY, LIGHT & POWER DEPT	VERNON	2.0	0.0004	0.0	0.0	2007
54627	A	HICKORY SPRINGS OF CAL INC	COMMERCE	2.0	ND	0.0	0.5	1998
800325	A	TIDELANDS OIL PRODUCTION CO	LONG BEACH	1.9	ND	0.1	0.6	1999
10245	A	LA CITY,SANITATION BUREAU,TERMINAL ISLAN	SAN PEDRO	1.8	ND	0.0	0.0	2000
23559	OB	JOHNSON CONTROLS BATTERY GROUP INC	FULLERTON	1.8	ND	0.0	0.1	2001
800003	A	HONEYWELL INTERNATIONAL INC	TORRANCE	1.8	ND	0.0	0.0	1999
8309	A	CAMBRO MANUFACTURING CO	HUNTINGTON BEACH	1.7	ND	0.0	0.1	2000
22467	A	LEFIELL MFG CO	SANTA FE SPRINGS	1.7	ND	0.7	0.2	2000
82512	A	BREA CANON OIL CO	WILMINGTON	1.7	ND	0.0	0.0	1996
132954	A	ALL AMERICAN ASPHALT	SAN FERNANDO	1.6	<0.02	0.4	0.3	2017
119907	A	BERRY PETROLEUM COMPANY	SANTA CLARITA	1.6	ND	0.2	0.7	1999
119920	A	PECHINEY CAST PLATE INC	VERNON	1.6	ND	0.3	0.3	1996
133660	A	HAYDEN INDUSTRIAL PRODUCTS	CORONA	1.6	ND	0.8	0.4	1998
107350	A	NATIONAL O-RINGS	DOWNEY	1.5	ND	0.0	0.0	2001
2638	A	OCCIDENTAL COLLEGE	LOS ANGELES	1.5	ND	0.1	0.0	2007
126536	A	CONSOLIDATED FOUNDRIES - POMONA	POMONA	1.5	ND	0.0	0.0	1999
25070	A	LA CO., SANITATION DISTRICT (c)	WHITTIER	1.5	0.003	0.3	0.1	2009
82513	A	BREA CANON OIL COMPANY INC	HARBOR CITY	1.4	ND	0.0	0.0	1996
800408	A	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	MANHATTAN BEACH	1.4	ND	0.9	0.1	1998
3968	A	TABC, INC	LONG BEACH	1.4	ND	0.1	0.2	1999
62679	A	KOP-COAT INC	VERNON	1.3	ND	0.0	0.5	1997
126544	A	PAC FOUNDRIES-INDUSTRY	INDUSTRY	1.3	ND	0.6	0.1	1996
161300	A	SAPA EXTRUDER, INC	INDUSTRY	1.3	ND	0.0	0.0	1999
2526	A	CHEVRON PRODUCTS CO	VAN NUYS	1.3	ND	0.0	0.0	1996
22551	A	THUMS LONG BEACH CO	SAN PEDRO	1.2	ND	0.0	0.0	2000
42633	A	LA CO., SANITATION DIST	POMONA	1.2	ND	0.0	0.0	1996
106009	A	VENOCO INC.	BEVERLY HILLS	1.2	ND	0.0	0.0	2005
152054	A	LINN WESTERN OPERATING INC	BREA	1.1	ND	0.0	0.1	1996
42514	A	LA CO.,SANITATION DIST,CALABASAS LNDFILL	AGOURA	1.1	0	0.1	0.0	2010
124806	OB	EXIDE TECHNOLOGIES	INDUSTRY	1.0	ND	0.0	0.0	1999
800127	A	SO CAL GAS CO (EIS USE)	MONTEBELLO	1.0	0	0.0	0.0	2009

Table A-1 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
7730	A	CARPENTER CO	RIVERSIDE	0.96	ND	0.03	1.34	2003
20375	A	PRUDENTIAL OVERALL SUPPLY	RIVERSIDE	1.0	ND	0.0	0.1	1997
6670	A	TRU CUT INC	LOS ANGELES	< 1	ND	0.0	0.0	2002
22808	I	PRICE PFISTER INC	PACOIMA	0.9	ND	0.2	0.1	1996
47056	OB	MYERS CONTAINER CORP, IMACC CORP DIV	HUNTINGTON PARK	0.9	ND	0.2	2.0	2002
5177	A	ITT GILFILLAN UNIT NO.02	VAN NUYS	0.9	ND	0.1	0.2	1998
3134	A	THUMS LONG BEACH CO, UNIT NO.05	SAN PEDRO	0.8	ND	0.0	0.0	1996
18378	A	GRUBER SYS INC	VALENCIA	0.8	ND	0.1	0.1	2004
22556	A	THUMS LONG BEACH CO, UNIT NO.02	SAN PEDRO	0.8	ND	0.0	0.0	1996
111415	A	VAN CAN COMPANY	FONTANA	0.8	ND	0.0	0.1	1996
14544	OB	SANTA FE ENAMELING & METAL FINISHING CO	SANTA FE SPRINGS	0.8	ND	0.0	0.4	1999
120088	A	BREITBURN ENERGY COMPANY, LLC	SANTA FE SPRINGS	0.8	ND	0.0	0.0	1998
118406	A	CARSON COGENERATION COMPANY	CARSON	0.8	ND	0.2	0.0	2007
126964	A	EDWARDS LIFESCIENCES LLC	IRVINE	0.8	ND	0.0	0.0	1995
22373	A	JEFFERSON SMURFIT CORPORATION (U.S.)	LOS ANGELES	0.7	ND	0.0	0.0	1996
24060	A	TOMKINS INDUSTRIES INC-LASCO PRODS GROUP	ANAHEIM	0.7	ND	0.0	0.0	1996
800091	A	MOBIL OIL CORP (NSR USE ONLY)	ANAHEIM	0.7	ND	0.0	0.0	1999
772	A	DEFT INC	IRVINE	0.7	ND	0.0	0.0	1995
24756	A	CRANE CO, HYDRO-AIRE DIV	BURBANK	0.6	ND	0.0	0.1	1997
115394	A	AES ALAMITOS, LLC	LONG BEACH	0.6	ND	0.0	0.0	1999
134931	A	ALCOA GLOBAL FASTENERS, INC.	FULLERTON	0.6	ND	1.90	0.02	1997
800327	A	GLENDALE CITY, GLENDALE WATER & POWER	GLENDALE	0.6	ND	0.0	0.0	1999
15647	A	CUSTOM ENAMELERS INC	FOUNTAIN VALLEY	0.6	ND	0.1	0.0	2000
3093	A	LA CO., OLIVE VIEW/UCLA MEDICAL CENTER	SYLMAR	0.5	ND	0.0	0.0	1999
21895	A	AC PRODUCTS INC	PLACENTIA	0.5	ND	0.0	0.0	2003
6281	A	US GOVT,MARINE CORPS AIR STATION,EL TORO	SANTA ANA	0.5	ND	0.0	0.0	1996
1634	OB	STEELCASE INC, WESTERN DIV	TUSTIN	0.5	ND	0.0	0.0	1995
39388	A	THUMS LONG BEACH CO, UNIT NO.03	SAN PEDRO	0.5	ND	0.0	0.0	1996
61160	A	GE ENGINE SERVICES	ONTARIO	0.5	ND	0.7	0.01	2003
800267	A	TRIUMPH PROCESSING, INC.	LYNWOOD	0.5	0	0.1	0.4	2012
152501	A	PRECISION SPECIALTY METALS INC	LOS ANGELES	0.5	ND	0.4	0.2	2001
43436	A	TST, INC.	FONTANA	0.4	0.11	0.0	0.4	1997

Table A-1 (cont'd)

Health Risks from Facilities with an Approved HRA

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18990	A	LIFE PAINT CO	SANTA FE SPRINGS	0.4	ND	0.0	0.0	2001
12660	I	GOLDSHIELD FIBERGLASS, INC, PLANT #58	FONTANA	0.4	ND	0.0	0.0	1994
44577	A	LONG BEACH CITY, SERRF PROJECT	LONG BEACH	0.4	0	0.0	0.1	2011
115536	A	AES REDONDO BEACH, LLC	REDONDO BEACH	0.4	ND	0.0	0.0	1998
122295	A	FALCON FOAM, A DIV OF ATLAS ROOFING CORP	LOS ANGELES	0.4	ND	0.0	0.0	1999
115663	A	EL SEGUNDO POWER, LLC	EL SEGUNDO	0.3	ND	0.0	0.0	2000
25638	A	BURBANK CITY, PUB SERV DEPT	BURBANK	0.3	ND	0.3	0.0	1996
124805	A	EXIDE TECHNOLOGIES	COMMERCE	0.3	ND	0.0	0.0	2000
112192	OB	CONSOLIDATED DRUM RECONDITIONING CO INC	SOUTH GATE	0.3	ND	0.0	0.0	1997
550	A	LA CO., INTERNAL SERVICE DEPT	LOS ANGELES	0.3	ND	0.0	0.0	2008
800343	A	BOEING SATELLITE SYSTEMS, INC	EL SEGUNDO	0.3	ND	0.0	0.2	1996
24520	A	LA CO, SANITATION DISTRICTS	ROLLING HILLS ESTATE	0.3	ND	0.0	0.0	1998
99119	A	INTERPLASTIC CORP	HAWTHORNE	0.3	ND	0.1	0.3	1999
122300	A	BASF CORPORATION	COLTON	0.3	ND	0.6	0.0	2002
19989	OB	PARKER HANNIFIN AEROSPACE CORP	IRVINE	0.3	ND	0.0	0.0	1999
107149	A	MARKLAND MANUFACTURING INC	SANTA ANA	0.3	ND	0.1	0.1	2007
161142	A	FOAMEX INNOVATIONS, INC.	COMPTON	0.3	0	0.0	0.0	2010
16264	A	INTL COATINGS CO INC	CERRITOS	0.2	ND	0.0	0.0	1999
800074	A	LA CITY, DWP HAYNES GENERATING STATION	LONG BEACH	0.2	ND	0.0	0.0	2000
48300	A	PRECISION TUBE BENDING	SANTA FE SPRINGS	0.2	ND	0.0	0.0	2002
800168	A	PASADENA CITY, DWP (EIS USE)	PASADENA	0.2	ND	0.7	0.0	1996
800193	A	LA CITY, DWP VALLEY GENERATING STATION	SUN VALLEY	0.2	ND	0.3	0.0	1999
37336	A	COMMERCE REFUSE TO ENERGY FACILITY	COMMERCE	0.1	0	0.0	0.0	2010
42676	A	AES PLACERITA INC	NEWHALL	0.1	ND	0.1	0.0	2003
114801	A	RHODIA INC.	LONG BEACH	0.1	ND	0.0	0.1	2006
115389	A	AES HUNTINGTON BEACH, LLC	HUNTINGTON BEACH	0.1	ND	0.0	0.0	1999
7416	A	PRAXAIR INC	WILMINGTON	0.1	ND	0.0	0.0	2001
1992	A	PRUDENTIAL OVERALL SUPPLY	VAN NUYS	0.1	ND	0.0	0.0	1997
16044	I	SPECIALTY ORGANICS, INC.	IRWINDALE	0.1	ND	0.0	0.2	1997
24812	A	FARMER BROS CO	TORRANCE	0.1	ND	0.0	0.0	1999
25012	A	AMADA MFG AMERICA, INC	LA MIRADA	0.1	ND	0.0	0.0	2002
94872	A	METAL CONTAINER CORP	MIRA LOMA	0.1	ND	0.4	0.4	2002

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111110	A	BRISTOL FIBERLITE INDUSTRIES, INC	SANTA ANA	0.1	ND	0.0	0.0	1995
24118	A	DEVOE COATINGS CO	RIVERSIDE	0.1	ND	0.3	0.1	1999
156741	A	HARBOR COGENERATION CO	WILMINGTON	0.1	ND	0.0	0.0	2002
20144	OB	CANON BUSINESS MACHINES INC	COSTA MESA	0.0	ND	0.0	0.1	1999
800320	A	AMVAC CHEMICAL CORP	LOS ANGELES	0.0	ND	0.1	0.3	2004
14217	OB	MODERN FAUCET MFG COMPANY	LOS ANGELES	0.0	ND	0.0	0.5	1996
45938	A	E.M.E. INC/ELECTRO MACHINE & ENGINEERING	COMPTON	0.0	ND	0.0	0.0	1999
117785	A	BALL METAL BEVERAGE CONTAINER CORP.	TORRANCE	0.0	ND	0.2	0.9	2001
22229	A	PROCESSES BY MARTIN INC	LYNWOOD	0.0	ND	0.0	0.0	2002
800075	A	LA CITY, DWP SCATTERGOOD GENERATING STA	PLAYA DEL REY	0.0	ND	0.0	0.0	2000
160150	A	ERGON ASPHALT & EMULSIONS, INC.	FONTANA	0.0	ND	0.3	0.0	1999
115586	A	SUNDANCE SPAS, INC	CHINO	0.0	ND	0.0	0.4	1996
51620	A	WHEELABRATOR NORWALK ENERGY CO INC	NORWALK	0.0	ND	0.0	0.0	1996
61743	A	AMERON STEEL FABRICATION DIVISION	FONTANA	0.0	ND	0.2	0.2	2000
55711	A	SUNLAW COGENERATION PARTNERS I	VERNON	0.0	ND	0.0	0.0	1996
124016	A	OAKLITE PRODUCTS (BRENT AMERICA, INC./ LEEDER ARDOX)	LA MIRADA	0.0	ND	0.1	0.1	2000
55714	A	SUNLAW COGENERATION PARTNERS I	VERNON	0.0	ND	0.0	0.0	1996
119127	A	PRC-DE SOTO INTERNATIONAL	GLENDALE	0.0	ND	0.0	0.0	2000
809	A	GARNER GLASS CO	CLAREMONT	0.0	ND	0.0	0.0	1996
1732	OB	INTL ELECTRONIC RESEARCH CORP	BURBANK	0.0	ND	0.0	0.0	1996
1746	A	UNITED ALLOYS INC	LOS ANGELES	0.0	ND	0.0	0.0	1998
3084	A	CARDINAL INDUSTRIAL FINISHES INC	SOUTH EL MONTE	0.0	ND	0.0	0.0	1996
3100	A	BAXTER HEALTHCARE CORP, I V SYSTEMS	IRVINE	0.0	ND	0.0	0.4	1994
3578	A	PRUDENTIAL OVERALL SUPPLY	CARSON	0.0	ND	0.0	0.0	1995
4616	OB	SUPERIOR IND INTL INC	VAN NUYS	0.0	ND	0.0	0.4	1997
5125	OB	UTILITY TRAILER MFG CO	INDUSTRY	0.0	ND	0.0	0.3	1996
5645	OB	STANDARD NICKEL CHROMIUM PLATING CO INC	LOS ANGELES	0.0	ND	0.0	0.0	1999
6163	A	OHLINE	GARDENA	0.0	ND	0.3	0.7	1996
6315	A	FLO-KEM, INC.	RANCHO DOMINGUEZ	0.0	ND	0.0	0.6	1999
6362	OB	JACUZZI WHIRLPOOL BATH INC	SANTA ANA	0.0	ND	0.0	0.0	1995
7010	A	PRUDENTIAL OVERALL SUPPLY	IRVINE	0.0	ND	0.0	0.0	1995
8560	A	PRUDENTIAL OVERALL SUPPLY CO	COMMERCE	0.0	ND	0.2	0.4	1995

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8935	A	TRAIL RITE INC	SANTA ANA	0.0	ND	0.0	0.3	1996
10656	A	NEWPORT LAMINATES	SANTA ANA	0.0	ND	0.0	0.0	1996
12493	A	REMO INC	NORTH HOLLYWOOD	0.0	ND	0.0	0.0	1997
12879	OB	CYTEC ENGINEERED MATERIALS, INC	SAUGUS	0.0	ND	0.0	0.0	1994
14191	I	NIKLOR CHEMICAL COMPANY INC	CARSON	0.0	ND	0.0	0.0	2002
19953	OB	RISTON KELLER INC	IRVINE	0.0	ND	0.0	0.0	1996
21544	A	US GOVT, MARINE CORPS AIR STA @BLD	Tustin	0.0	ND	0.0	0.0	2000
22092	A	WESTERN TUBE & CONDUIT CORP	LONG BEACH	0.0	ND	0.0	0.6	1997
24647	A	J. B. I. INC	COMPTON	0.0	ND	0.0	0.2	1999
40806	A	NEW BASIS	RIVERSIDE	0.0	ND	0.7	0.2	1997
47459	OB	JACUZZI WHIRLPOOL BATH	IRVINE	0.0	ND	0.0	0.0	1995
51849	A	ELIMINATOR CUSTOM BOATS	MIRA LOMA	0.0	ND	0.0	0.0	1995
61209	OB	AKZO NOBEL CHEM INC, FILTROL CORP SUB OF	LOS ANGELES	0.0	ND	0.0	0.0	1996
70021	A	XERXES CORP (A DELAWARE CORP)	ANAHEIM	0.0	ND	0.0	0.0	1996
132343	A	SPECTRUM PAINT & POWDER, INC.	ANAHEIM	0.0	ND	0.2	0.7	1997
144677	A	PRATT & WHITNEY ROCKETDYNE/RUBY ACQ ENT	CANOGA PARK	0.0	ND	0.0	0.0	1996
149241	A	REGAL CULTURED MARBLE	POMONA	0.0	ND	0.0	0.2	1995
160916	A	FOAMEX INNOVATIONS, INC.	ORANGE	0.0	ND	0.4	0.4	1994
800087	A	MENASCO MFG CO (EIS USE)	BURBANK	0.0	ND	0.0	0.0	1997
800273	OB	CHEMOIL REF CORP (NSR USE ONLY)	SIGNAL HILL	0.0	ND	0.0	0.0	2000
800337	OB	CHEVRON U.S.A., INC (NSR USE)	LA HABRA	0.0	ND	0.0	0.0	1996

Notes:

(a) A = Active (note that facilities with "Active" status within SCAQMD's database might not be in operation currently); I = Inactive; OB = Out of Business

(b) The specific risk driver listed in this HRA is no longer in use & the resulting risk has been eliminated or minimized.

(c) SCAQMD staff has requested these facilities to update their HRAs.

(d) This includes risk attributable to the emergency DICE. The total facility risks excluding the emergency DICE are less than 10 in a million.

(e) All HRAs with HRA Approval Year dated 2015 and later have used the 2015 OEHHA HRA Guidelines for preparation of their HRA.

(f) ND = Not Determined

Table A-2

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
550	A	LA CO., INTERNAL SERVICE DEPT	LOS ANGELES	0.3	ND	0.0	0.0	2008
772	A	DEFT INC	IRVINE	0.7	ND	0.0	0.0	1995
809	A	GARNER GLASS CO	CLAREMONT	0.0	ND	0.0	0.0	1996
1208	OB	MICROSEMI CORP	SANTA ANA	2.3	ND	0.0	0.0	2001
1226	A	HYATT DIE CAST & ENGINEERING CORP	CYPRESS	6.2	ND	0.0	0.1	1996
1634	OB	STEELCASE INC, WESTERN DIV	TUSTIN	0.5	ND	0.0	0.0	1995
1732	OB	INTL ELECTRONIC RESEARCH CORP	BURBANK	0.0	ND	0.0	0.0	1996
1744	A	KIRKHILL RUBBER CO	BREA	8.7	0.001	0.2	0.1	2007
1746	A	UNITED ALLOYS INC	LOS ANGELES	0.0	ND	0.0	0.0	1998
1992	A	PRUDENTIAL OVERALL SUPPLY	VAN NUYS	0.1	ND	0.0	0.0	1997
2526	A	CHEVRON PRODUCTS CO	VAN NUYS	1.3	ND	0.0	0.0	1996
2605	A	3M PHARMACEUTICALS	NORTHRIDGE	2.0	ND	0.4	0.4	1996
2613	A	US GOVT, NAVY DEPT,NAVAL WEAPONS STN	SEAL BEACH	2.9	ND	0.1	0.0	2002
2638	A	OCCIDENTAL COLLEGE	LOS ANGELES	1.5	ND	0.1	0.0	2007
2680	A	LA CO., SANITATION DISTRICT	WHITTIER	8.6	ND	0.0	0.0	1999
2852	A	THE WALT DISNEY COMPANY	BURBANK	6.4	0.03	0.0	0.0	1997
3084	A	CARDINAL INDUSTRIAL FINISHES INC	SOUTH EL MONTE	0.0	ND	0.0	0.0	1996
3093	A	LA CO., OLIVE VIEW/UCLA MEDICAL CENTER	SYLMAR	0.5	ND	0.0	0.0	1999
3100	A	BAXTER HEALTHCARE CORP, I V SYSTEMS	IRVINE	0.0	ND	0.0	0.4	1994
3134	A	THUMS LONG BEACH CO, UNIT NO.05	SAN PEDRO	0.8	ND	0.0	0.0	1996
3578	A	PRUDENTIAL OVERALL SUPPLY	CARSON	0.0	ND	0.0	0.0	1995
3609	I	AL'S PLATING CO INC	LOS ANGELES	7.8	ND	0.3	0.2	1999
3950	A	CROWN CORK & SEAL CO INC	LA MIRADA	4.6	ND	0.0	0.1	1997
3968	A	TABC, INC	LONG BEACH	1.4	ND	0.1	0.2	1999
4477	A	SO CAL EDISON CO	AVALON	6.3	0.02	0.0	0.0	2012
4616	OB	SUPERIOR IND INTL INC	VAN NUYS	0.0	ND	0.0	0.4	1997
5125	OB	UTILITY TRAILER MFG CO	INDUSTRY	0.0	ND	0.0	0.3	1996
5177	A	ITT GILFILLAN UNIT NO.02	VAN NUYS	0.9	ND	0.1	0.2	1998
5645	OB	STANDARD NICKEL CHROMIUM PLATING CO INC	LOS ANGELES	0.0	ND	0.0	0.0	1999
5723	A	DUCOMMUN AEROSTRUCTURES INC	ORANGE	6.7	ND	0.0	0.1	1999

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
5887	A	NEXGEN PHARMA INC	IRVINE	2.7	ND	0.0	0.0	1997
6163	A	OHLINE	GARDENA	0.0	ND	0.3	0.7	1996
6281	A	US GOVT,MARINE CORPS AIR STATION,EL TORO	SANTA ANA	0.5	ND	0.0	0.0	1996
6315	A	FLO-KEM, INC.	RANCHO DOMINGUE	0.0	ND	0.0	0.6	1999
6362	OB	JACUZZI WHIRLPOOL BATH INC	SANTA ANA	0.0	ND	0.0	0.0	1995
6384	A	LA CO., RANCHO LOS AMIGOS MEDICAL CENTER	DOWNEY	3.1	ND	0.0	0.1	1999
6459	OB	HONEYWELL INTERNATIONAL INC	VERNON	4.1	ND	0.0	0.0	1999
6643	A	TECHNICOLOR INC	NORTH HOLLYWOO	6.5	ND	0.0	0.1	2007
6670	A	TRU CUT INC	LOS ANGELES	< 1	ND	0.0	0.0	2002
7010	A	PRUDENTIAL OVERALL SUPPLY	IRVINE	0.0	ND	0.0	0.0	1995
7416	A	PRAXAIR INC	WILMINGTON	0.1	ND	0.0	0.0	2001
7427	A	OWENS-BROCKWAY GLASS CONTAINER INC	VERNON	3.6	ND	0.0	0.1	1999
7533	A	HUGO NEU-PROLER CO	TERMINAL ISLAND	4.1	ND	1.3	0.1	2003
7730	A	CARPENTER CO	RIVERSIDE	0.96	ND	0.03	1.34	2003
7949	A	CUSTOM FIBERGLASS MFG CO/CUSTOM HARDTOP	LONG BEACH	2.5	ND	0.0	0.0	1995
8015	A	ANADITE INC	SOUTH GATE	3.5	ND	0.63	0.78	1998
8309	A	CAMBRO MANUFACTURING CO	HUNTINGTO N BEACH	1.7	ND	0.0	0.1	2000
8547	A	QUEMETCO INC (c)	INDUSTRY	7.1	0.45	0.09	0.69	2016
8560	A	PRUDENTIAL OVERALL SUPPLY CO	COMMERCE	0.0	ND	0.2	0.4	1995
8578	OB	ASSOCIATED CONCRETE PROD. INC	SANTA ANA	5.8	ND	0.1	0.6	1999
8820	A	REULAND ELECTRIC CO, H.BRITTON LEES	INDUSTRY	3.7	ND	0.0	0.0	1996
8935	A	TRAIL RITE INC	SANTA ANA	0.0	ND	0.0	0.3	1996
9114	I	SOMITEX PRINTS OF CAL INC	INDUSTRY	3.7	ND	0.1	0.0	1996
9163	A	INLAND EMPIRE UTL AGEN, A MUN WATER DIS	ONTARIO	3.4	ND	0.3	0.0	2007
9668	A	DELUXE LABORATORIES INC,DELUXE LABORATOR	HOLLYWOOD	2.1	ND	0.0	0.0	2000
10005	A	ELECTRONIC CHROME GRINDING CO INC	SANTA FE SPRINGS	3.0	0.01	0.2	0.1	2001
10245	A	LA CITY,SANITATION BUREAU,TERMINAL ISLAN	SAN PEDRO	1.8	ND	0.0	0.0	2000
10510	A	GREGG INDUSTRIES INC	EL MONTE	9.4	ND	0.6	0.6	2008
10656	A	NEWPORT LAMINATES	SANTA ANA	0.0	ND	0.0	0.0	1996
11142	OB	KEYSOR-CENTURY CORP	SAUGUS	17.0	ND	0.5	0.1	2000
11192	A	HI-SHEAR CORPORATION	TORRANCE	4.8	ND	0.0	0.0	2008

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
11435	A	THE PQ CORP	SOUTH GATE	3.0	ND	0.0	0.0	1998
11726	A	GE ENGINE SERVICES	ONTARIO	6.5	ND	0.1	0.6	1999
11818	A	HIXSON METAL FINISHING	NEWPORT BEACH	0.8	ND	0.04	0.006	2015
12493	A	REMO INC	NORTH HOLLYWOO	0.0	ND	0.0	0.0	1997
12660	I	GOLDSHIELD FIBERGLASS, INC, PLANT #58	FONTANA	0.4	ND	0.0	0.0	1994
12879	OB	CYTEC ENGINEERED MATERIALS, INC	SAUGUS	0.0	ND	0.0	0.0	1994
13920	A	ST. JOSPEH HOSPITAL	ORANGE	7.7	0.004	0.8	0.3	2008
14146	A	MAC GREGOR YACHT CORP	COSTA MESA	5.5	ND	0.0	0.1	1998
14191	I	NIKLOR CHEMICAL COMPANY INC	CARSON	0.0	ND	0.0	0.0	2002
14217	OB	MODERN FAUCET MFG COMPANY	LOS ANGELES	0.0	ND	0.0	0.5	1996
14495	A	VISTA METALS CORP	FONTANA	19.8	0.06	0.0	0.3	2008
14502	A	VERNON CITY, LIGHT & POWER DEPT	VERNON	2.0	0.0004	0.0	0.0	2007
14544	OB	SANTA FE ENAMELING & METAL FINISHING CO	SANTA FE SPRINGS	0.8	ND	0.0	0.4	1999
15504	A	SCHLOSSER FORGE CO	RANCHO CUCAMONGA	9.5	0.067	1.59	1.11	2002
15647	A	CUSTOM ENAMELERS INC	FOUNTAIN VALLEY	0.6	ND	0.1	0.0	2000
15736	A	HENRY CO	HUNTINGTON PARK	8.5	ND	0.0	0.0	2000
16044	I	SPECIALTY ORGANICS, INC.	IRWINDALE	0.1	ND	0.0	0.2	1997
16264	A	INTL COATINGS CO INC	CERRITOS	0.2	ND	0.0	0.0	1999
16642	A	ANHEUSER-BUSCH INC., (LA BREWERY)	VAN NUYS	2.7	ND	0.0	0.1	1999
16660	A	THE BOEING COMPANY	HUNTINGTO N BEACH	6.39	0.02	0.01	0.08	2015
17301	A	ORANGE, COUNTY OF - SANITATION DISTRICT	FOUNTAIN VALLEY	6.6	0.001	0.4	0.3	2007
17325	A	ACE CLEARWATER ENTER.	PARAMOUNT	3.7	ND	0.0	0.0	2002
18294	A	NORTHROP GRUMMAN CORP, AIRCRAFT DIV	EL SEGUNDO	7.6	ND	0.13	0.05	1999
18378	A	GRUBER SYS INC	VALENCIA	0.8	ND	0.1	0.1	2004
18396	A	SPRAYLAT CORP	LOS ANGELES	3.2	0	0.7	0.0	2012
18439	OB	ACE PLATING CO INC	LOS ANGELES	4.1	ND	0.6	0.2	1998
18452	A	UCLA (REGENTS OF UC) (c)	LOS ANGELES	2.9	ND	0.0	0.1	1999
18508	A	AIR PROD & CHEM INC	LOS ANGELES	2.4	ND	0.1	0.8	1999
18648	OB	CROWN CITY PLATING CO.	EL MONTE	12.0	ND	0.4	0.1	2000
18931	A	GERDAU	RANCHO CUCAMONGA	8.7	0.25	0.49	0.61	2015
18989	A	BOWMAN PLATING CO INC	COMPTON	5.01	0.00102	0.0141	0.0115	2015

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
18990	A	LIFE PAINT CO	SANTA FE SPRINGS	0.4	ND	0.0	0.0	2001
19953	OB	RISTON KELLER INC	IRVINE	0.0	ND	0.0	0.0	1996
19989	OB	PARKER HANNIFIN AEROSPACE CORP	IRVINE	0.3	ND	0.0	0.0	1999
20144	OB	CANON BUSINESS MACHINES INC	COSTA MESA	0.0	ND	0.0	0.1	1999
20197	A	LAC/USC MEDICAL CENTER	LOS ANGELES	7.5	ND	0.7	0.4	2007
20280	A	METAL SURFACES INC	BELL GARDENS	6.8	0	0.9	0.3	2011
20375	A	PRUDENTIAL OVERALL SUPPLY	RIVERSIDE	1.0	ND	0.0	0.1	1997
21544	A	US GOVT, MARINE CORPS AIR STA @BLD	Tustin	0.0	ND	0.0	0.0	2000
21615	OB	PERKINELMER OPTOELECTRONICS SC, INC	AZUSA	8.1	ND	0.2	0.1	1998
21895	A	AC PRODUCTS INC	PLACENTIA	0.5	ND	0.0	0.0	2003
22092	A	WESTERN TUBE & CONDUIT CORP	LONG BEACH	0.0	ND	0.0	0.6	1997
22229	A	PROCESSES BY MARTIN INC	LYNWOOD	0.0	ND	0.0	0.0	2002
22373	A	JEFFERSON SMURFIT CORPORATION (U.S.)	LOS ANGELES	0.7	ND	0.0	0.0	1996
22410	A	PALACE PLATING	LOS ANGELES	5.6	ND	0.73	0.38	2004
22467	A	LEFIELL MFG CO	SANTA FE SPRINGS	1.7	ND	0.7	0.2	2000
22551	A	THUMS LONG BEACH CO	SAN PEDRO	1.2	ND	0.0	0.0	2000
22556	A	THUMS LONG BEACH CO, UNIT NO.02	SAN PEDRO	0.8	ND	0.0	0.0	1996
22808	I	PRICE PFISTER INC	PACOIMA	0.9	ND	0.2	0.1	1996
22911	A	CARLTON FORGE WORKS	PARAMOUNT	15.4	ND	1.76	1.04	2006
23559	OB	JOHNSON CONTROLS BATTERY GROUP INC	FULLERTON	1.8	ND	0.0	0.1	2001
23907	A	JOHNS MANVILLE CORP	CORONA	13.0	ND	0.4	2.7	1999
24060	A	TOMKINS INDUSTRIES INC-LASCO PRODS GROUP	ANAHEIM	0.7	ND	0.0	0.0	1996
24118	A	DEVOE COATINGS CO	RIVERSIDE	0.1	ND	0.3	0.1	1999
24520	A	LA CO, SANITATION DISTRICTS	ROLLING HILLS ESTATE	0.3	ND	0.0	0.0	1998
24647	A	J. B. I. INC	COMPTON	0.0	ND	0.0	0.2	1999
24756	A	CRANE CO, HYDRO-AIRE DIV	BURBANK	0.6	ND	0.0	0.1	1997
24812	A	FARMER BROS CO	TORRANCE	0.1	ND	0.0	0.0	1999
25012	A	AMADA MFG AMERICA, INC	LA MIRADA	0.1	ND	0.0	0.0	2002
25070	A	LA CO., SANITATION DISTRICT (c)	WHITTIER	1.5	0.003	0.3	0.1	2009
25440	A	ROBERTSHAW CONTROLS CO, GRAYSON CONTROLS	LONG BEACH	2.7	ND	0.0	1.0	1998
25638	A	BURBANK CITY, PUB SERV DEPT	BURBANK	0.3	ND	0.3	0.0	1996
27343	OB	CON AGRA INC, GILROY FOODS DBA	SANTA ANA	7.1	ND	0.2	0.1	1995

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

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27701	A	CADDOCK ELECTRONIC	RIVERSIDE	2.7	ND	0.0	0.1	2002
29110	A	ORANGE, COUNTYOF - SANITATION DISTRICT (d)	HUNTINGTO N BEACH	10.7	ND	1.8	0.5	2007
34764	A	CADDOCK ELECTRONICS INC	RIVERSIDE	6.5	ND	0.0	0.1	2002
35302	A	OWENS CORNING (c)	COMPTON	14.0	0.02	0.1	0.1	2000
35483	A	WARNER BROTHERS STUDIO FACILITIES	BURBANK	2.6	ND	0.1	0.3	1997
37336	A	COMMERCE REFUSE TO ENERGY FACILITY	COMMERCE	0.1	0	0.0	0.0	2010
37507	A	TROJAN BATTERY COMPANY	SANTA FE SPRINGS	2.6	0.001	1.1	1.3	2012
37603	A	SGL TECHNIC INC, POLYCARBON DIVISION	VALENCIA	7.8	ND	0.0	0.4	1998
38971	A	RICOH ELECTRONICS INC	IRVINE	5.6	ND	0.0	0.4	1995
39388	A	THUMS LONG BEACH CO, UNIT NO.03	SAN PEDRO	0.5	ND	0.0	0.0	1996
40806	A	NEW BASIS	RIVERSIDE	0.0	ND	0.7	0.2	1997
40829	A	HAWKER PACIFIC INC	SUN VALLEY	2.1	0.0003	0.0	0.1	2009
41229	A	LUBECO INC	LONG BEACH	14.0	ND	0.0	0.1	2002
42514	A	LA CO.,SANITATION DIST,CALABASAS LNDFILL	AGOURA	1.1	0	0.1	0.0	2010
42633	A	LA CO., SANITATION DIST	POMONA	1.2	ND	0.0	0.0	1996
42676	A	AES PLACERITA INC	NEWHALL	0.1	ND	0.1	0.0	2003
42922	OB	CMC PRINTED BAG INC	WHITTIER	9.0	ND	0.0	0.0	1995
43201	A	SNOW SUMMIT INC	BIG BEAR LAKE	5.5	ND	0.2	0.0	2007
43436	A	TST, INC.	FONTANA	0.4	0.11	0.0	0.4	1997
44454	A	STRUCTURAL COMPOSITES IND	POMONA	8.6	0.001	0.0	0.2	2002
44577	A	LONG BEACH CITY, SERRF PROJECT	LONG BEACH	0.4	0	0.0	0.1	2011
45262	A	LA CO, SANITATION DISTRICT UNIT NO.02	GLENDALE	6.2	ND	0.0	0.1	1998
45489	A	ABBOTT CARDIOVASCULAR SYSTEMS, INC.	TEMECULA	3.8	0.01	1.3	0.0	2002
45938	A	E.M.E. INC/ELECTRO MACHINE & ENGINEERING	COMPTON	0.0	ND	0.0	0.0	1999
46268	A	CALIFORNIA STEEL INDUSTRIES INC	FONTANA	2.7	0.02	0.2	0.0	1995
47056	OB	MYERS CONTAINER CORP, IMACC CORP DIV	HUNTINGTON PARK	0.9	ND	0.2	2.0	2002
47459	OB	JACUZZI WHIRLPOOL BATH	IRVINE	0.0	ND	0.0	0.0	1995
48274	A	FENDER MUSICAL INST	CORONA	2.8	ND	0.0	0.4	1997
48300	A	PRECISION TUBE BENDING	SANTA FE SPRINGS	0.2	ND	0.0	0.0	2002
48323	A	SIGMA PLATING CO INC	LA PUENTE	13.8	0.017	0.01	0.74	2001
49387	A	UNIV CAL, RIVERSIDE	RIVERSIDE	7.1	ND	0.0	0.0	1999
51620	A	WHEELABRATOR NORWALK ENERGY CO INC	NORWALK	0.0	ND	0.0	0.0	1996

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51849	A	ELIMINATOR CUSTOM BOATS	MIRA LOMA	0.0	ND	0.0	0.0	1995
52517	A	REXAM PLC, REXAM BEVERAGE CAN COMPANY	CHATSWORTH	2.9	0.01	0.7	0.1	2009
54424	A	L & L CUSTOM SHUTTERS	PLACENTIA	5.5	ND	0.2	0.2	2001
54627	A	HICKORY SPRINGS OF CAL INC	COMMERCE	2.0	ND	0.0	0.5	1998
55711	A	SUNLAW COGENERATION PARTNERS I	VERNON	0.0	ND	0.0	0.0	1996
55714	A	SUNLAW COGENERATION PARTNERS I	VERNON	0.0	ND	0.0	0.0	1996
57094	A	GS ROOFING PRODUCTS CO, INC/CERTAINTEED (c)	WILMINGTON	7.0	ND	0.0	0.0	2000
57329	OB	KWIKSET CORP	ANAHEIM	3.4	ND	0.0	0.1	2000
61160	A	GE ENGINE SERVICES	ONTARIO	0.5	ND	0.7	0.01	2003
61209	OB	AKZO NOBEL CHEM INC, FILTROL CORP SUB OF	LOS ANGELES	0.0	ND	0.0	0.0	1996
61743	A	AMERON STEEL FABRICATION DIVISION	FONTANA	0.0	ND	0.2	0.2	2000
62679	A	KOP-COAT INC	VERNON	1.3	ND	0.0	0.5	1997
62897	OB	NORTHROP GRUMMAN CORP, MASD	PICO RIVERA	9.4	ND	1.0	0.5	2000
65381	A	SFPP, L.P. (NSR USE)	CARSON	2.4	ND	0.0	0.1	1999
65382	A	SFPP, L.P.	BLOOMINGTON	5.8	ND	0.0	0.0	1996
70021	A	XERXES CORP (A DELAWARE CORP)	ANAHEIM	0.0	ND	0.0	0.0	1996
79682	A	RAMCAR BATTERIES INC	COMMERCE	2.4	1	0.0	0.2	1998
82512	A	BREA CANON OIL CO	WILMINGTON	1.7	ND	0.0	0.0	1996
82513	A	BREA CANON OIL COMPANY INC	HARBOR CITY	1.4	ND	0.0	0.0	1996
83102	A	LIGHT METALS INC	INDUSTRY	4.5	0.01	0.0	2.7	2002
90546	OB	SORIN BIOMEDICAL INC	IRVINE	2.3	ND	0.0	0.0	1996
93346	A	WAYMIRE DRUM CO,INC.,S EL MONTE FACILITY	SOUTH EL MONTE	4.3	ND	0.1	0.2	1997
94872	A	METAL CONTAINER CORP	MIRA LOMA	0.1	ND	0.4	0.4	2002
99119	A	INTERPLASTIC CORP	HAWTHORNE	0.3	ND	0.1	0.3	1999
99773	A	CYTEC FIBERITE INC	ANAHEIM	2.2	0.0004	0.0	0.2	2000
101380	OB	GENERAL DYNAMICS OTS (DOWNEY) INC	DOWNEY	9.8	ND	0.0	0.1	2000
101977	A	SIGNAL HILL PETROLEUM INC	LONG BEACH	4.7	ND	0.6	1.0	1998
103659	OB	4MC-BURBANK, INC.	BURBANK	2.2	ND	0.6	0.0	2004
103888	A	SARGENT FLETCHER INC	EL MONTE	4.9	ND	0.2	0.0	1999
105598	A	SENIOR FLEXONICS INC/STAINLESS STEEL DVN	BURBANK	3.6	ND	1.0	0.5	2001
106009	A	VENOCO INC.	BEVERLY HILLS	1.2	ND	0.0	0.0	2005
106797	OB	SAINT-GOBAIN CONTAINERS LLC	LOS ANGELES	9.9	ND	0.0	0.1	2000

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
106838	A	VALLEY-TODECO, INC	SYLMAR	3.7	ND	0.2	0.2	2000
107149	A	MARKLAND MANUFACTURING INC	SANTA ANA	0.3	ND	0.1	0.1	2007
107168	I	ADVANCED SPA DESIGNS	LA HABRA	8.6	ND	0.0	0.0	1995
107350	A	NATIONAL O-RINGS	DOWNEY	1.5	ND	0.0	0.0	2001
108701	A	SAINT-GOBAIN CONTAINERS LLC	EL MONTE	7.3	ND	0.1	0.1	2000
109198	A	TORCH OPERATING COMPANY	BREA	5.0	ND	0.0	0.0	2001
110924	A	WESTWAY TERMINAL COMPANY	SAN PEDRO	8.0	ND	0.3	0.5	1997
111110	A	BRISTOL FIBERLITE INDUSTRIES, INC	SANTA ANA	0.1	ND	0.0	0.0	1995
111415	A	VAN CAN COMPANY	FONTANA	0.8	ND	0.0	0.1	1996
112192	OB	CONSOLIDATED DRUM RECONDITIONING CO INC	SOUTH GATE	0.3	ND	0.0	0.0	1997
113170	A	SANTA MONICA - UCLA MEDICAL CENTER (b)	SANTA MONICA	7.6	0.14	0.2	0.0	1997
113676	A	VICKERS	LOS ANGELES	3.0	ND	0.0	0.0	1995
114801	A	RHODIA INC.	LONG BEACH	0.1	ND	0.0	0.1	2006
115389	A	AES HUNTINGTON BEACH, LLC	HUNTINGTO N BEACH	0.1	ND	0.0	0.0	1999
115394	A	AES ALAMITOS, LLC	LONG BEACH	0.6	ND	0.0	0.0	1999
115536	A	AES REDONDO BEACH, LLC	REDONDO BEACH	0.4	ND	0.0	0.0	1998
115586	A	SUNDANCE SPAS, INC	CHINO	0.0	ND	0.0	0.4	1996
115663	A	EL SEGUNDO POWER, LLC	EL SEGUNDO	0.3	ND	0.0	0.0	2000
116868	A	EQUILON ENT LLC/RIALTO TERMINAL	BLOOMINGTON	2.9	ND	0.0	0.0	1999
117560	A	EQUILON ENTER, LLC-SHELL OIL PROD. US	WILMINGTON	7.3	ND	0.0	0.1	1998
117785	A	BALL METAL BEVERAGE CONTAINER CORP.	TORRANCE	0.0	ND	0.2	0.9	2001
118406	A	CARSON COGENERATION COMPANY	CARSON	0.8	ND	0.2	0.0	2007
118998	OB	CYTEC FIBERITE INC	CULVER CITY	6.6	ND	0.0	0.2	1997
119127	A	PRC-DE SOTO INTERNATIONAL	GLENDALE	0.0	ND	0.0	0.0	2000
119907	A	BERRY PETROLEUM COMPANY	SANTA CLARITA	1.6	ND	0.2	0.7	1999
119920	A	PECHINEY CAST PLATE INC	VERNON	1.6	ND	0.3	0.3	1996
120088	A	BREITBURN ENERGY COMPANY, LLC	SANTA FE SPRINGS	0.8	ND	0.0	0.0	1998
122295	A	FALCON FOAM, A DIV OF ATLAS ROOFING CORP	LOS ANGELES	0.4	ND	0.0	0.0	1999
122300	A	BASF CORPORATION	COLTON	0.3	ND	0.6	0.0	2002
122822	I	CONSOLIDATED FILM INDUSTRIES	HOLLYWOOD	21.0	ND	0.1	0.4	2000
124016	A	OAKLITE PRODUCTS (BRENT AMERICA, INC./ LEEDER ARDOX)	LA MIRADA	0.0	ND	0.1	0.1	2000
124506	A	BOEING ELECTRON DYNAMIC DEVICES INC	TORRANCE	4.2	ND	0.5	0.1	1995

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
124805	A	EXIDE TECHNOLOGIES	COMMERCE	0.3	ND	0.0	0.0	2000
124806	OB	EXIDE TECHNOLOGIES	INDUSTRY	1.0	ND	0.0	0.0	1999
124838	OB	EXIDE TECHNOLOGIES	LOS ANGELES	0	ND	0	0	2013
125281	OB	MODERN PLATING, ALCO CAD-NICKEL PLATING	LOS ANGELES	8.2	ND	0.1	0.0	1995
126060	A	STERIGENICS US, LLC	ONTARIO	3.8	0	0.0	0.0	2007
126191	A	STERIGENICS US, INC.	LOS ANGELES	3.3	ND	0.0	0.0	1996
126197	A	STERIGENICS US, INC.	LOS ANGELES	3.6	ND	0.0	0.0	1996
126536	A	CONSOLIDATED FOUNDRIES - POMONA	POMONA	1.5	ND	0.0	0.0	1999
126544	A	PAC FOUNDRIES-INDUSTRY	INDUSTRY	1.3	ND	0.6	0.1	1996
126964	A	EDWARDS LIFESCIENCES LLC	IRVINE	0.8	ND	0.0	0.0	1995
127568	A	ENGINEERED POLYMER SOLUTION, VALSPAR	MONTEBELLO	3.5	ND	0.1	0.5	2000
132343	A	SPECTRUM PAINT & POWDER, INC.	ANAHEIM	0.0	ND	0.2	0.7	1997
132954	A	ALL AMERICAN ASPHALT	SAN FERNANDO	1.6	<0.02	0.4	0.3	2017
133405	A	BODYCOTE INC/BODYCOTE THERMAL PROCESSING	LOS ANGELES	2.4	ND	0.0	0.2	1999
133660	A	HAYDEN INDUSTRIAL PRODUCTS	CORONA	1.6	ND	0.8	0.4	1998
134018	A	INDUSTRIAL CONTAINER SERVICES-CA LLC	MONTEBELLO	5.2	ND	0.6	0.2	2000
134931	A	ALCOA GLOBAL FASTENERS, INC.	FULLERTON	0.6	ND	1.90	0.02	1997
134943	A	ALCOA GLOBAL FASTENERS, INC. SOUTH BAY	TORRANCE	2.6	ND	0.6	0.0	2008
136148	A	E/M COATING SERVICES	NORTH HOLLYWOO	5.8	ND	0.3	0.6	1998
137517	A	PACIFIC TERMINALS LLC	ETIWANDA	2.7	ND	0.0	0.2	2000
140499	A	AMERESCO HUNTINGTON BEACH, L.L.C.	HUNTINGTO N BEACH	7.0	ND	0.0	0.0	1995
140811	A	DUCOMMUN AEROSTRUCTURES INC	MONROVIA	3.5	0.01	0.0	0.0	2002
140961	A	GKN AEROSPACE TRANSPARENCY SYS INC	GARDEN GROVE	6.0	ND	0.0	0.5	1996
142267	A	FS PRECISION TECH LLC	RANCHO DOMINGUE	2.0	ND	0.1	0.2	2001
144677	A	PRATT & WHITNEY ROCKETDYNE/RUBY ACQ ENT	CANOGA PARK	0.0	ND	0.0	0.0	1996
146570	A	ROHM AND HAAS CHEMICALS LLC	LA MIRADA	6.2	ND	0.5	0.8	1999
148925	A	CHERRY AEROSPACE LLC	SANTA ANA	9.7	ND	0.1	0.2	1999
149241	A	REGAL CULTURED MARBLE	POMONA	0.0	ND	0.0	0.2	1995
151415	A	LINN WESTERN OPERATING, INC	BREA	3.4	ND	0.0	0.0	1999
151798	A	TESORO REFINING AND MARKETING CO	CARSON	2.8	ND	0.1	0.0	1999
151899	A	VINTAGE PRODUCTION CALIFORNIA LLC	NEWHALL	3.5	ND	0.0	0.2	2000

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
152054	A	LINN WESTERN OPERATING INC	BREA	1.1	ND	0.0	0.1	1996
152501	A	PRECISION SPECIALTY METALS INC	LOS ANGELES	0.5	ND	0.4	0.2	2001
153546	A	HUCK INTL INC. DBA ALCOA FASTENING SYS.	CARSON	3.3	ND	0.0	0.0	1999
155828	A	GARRETT AVIATION SVCS. LLC DBA STANDARD	LOS ANGELES	9.3	ND	0.19	0.25	2002
156741	A	HARBOR COGENERATION CO	WILMINGTON	0.1	ND	0.0	0.0	2002
157451	A	VERNON MACHINE CORP, BENDER US DBA	VERNON	4.4	0.001	1.0	0.0	2002
160150	A	ERGON ASPHALT & EMULSIONS, INC.	FONTANA	0.0	ND	0.3	0.0	1999
160437	A	SOUTHERN CALIFORNIA EDISON	SAN BERNARDINO	2.3	<0.01	<0.01	<0.01	2013
160916	A	FOAMEX INNOVATIONS, INC.	ORANGE	0.0	ND	0.4	0.4	1994
161142	A	FOAMEX INNOVATIONS, INC.	COMPTON	0.3	0	0.0	0.0	2010
161300	A	SAPA EXTRUDER, INC	INDUSTRY	1.3	ND	0.0	0.0	1999
164864	A	ARROWHEAD BRASS & PLUMBING	LOS ANGELES	5.7	ND	0.3	0.0	1995
165192	A	TRIUMPH AEROSTRUCTURES, LLC (b)	HAWTHORNE	19.7	ND	0.64	0.24	1999
167981	A	TESORO LOGISTICS OPERATIONS LLC	WILMINGTON	2.8	ND	0.0	0.0	2000
168088	A	PCCR USA	LYNWOOD	6.5	ND	0.1	1.6	1995
169990	A	SPS TECHNOLOGIES, LLC	GARDENA	8.9	ND	0.1	0.1	1999
171107	A	PHILLIPS 66 CO/LA REFINERY WILMINGTON PL	WILMINGTON	23.2	0.29	0.1	0.7	2013
171109	A	PHILLIPS 66 COMPANY/LOS ANGELES REFINERY	CARSON	6.6	0.11	0.0	0.3	2011
172878	A	TESORO LOGISTICS OPERATIONS LLC LONG BEA	LONG BEACH	2.4	ND	0.0	0.0	1999
173913	A	TRIUMPH PROCESSING, EMBEE DIV, INC.	SANTA ANA	6.6	ND	0.21	0.58	2000
174591	A	TESORO REFINING & MARKETING CO LLC, CAL (c)	WILMINGTON	4.3	ND	0.1	0.2	1995
174655	A	TESORO REFINING & MARKETING CO, LLC	CARSON	7.3	ND	0.3	0.1	2000
174703	A	TESORO REFINING & MARKETING CO LLC CARSO	CARSON	3.0	ND	0.0	0.0	1994
174710	A	TESORO LOGISTICS OP LLC, VINVALE MARKETI	SOUTH GATE	9.0	ND	0.0	0.0	1994
175124	A	AEROJET ROCKETDYNE OF DE, INC.	CANOGA PARK	8.7	ND	0.0	0.0	1995
175191	A	FREEPORT-MCMORAN OIL & GAS	LOS ANGELES	2.7	ND	0.0	0.1	1997
176967	A	GAS RECOVERY SYSTEMS, INC	IRVINE	20.1	0.18	0.6	0.3	2009
177042	A	SOLVAY USA, INC	LONG BEACH	4.3	ND	0.3	0.0	2001
800003	A	HONEYWELL INTERNATIONAL INC	TORRANCE	1.8	ND	0.0	0.0	1999
800007	OB	ALLIED SIGNAL INC (NSR USE ONLY)	EL SEGUNDO	3.6	ND	0.0	0.5	2000
800022	A	CALNEV PIPE LINE CO (NSR USE)	BLOOMINGTON	5.9	ND	0.0	0.1	1999
800026	A	ULTRAMAR INC (NSR USE ONLY)	WILMINGTON	7.2	0.18	0.7	0.2	2012

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
800030	A	CHEVRON PRODUCTS CO.	EL SEGUNDO	2.7	0.28	0.3	0.1	2001
800032	A	CHEVRON U.S.A. INC (EIS USE)	MONTEBELLO	7.5	0.14	0.0	0.2	1999
800035	A	CONTINENTAL AIRLINES INC (NSR USE ONLY)	LOS ANGELES	2.8	ND	0.0	0.1	1995
800037	A	DEMENNO/KERDOON	COMPTON	4.9	0.01	0.01	0.02	2009
800038	A	THE BOEING COMPANY - C17 PROGRAM	LONG BEACH	4.8	ND	0.2	0.1	1999
800039	I	DOUGLAS PRODUCTS DIVISION	TORRANCE	2.4	ND	0.0	0.0	1996
800041	A	DOW CHEM U.S.A. (NSR USE)	TORRANCE	4.4	ND	0.1	0.0	2000
800047	I	FLETCHER OIL & REF CO	CARSON	5.9	ND	0.0	0.0	1998
800056	A	KINDER MORGAN LIQUIDS TERMINALS, LLC	WILMINGTON	2.3	0.01	0.0	0.0	1997
800057	A	KINDER MORGAN LIQUIDS TERMINALS, LLC	CARSON	8.5	ND	0.0	0.1	1999
800063	A	GROVER PROD. CO (EIS USE)	LOS ANGELES	3.3	0.039	0.88	0.07	2001
800066	A	HITCO CARBON COMPOSITES INC	GARDENA	6.4	ND	0.3	0.0	1995
800067	A	BOEING SATELLITE SYSTEMS INC	EL SEGUNDO	6.2	ND	0.0	0.1	2000
800074	A	LA CITY, DWP HAYNES GENERATING STATION	LONG BEACH	0.2	ND	0.0	0.0	2000
800075	A	LA CITY, DWP SCATTERGOOD GENERATING STA	PLAYA DEL REY	0.0	ND	0.0	0.0	2000
800079	A	PETRO DIAMOND TERMINAL CO	LONG BEACH	8.3	ND	0.0	0.2	1998
800087	A	MENASCO MFG CO (EIS USE)	BURBANK	0.0	ND	0.0	0.0	1997
800089	A	EXXONMOBIL OIL CORPORATION	TORRANCE	7.7	0.15	0.2	0.5	2013
800091	A	MOBIL OIL CORP (NSR USE ONLY)	ANAHEIM	0.7	ND	0.0	0.0	1999
800111	OB	THE BOEING COMPANY	DOWNEY	2.3	ND	0.0	0.1	1996
800113	A	ROHR,INC	RIVERSIDE	7.2	0.01	0.9	0.0	2007
800127	A	SO CAL GAS CO (EIS USE)	MONTEBELLO	1.0	0	0.0	0.0	2009
800149	A	US BORAX INC	WILMINGTON	9.5	ND	0.0	0.0	2000
800150	A	US GOVT, AF DEPT, MARCH AFB (NSR USE)	RIVERSIDE	7.4	0.02	0.3	0.0	2008
800168	A	PASADENA CITY, DWP (EIS USE)	PASADENA	0.2	ND	0.7	0.0	1996
800171	A	EXXONMOBIL OIL CORPORATION	VERNON	5.3	ND	0.1	0.0	1997
800181	A	CALIFORNIA PORTLAND CEMENT CO (c)	COLTON	2.0	ND	0.0	0.4	1996
800182	A	RIVERSIDE CEMENT CO (c)	RIVERSIDE	7.8	0.11	0.1	0.1	2001
800183	A	PARAMOUNT PETR CORP (EIS USE)	PARAMOUNT	9.6	ND	0.0	0.0	2002
800184	A	GOLDEN WEST REF CO	SANTA FE SPRINGS	8.8	ND	0.2	0.1	1997
800189	A	DISNEYLAND RESORT	ANAHEIM	3.3	0.03	0.1	0.1	2009
800193	A	LA CITY, DWP VALLEY GENERATING STATION	SUN VALLEY	0.2	ND	0.3	0.0	1999

Table A-2 (cont'd)

Health Risks from Facilities with an Approved HRA

(Listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden (f)	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Year (e)
800196	A	AMERICAN AIRLINES INC (EIS USE)	LOS ANGELES	5.4	0.190	0.86	0.08	2002
800198	A	ULTRAMAR INC (NSR USE ONLY)	WILMINGTON	5.9	ND	0.0	0.1	1999
800202	A	UNIVERSAL STUDIOS INC (EIS USE)	UNIVERSAL CITY	2.4	ND	0.0	0.0	1996
800204	OB	SIMPSON PAPER CO	POMONA	3.4	ND	0.0	0.0	1996
800209	A	BKK CORPORATION, LANDFILL DIVISION GNRL	WEST COVINA	6.9	ND	0.0	0.1	2000
800214	A	LA CITY, SANITATION BUREAU (c)	PLAYA DEL REY	7.6	ND	0.1	0.0	1999
800236	A	LA CO. SANITATION DIST	CARSON	7.2	ND	0.2	0.1	2007
800264	A	EDGINGTON OIL COMPANY	LONG BEACH	4.8	0.001	0.0	0.0	2002
800267	A	TRIUMPH PROCESSING, INC.	LYNWOOD	0.5	0	0.1	0.4	2012
800273	OB	CHEMOIL REF CORP (NSR USE ONLY)	SIGNAL HILL	0.0	ND	0.0	0.0	2000
800279	A	SFPP, L.P.	ORANGE	5.9	ND	0.0	0.2	1999
800288	A	UNIV CAL IRVINE (NSR USE ONLY)	IRVINE	5.6	ND	0.0	0.1	1996
800318	A	GRISWOLD INDUSTRIES	COSTA MESA	9.5	0.01	0.1	0.0	2001
800320	A	AMVAC CHEMICAL CORP	LOS ANGELES	0.0	ND	0.1	0.3	2004
800325	A	TIDELANDS OIL PRODUCTION CO	LONG BEACH	1.9	ND	0.1	0.6	1999
800327	A	GLENDALE CITY, GLENDALE WATER & POWER	GLENDALE	0.6	ND	0.0	0.0	1999
800337	OB	CHEVRON U.S.A., INC (NSR USE)	LA HABRA	0.0	ND	0.0	0.0	1996
800343	A	BOEING SATELLITE SYSTEMS, INC	EL SEGUNDO	0.3	ND	0.0	0.2	1996
800372	A	EQUILON ENTER. LLC, SHELL OIL PROD. US	CARSON	6.9	ND	0.4	0.1	2001
800373	I	CENCO REFINING COMPANY	SANTA FE SPRINGS	9.7	ND	0.3	0.1	2000
800387	A	CAL INST OF TECH	PASADENA	2.4	ND	0.1	0.0	2007
800408	A	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	MANHATTA N BEACH	1.4	ND	0.9	0.1	1998
800409	A	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	REDONDO BEACH	5.5	ND	0.5	0.2	1998
800436	A	TESORO REFINING AND MARKETING CO	WILMINGTON	10.7	0.37	0.3	0.4	2013

Notes:

a) A = Active (note that facilities with "Active" status within SCAQMD's database might not be in operation currently); I = Inactive; OB = Out of Business
b) The specific risk driver listed in this HRA is no longer in use & the resulting risk has been eliminated or minimized.
c) SCAQMD staff has requested these facilities to update their HRAs.
d) This includes risk attributable to the emergency DICE. The total facility risks excluding the emergency DICE are less than 10 in a million.
e) All HRAs with HRA Approval Year dated 2015 and later have used the 2015 OEHHA HRA Guidelines for preparation of their HRA.
f) ND = Not Determined

Table A-3 – Status of Risk Reduction Plans

Facility ID	Facility Name	Submitted	Approved	Implemented	Residual Risk			
					Cancer Risk	Chronic HI	Acute HI	Cancer Burden
7427	Owens-Brockway Glass	Yes	Yes	Yes	3.60	0.01	0.06	0.000
7730	E.R. Carpenter	Yes	Yes	Yes	0.96	0.03	1.34	0.000
8015	Anadite Inc.	Yes	Yes	Yes	3.5	0.63	0.78	N/A
8547	Quemetco	Yes	Yes	Yes	7.1	0.09	0.69	0.45
11818	Hixson Metal Finishing	Yes	Yes	No	0.8	0.04	0.006	N/A
14191	Nicklor Chemical Co. **(a)**	Yes	Yes	Yes	N/A	N/A	N/A	N/A
15504	Schlosser Forge Co.	Yes	Yes	Yes	9.5	1.59	1.11	0.067
16951	Anaplex Corp	Yes	In Progress	In Progress	TBD	TBD	TBD	TBD
18294	Northrop-Grumman	Yes	Yes	Yes	7.6	0.13	0.05	N/A
18931	Gerdau	Yes	Yes	In Progress	8.7	0.49	0.61	0.25
18989	Bowman Plating Co. Inc.	Yes	Yes	In Progress	5.01	0.0141	0.0115	0.00102
22410	Palace Plating **(b)**	Yes	Yes	Yes	5.6	0.73	0.38	N/A
23752	Aerocraft Heat Treating Co Inc	Yes	In Progress	In Progress	TBD	TBD	TBD	TBD
25012	Amanda Manufacturing America, Inc.	Yes	Yes	Yes	<0.1	0.00	0.00	0.000
41229	Lubeco, Inc. **(e)**	Yes	In Progress	In Progress	TBD	TBD	TBD	TBD
45938	E.M.E. Inc.	Yes	Yes	Yes	<0.1	0.00	<0.01	0.000
48323	Sigma Plating Co.	Yes	Yes	Yes	13.8	0.01	0.74	0.017
61160	GE Engine Services	Yes	Yes	Yes	0.50	0.7	0.01	0.000
119127	PRC DeSoto International **(a)**	Yes	Yes	Yes	N/A	N/A	N/A	N/A
124838	Exide Technologies **(d)**	Yes	Yes	*(See Note)*	N/A	N/A	N/A	N/A
134931	Alcoa Global Fasteners, Inc.	Yes	Yes	Yes	0.6	1.90	0.02	0.000
155828	Garrett Aviation Services, LLC	Yes	Yes	Yes	9.3	0.19	0.25	N/A
165192	Triumph Aerostructures, LLC. **(c)**	Yes	Yes	Yes	19.7	0.64	0.24	N/A
173913	Triumph Processing, Embee Div, Inc.	Yes	Yes	Yes	6.6	0.21	0.58	N/A
800037	DeMenno/Kerdoon	Yes	Yes	Yes	4.9	<0.01	0.02	0.01
800063	Grover Products Co.	Yes	Yes	Yes	3.3	0.88	0.07	0.039
800196	American Airlines, Inc.	Yes	Yes	Yes	5.4	0.86	0.08	0.190

Notes:

(a) Facility has left the Basin, resulting risks are zero.

(b) Facility has shut down, resulting risks are zero.

(c) The specific risk driver listed in this HRA is no longer in use & the resulting risk has been eliminated.

(d) Facility undergoing closure and is no longer operating.

(e) Represents previously approved HRA and RRP values. New HRA and RRP review is in progress.

APPENDIX B - TRENDS IN AMBIENT AIR TOXICS IN THE SOUTH COAST AIR BASIN

In addition to SCAQMD's periodic Multiple Air Toxics Exposure Studies (MATES), CARB has maintained a long-term continuous toxics monitoring network since the late 1980's.[19] In this appendix, trends in cancer risks are illustrated for sites in the Basin. Health risk levels for the most recent three-year period (i.e., 2014 to 2016) are also shown for the air toxics which are monitored. CARB's monitoring network does not include DPM, which contributes significantly to cancer risks in the Basin. Since this is ambient air quality data, both mobile and stationary emission sources are captured in the health risk levels provided here. Looking at this historical data set illustrates the benefits of past regulatory control efforts.

Four of the approximately 16 current active sites in CARB's statewide toxics monitoring network are in or near the Basin as shown in Figure B-1. CARB's long-term sites are located in Azusa, Los Angeles, and Riverside-Rubidoux. Simi Valley is included in this analysis since it is just outside the western edge of the Basin and represents conditions at the western end of San Fernando Valley. The measurements consist of 24-hour integrated samples collected once every 12 days. Table B-1 lists the toxic air contaminants that are monitored and the carcinogenic compounds in the table are identified with an asterisk.

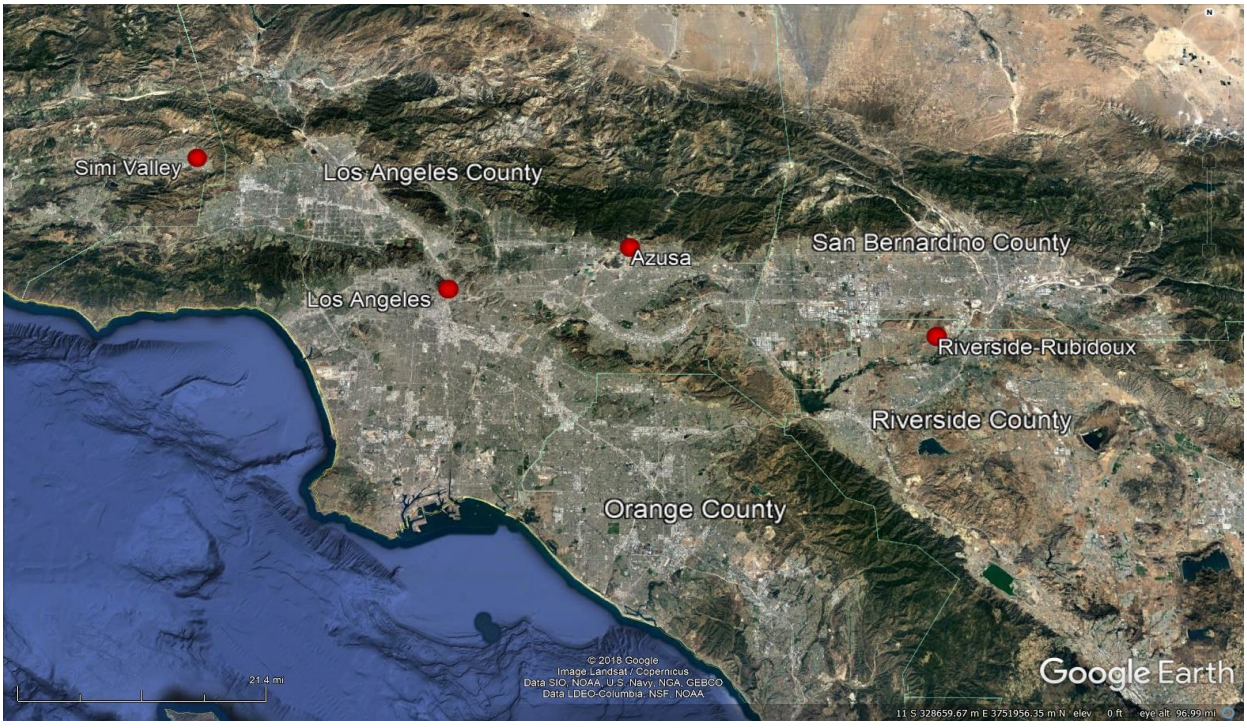

Figure B-1 – CARB toxic monitoring sites in the South Coast Air Basin

[19] Information about and data from CARB's toxic monitoring data are available at: http://www.arb.ca.gov/adam/toxics/toxics.html

Table B-1 – Toxic Air Contaminants Monitored

Toxic VOC		Toxic PM
Acetaldehyde*	Methyl Bromide	Hexavalent Chromium*
Acrolein	Methyl Chloroform	Lead*
Benzene*	Methyl Ethyl Ketone	Manganese
1,3-Butadiene*	Methylene Chloride*	Nickel*
Carbon Tetrachloride*	Perchloroethylene*	Selenium
Chloroform*	Styrene	
Ethyl Benzene*	Toluene	
Formaldehyde*	Trichloroethylene*	

* carcinogen

The 2015 OEHHA HRA Guidelines[20] incorporates age sensitivity and exposure factors which increase cancer health risk estimates to residential and sensitive receptors by approximately three times, and more than three times in some cases depending on whether the toxic air contaminant has multiple pathways of exposure in addition to the inhalation pathway. Under the 2015 OEHHA HRA Guidelines, even though the toxic pollutant concentrations may not have increased, the estimated cancer risk to a residential receptor will increase.

Figure B-2a presents health risk trends using the 2015 OEHHA HRA Guidelines. Inhalation cancer health risks have decreased significantly at all stations since 1990. Cancer risks have decreased by 44, 81, and 76 percent at Riverside, Los Angeles, and Simi Valley, respectively[21]. Azusa station shows a decrease in cancer risk by 35 percent since 2000.

Note that the Riverside station shows an increase in cancer risk for 2016. This is solely due to higher measured concentrations of methylene chloride for 2016, which were more than 30 times higher than the previous year. The current available readings for 2017 have dropped to a level that is consistent with 2015 and earlier data. Figure B-2c shows the monitored methylene chloride concentrations at the Riverside station from 2000 to 2017, averaged by quarter.

Nevertheless, the 2016 concentrations have not been invalidated and are therefore included in the estimation of inhalation cancer risk in Figure B-2a. The inhalation cancer risk shown is estimated based on a 30-year exposure. Given that 2017 concentrations of methylene chloride have returned to the levels consistent with earlier years, Figure B-2b shows the trends in cancer risk excluding those measured in 2016. Figures B-2a and B-2b are provided below to show the effect of the 2016 Riverside methylene chloride measurements on the inhalation cancer risk.

[20] OEHHA, Air Toxics "Hot Spots" Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, February 2015, adopted March 2015, https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

[21] Some concentrations were not available for certain years. In order to avoid under-representing the total cancer risk from all toxic compounds, values are interpolated between years where possible. If data for a certain toxic compound is unavailable for the latest year, the available data point from the most recent prior year is used in its place.

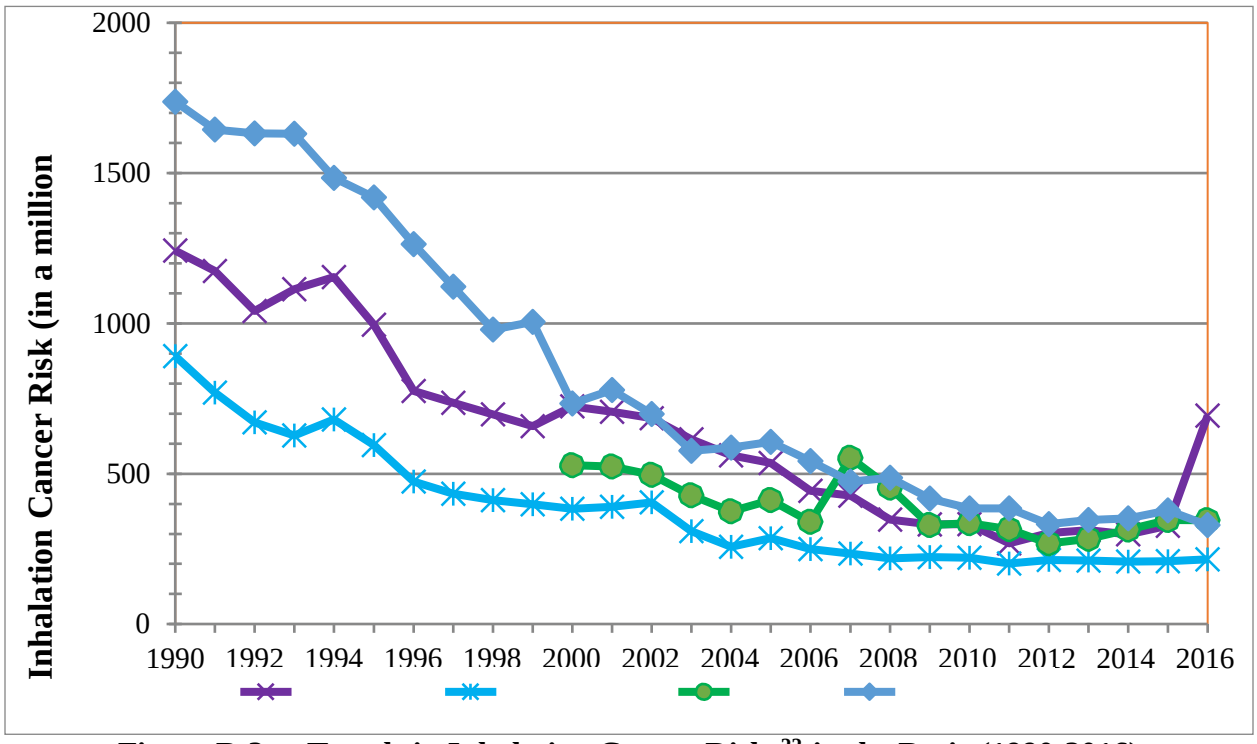

Figure B-2a - Trends in Inhalation Cancer Risks[22] in the Basin (1990-2016)

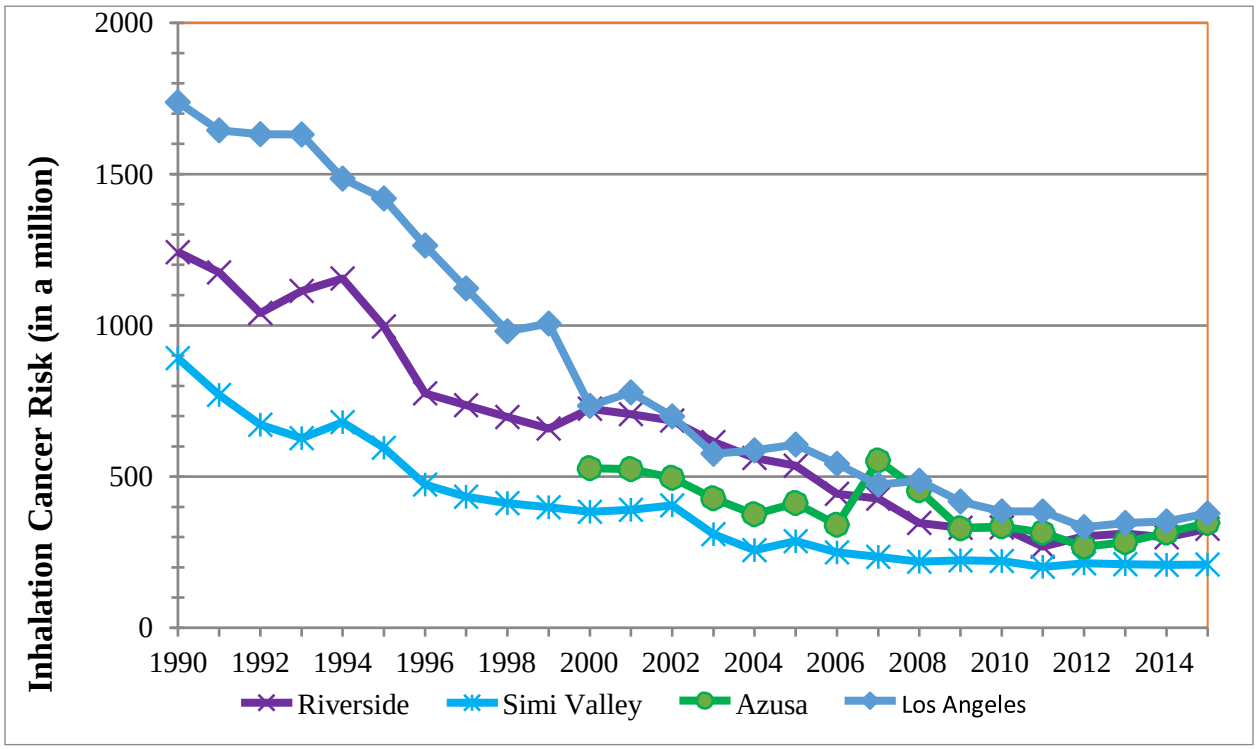

Figure B-2b - Trends in Inhalation Cancer Risks in the Basin (1990-2015)

[22] Calculated with 2015 OEHHA HRA Guidelines, excluding cancer risks from DPM.

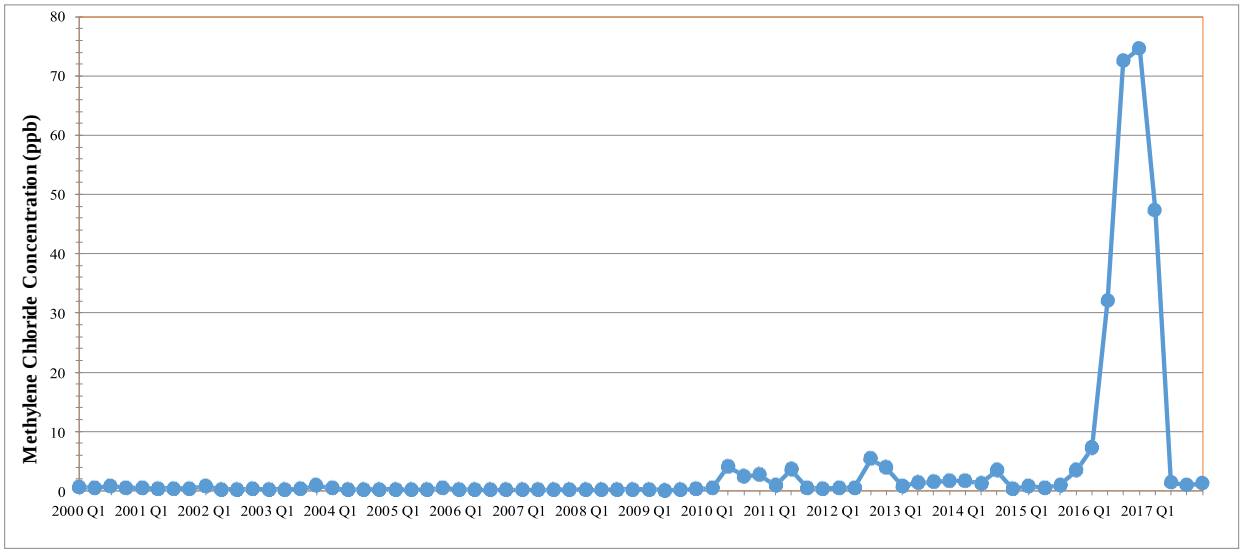

Figure B-2c – Methylene Chloride Monitored Concentrations at Riverside Station, Averaged by Quarter (2000 to 2017)

Azusa station started in 1995 as one of the Photochemical Assessment Monitoring Stations (PAMS) network aimed at determining speciated hydrocarbon ozone precursor compounds in ambient air. On October 17, 2006, U.S. EPA issued final amendments to PAMS monitoring requirements in 40 CFR Code 58. On July 1, 2009, to address these amendments, and with site-specific observations from the PAMS network assessment project, Azusa station was reclassified from Type 3 (maximum ozone concentration site) to Type 2 (maximum ozone precursor emissions impact site or above 8-hour ozone). The proposed change addressed the National PAMS Network Assessment that Azusa has high Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NOX) concentrations, with lower ozone concentrations. The site now more closely resembles a Type 2 ozone precursor site.

The reduction in cancer risk at the Azusa station is primarily from reductions in ambient concentrations of benzene and 1,3-butadiene. Benzene accounts for 50 percent of the cancer risk reduction and 1,3-butadiene accounts for 46 percent of the cancer risk reduction.

The cancer risk reductions shown in Figure B-2a occurred despite significant increases in population and vehicle activity. As shown in Table B-2, the population increased by 38 percent since 1990 and daily vehicle miles traveled (VMT), vehicle population, and daily fuel consumption increased by 43, 54, and 31 percent, respectively.

Table B-2 - Change in Population and Vehicle Activity in the Basin Since 1990

Activity Variable	1990	2017	Percentage Increase
Population	13,083,594	18,098,716	38.3%
Daily Vehicle Miles Traveled (1,000 mile per day)	282,561	403,020	42.6%
Vehicle Population	7,547,354	11,582,730	53.5%
Daily Fuel Consumption (1,000 gal per day)	18,338	24,067	31.2%

Source: http://www.arb.ca.gov/app/emsinv/trends/ems_trends.php.

The relative importance of each of the toxics at the four monitoring stations is illustrated in Figure B-3a below. These ranges do not represent all potential exposures, and some areas near facilities with toxic air contaminant emissions may have higher cancer risks. The range of cancer risks for the four sites analyzed here are shown for the most recently available three-year period (2014 to 2016). As mentioned previously, the inhalation cancer risk estimated for 2016 includes the high measurements for methylene chloride at the Riverside station that are inconsistent with all other readings taken at this station. To better demonstrate the effect of the 2016 Riverside methylene chloride measurements on the inhalation cancer risks, Figure B-3b is provided to show the three-year period before 2016 (2013 to 2015).

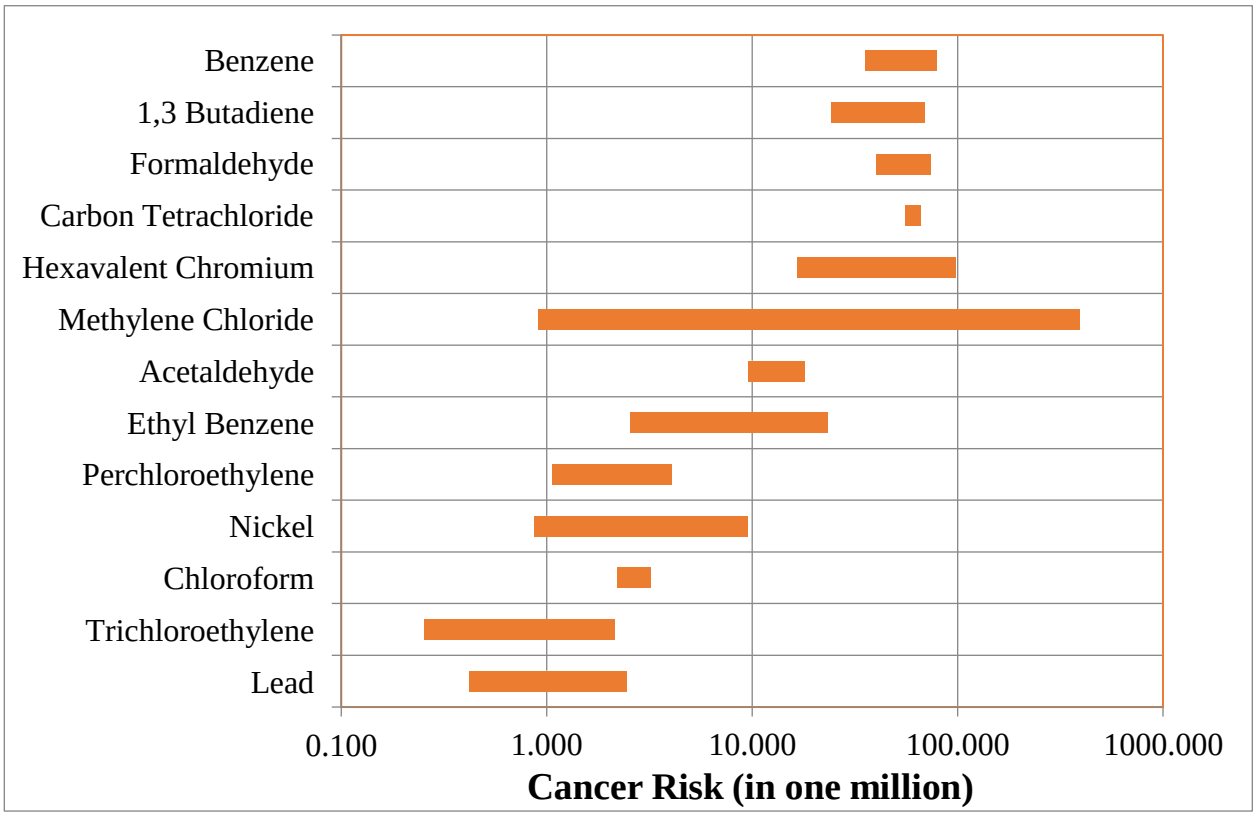

Figure B-3a - Inhalation Cancer Risks in the Basin (2014 to 2016) (excluding DPM)

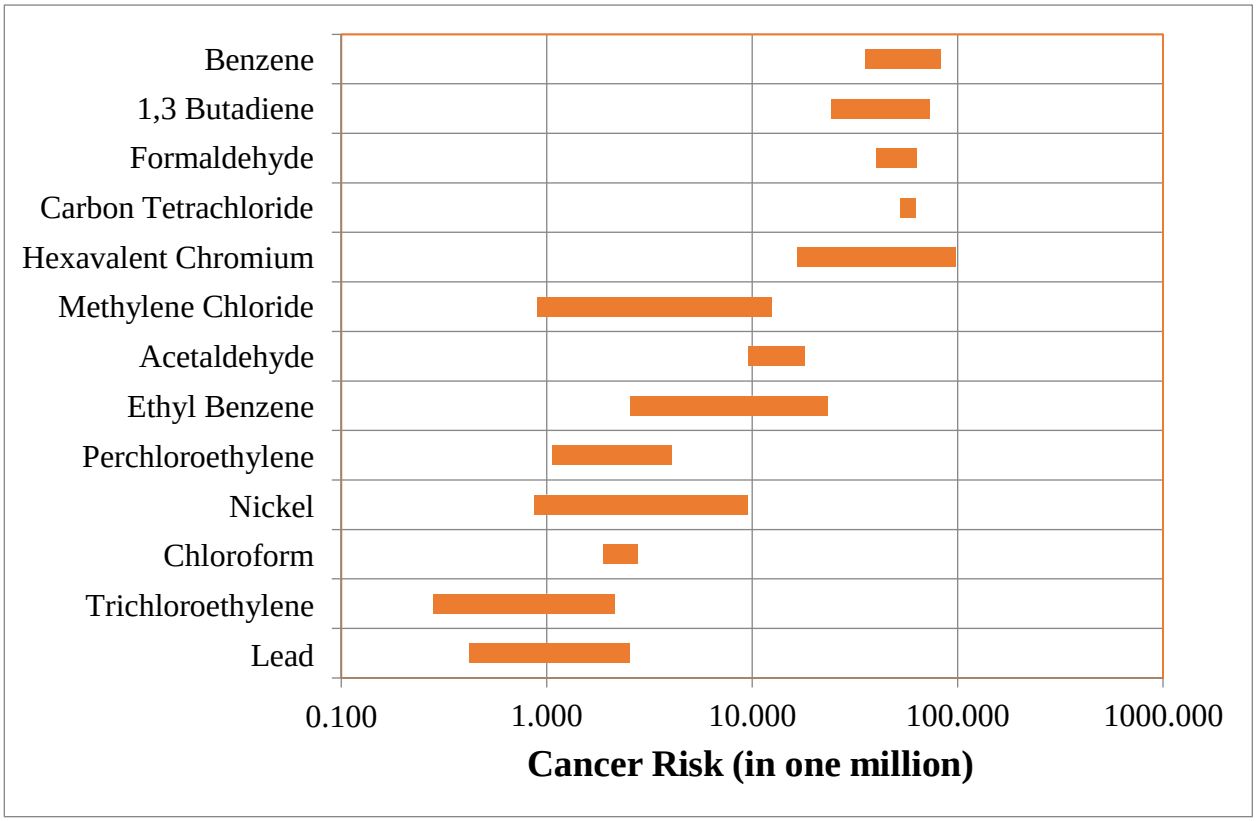

Figure B-3b - Inhalation Cancer Risks in the Basin (2013-2015) (excluding DPM)

Benzene, 1,3-butadiene, formaldehyde, carbon tetrachloride, hexavalent chromium, methylene chloride, acetaldehyde, and ethyl benzene are the largest contributors to the inhalation cancer risks, contributing individually from approximately 0.9 to 396 in a million. The ambient carbon tetrachloride concentrations observed in the Basin are not from a local source of emissions but represent background conditions. Note that there is little variability in cancer risks attributable to carbon tetrachloride as indicated by its short bar in Figure B-3a. In fact, there is little variability statewide in carbon tetrachloride concentrations, with concentrations varying by less than ten percent. Perchloroethylene, chloroform, and nickel each contribute between approximately 0.9 and 9.5 in a million and trichloroethylene and lead contribute on average about two in a million to the inhalation cancer risks.

As demonstrated in the series of MATES conducted by SCAQMD staff, DPM is by far the largest contributor to inhalation cancer risks observed in the Basin. The MATES IV study attributed about 68 percent of the inhalation cancer risks to DPM based on emissions from 2012,[23] compared to 84 percent in MATES III based on emissions in 2005.[24] The total cancer risks shown in Figures B-2 and B-3 therefore represent only about 32 percent of the population weighted inhalation cancer risks found in the MATES IV study.

The range of non-cancer chronic risks for the four sites analyzed here are shown in Figure B-4a for the most recently available three-year period (2014 to 2016). For each toxic air contaminant, the ratio of the observed concentration to the pollutant's chronic REL is shown. Ratios less than one indicate that the observed concentrations are less than OEHHA's defined RELs, and are not anticipated to result in adverse non-cancer health effects in the general population, including sensitive subpopulations. Ratios greater than one indicate the potential for adverse health effects.

Figure B-4b shows the non-cancer chronic risks for the years 2013 to 2015, which excludes the unusually high 2016 Riverside methylene chloride measurements. The range for non-cancer chronic risks for methylene chloride is noticeably smaller in Figure B-4b than in Figure B-4a.

[23] See page ES-2 of the Executive Summary which is available at: http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15

[24] See page ES-3 of the Executive Summary which is available at: http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-iii/mates-iii-final-report

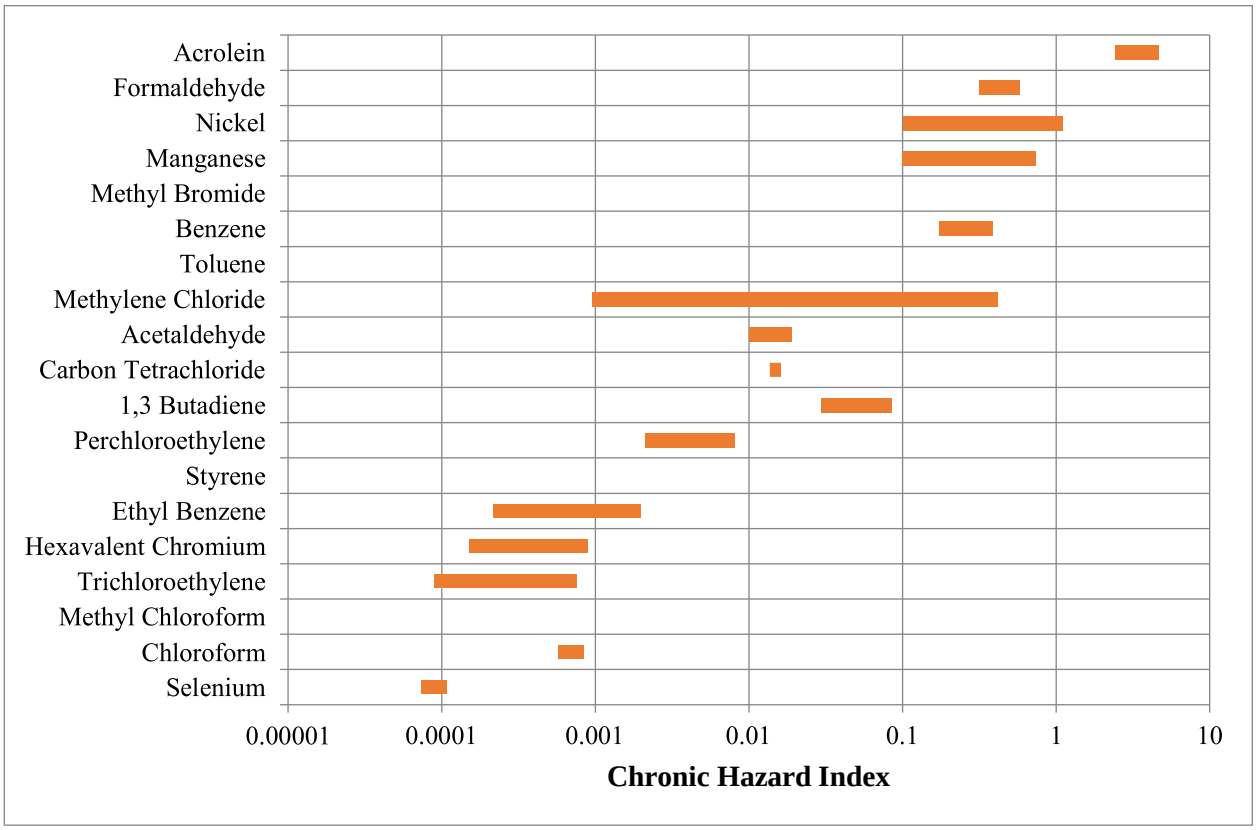

Figure B-4a - Non-cancer Chronic Risks in the Basin (2014-2016)

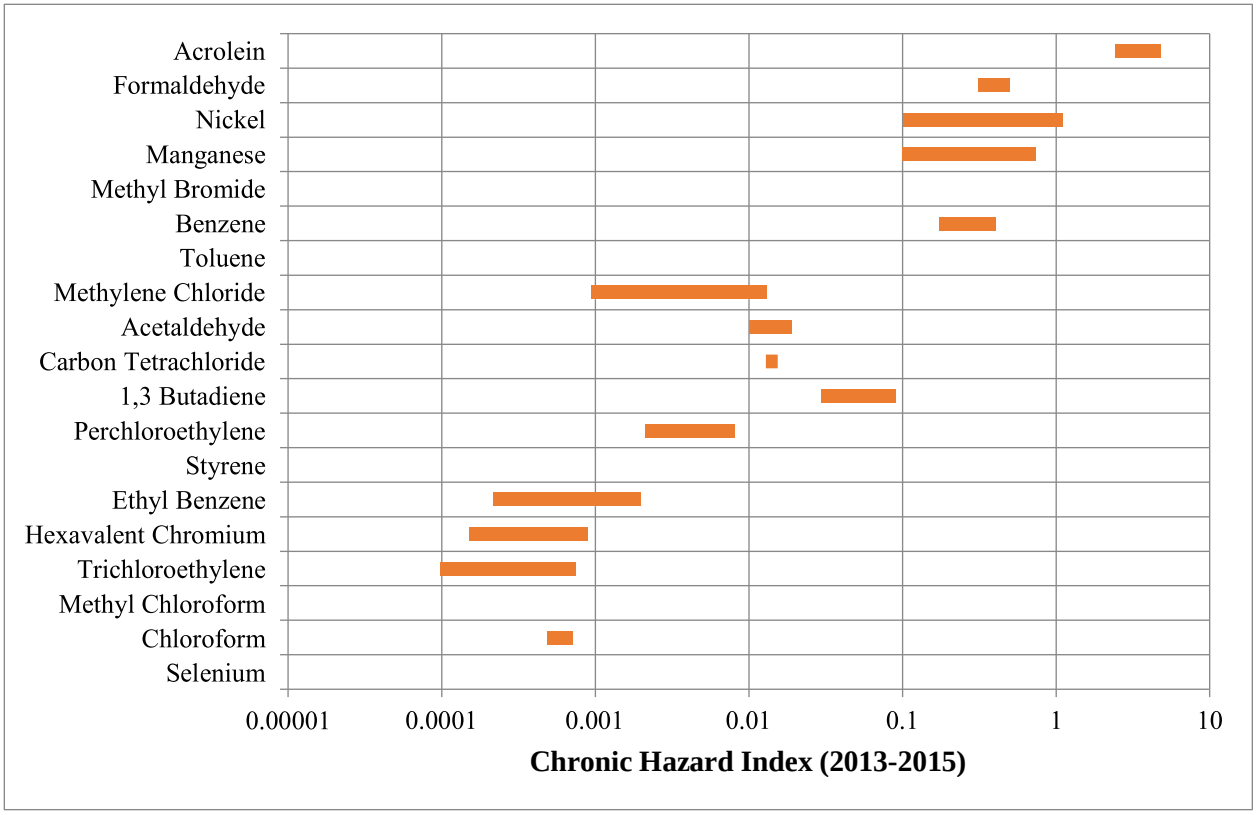

Figure B-4b - Non-cancer Chronic Risks in the Basin (2013-2015)

Note that acrolein, a respiratory irritant, is the only toxic air contaminant in which ambient concentrations are above its REL throughout the state and thus may partially reflect general background conditions. However, it should be noted that acrolein is well known to be difficult to measure with current techniques, and therefore, there is considerable uncertainty and data quality issues associated with these measurements.[25] At best, acrolein monitoring data should be considered as a rough indicator, not accurate enough to be compared to health benchmarks. Acrolein emissions can better be estimated using computer modeling methods.

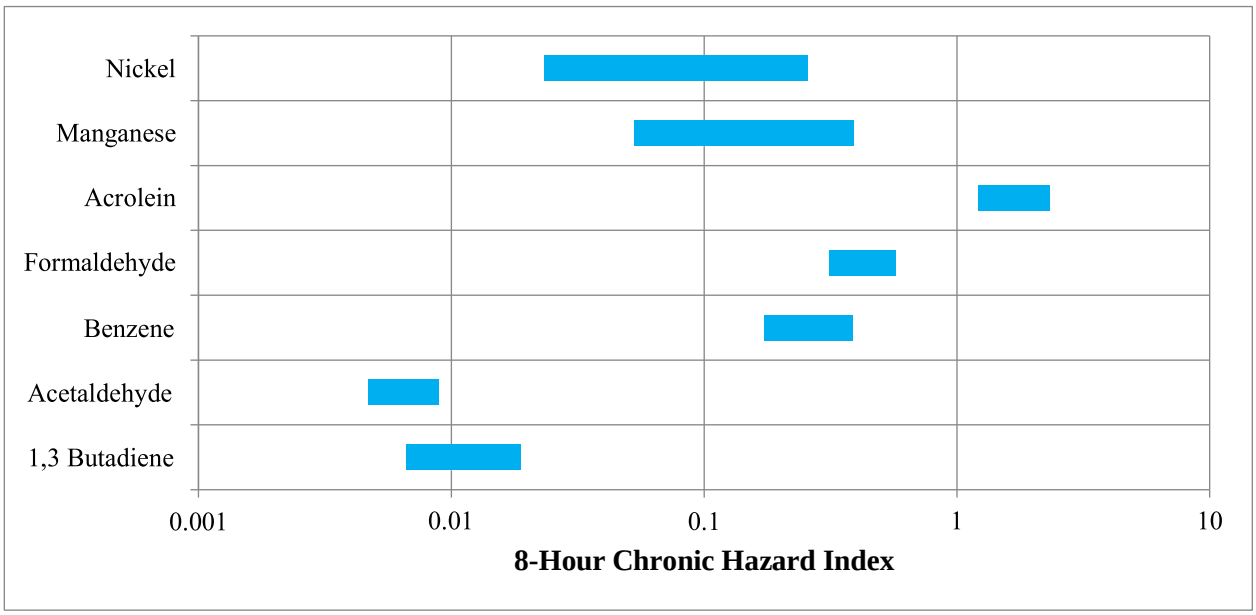

Figure B-5 - Non-cancer 8-Hour Chronic Risks in the Basin 2014 to 2016

The 2015 OEHHA HRA Guidelines includes methodology for estimating an 8-hour chronic HI using 8-hour REL developed for this purpose. The 8-hour RELs were developed only for repeated, chronic daily 8-hour exposures (e.g. a typical worker or resident exposed to a facility that operates equal to or more than 8 hours per day and 5 days per week). The 8-hour chronic HI is based upon the daily average 8-hour exposure only for those chemicals with 8-hour chronic RELs. The range of non-cancer 8-hour chronic health risks for the four sites analyzed here are shown above in Figure B-5 for the most recently available three-year period (2014 to 2016). Methylene chloride does not have an 8-hour REL as defined by OEHHA and does not affect the 8-hour chronic hazard index.

For each toxic air contaminant, the ratio of the observed concentration to the pollutant's chronic REL is shown. Ratios less than one indicate that the observed concentrations are less than

[25] R. Schulte-Ladbeck, et al. "Characterization of chemical interferences in the determination of unsaturated aldehydes using aromatic hydrazine reagents and liquid chromatography." J. Environ. Monit., 2001, 3, 306–310.
Ho, S.S.H., et al. "Unsuitability of using the DNPH-coated solid sorbent cartridge for determination of airborne unsaturated carbonyls." Atmospheric Environment. 2011 45, 261-265.
Herrington, J.S., et al. "Concerns regarding 24-h sampling for formaldehyde, acetaldehyde, and acrolein using 2,4-dinitrophenylhydrazine (DNPH)-coated solid sorbents." Atmospheric Environment 2012, 55, 179-184.
Grosjean, D., "Ambient Levels of Formaldehyde, Acetaldehyde, and Formic Acid in Southern California: Results of a One-Year Base-Line Study," Environmental Science & Technology, Vol 25, 1991, pp. 710–715.

OEHHA's defined RELs, and are not anticipated to result in non-cancer health effects in the general population, including sensitive subpopulations. Ratios greater than one indicate the potential for adverse health effects. As stated above, acrolein is the only toxic air contaminant in which ambient concentrations are above its REL. It should be noted that the ambient concentrations of acrolein are above its REL throughout the state and thus may partially reflect general background conditions.

APPENDIX C - LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Description
AB 2588	Air Toxics "Hot Spots" Information and Assessment Act
AER	Annual Emissions Reporting
ATIR	Air Toxics Inventory Report
CARB	California Air Resources Board
CCP	Clean Communities Plan
CEMS	Continuous Emissions Monitoring System
CEQA	California Environmental Quality Act
DPM	Diesel Particulate Matter
EIM	Emission Inventory Module
EIR	Environmental Impact Report
H&S	Health and Safety
HARP	Hotspots Analysis and Reporting Program
HI	Hazard Index
HRA	Health Risk Assessment
MATES	Multiple Air Toxics Exposure Study
MICR	Maximum Individual Cancer Risk
NAAQS	National Ambient Air Quality Standard
NATA	National Air Toxics Assessment
OEHHA	Office of Environmental Health Hazard Assessment
PAMS	Photochemical Assessment Monitoring Stations
REL	Reference Exposure Levels
RRP	Risk Reduction Plan
SCAQMD	South Coast Air Quality Management District
U.S. EPA	United States Environmental Protection Agency
VRRP	Voluntary Risk Reduction Plan

ATTACHMENT 2

South Coast Air Quality Management District

Facility Prioritization Procedure
for
the AB 2588 Program

September 2018

Preface

This version of the Prioritization Procedure updates the previous November 2016 version, which was updated to incorporate the California Office of Environmental Health Hazard Assessment *Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments* (2015 OEHHA Guidelines). This is intended to be a "living" document, which staff will update periodically as needed. The major revisions to this document from the previous November 2016 version include:

- Revising the proximity adjustment factors to account for the latest meteorological data (Version 9);
- Simplifying the determination of a facility score for acute hazard index;
- Revising the residential and worker combined exposure factor for calculation of total cancer score to be consistent with the *Risk Assessment Procedures for Rules 1401, 1401.1 and 212;*
- Referencing the table in the *Supplemental Instructions Reporting Procedures for AB 2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory* for de-minimis reporting limits for toxics rather than including it in this document;
- Referencing the table in the *Permit Application Package "N"* for multipathway adjustment factors rather than including it in this document; and
- Clarifying the descriptions of existing calculation methods

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I. INTRODUCTION

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (commonly known as AB 2588) established a statewide program for the inventory of air toxics emissions from individual facilities as well as requirements for risk assessment and public notification of potential health risks. AB 2588 requires the South Coast Air Quality Management District (SCAQMD) to designate high, intermediate, and low priority categories and include each facility within the appropriate category based on its individual priority score. In establishing priorities, SCAQMD is to consider the potency, toxicity, quantity and volume of hazardous materials released from the facility; the proximity of the facility to potential receptors, including, but not limited to, hospitals, schools, daycare centers, worksites and residences; and any other factors that SCAQMD finds and determines may indicate that the facility may pose a significant risk to receptors.

II. FACILITY PRIORITIZATION PROCEDURE

This document describes the facility prioritization procedure utilized by SCAQMD (SCAQMD Procedure), which is consistent with the California Air Pollution Control Officers Association's (CAPCOA) August 2016 Facility Prioritization Guidelines (CAPCOA Guidelines) [1] developed by the Toxics and Risk Managers Committee (TARMAC).

The CAPCOA Guidelines primarily rely on four parameters to prioritize facilities: emissions, toxicity, the proximity to potential receptors, and stack height. While the SCAQMD Procedure is consistent with the CAPCOA Guidelines, several refinements have been made over the history of SCAQMD's AB 2588 Program. In September 1990, SCAQMD refined the original CAPCOA Guidelines to include adjustment factors for receptor proximity, exposure period, and averaging times in addition to the treatment of multipathway pollutants. In August 2004, SCAQMD revised its Procedure to accommodate the use of cancer potency factors (instead of unit risk factors) to allow for daily breathing rate and body weight variations as well as revised multipathway factors for resident and workers. In March 2011, the SCAQMD Procedure was revised to include updated toxicity criteria. In June 2015, the SCAQMD Procedure was updated to incorporate the revised risk calculation methodologies in the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments.

In November 2016, the SCAQMD Procedure was revised to further streamline and refine the prioritization methodology for better characterization of the priority score for each facility before an Air Toxics Inventory Report (ATIR) or a Voluntary Risk Reduction Plan (VRRP) is requested. The 2016 SCAQMD Procedure used the local meteorology from all available SCAQMD meteorological stations (Version 8 meteorological data) for every facility and evaluated risks at the actual closest receptor locations as well as receptors located in the worst case wind direction (e.g., downwind). The current (July 2018) SCAQMD Procedure incorporates the Version 9 meteorological data and simplifies calculation of a facility's non-cancer acute score.

A facility receives scores for four health endpoints: cancer, non-cancer chronic, non-cancer chronic 8-hr, and non-cancer acute. The cancer, non-cancer chronic, non-cancer chronic 8-hr

[1] http://www.capcoa.org/wp-content/uploads/2016/08/CAPCOA%20Prioritization%20Guidelines%20-%20August%202016%20FINAL.pdf

health endpoints are evaluated for four receptors for each facility: the absolute closest sensitive receptor and worker receptor, and the closest sensitive receptor and worker receptor in the worst case wind direction. The non-cancer acute health endpoint is evaluated at a single receptor only in the worst case wind direction. Unlike the sensitive and worker receptor, this single receptor can be at the facility fenceline due to a potential for one-hour exposure duration. Every facility therefore receives 13 different scores: three health endpoints (cancer, non-cancer chronic and non-cancer chronic 8 hour) at four receptors, and one non-cancer acute health endpoint at a single receptor. The highest score is used to determine the Priority Score (PS).

Three categories are used in the ranking: high priority, intermediate priority and low priority. Based on the priority score, facilities designated as high priority are required to submit either an ATIR or VRRP under the AB 2588 Program. Facilities ranked with intermediate priority are considered to be District Tracking facilities, which are then required to submit complete an air toxics inventory once every four years. Facilities ranked with low priority are potentially exempt from reporting. Due to the very conservative nature of the screening SCAQMD Procedure used for prioritization, and consistent with CAPCOA's Guidelines, a priority score of 10 may be considered similar to a calculated cancer risk of 100 per million or a HI of 10. The same emissions profile evaluated in a more detailed Health Risk Assessment (HRA) using actual stack parameters and more detailed dispersion modeling will likely result in much lower calculated risks. The following table summarizes thresholds used to prioritize facilities:

Table 1: Prioritization Categories

Priority Score	Category
PS > 10	High Priority
1 < PS ≤ 10	Intermediate Priority
PS ≤ 1	Low Priority

Facilities subject to the AB 2588 Program are required to submit a detailed list of their air toxic emissions every four years (referred to as a quadrennial update). Based on their level of air toxic and criteria pollutant emissions, each year a different group of facilities will report a detailed list of its air toxic emissions. Upon initial prioritization of facilities, SCAQMD staff conducts auditing to confirm the distances reported to sensitive receptors and workers, and that the reported emissions are consistent with expected levels considering trends and facility changes such as new or modified permitted equipment or pollution controls, and comparing the priority score results with the last (HRA) or Risk Reduction Plan (Voluntary or Traditional), if applicable. This additional information obtained through priority score auditing will often negate the need to ask for additional reports such as an ATIR. If, however, the priority score remains high, the facility is asked to prepare an ATIR or a VRRP under the AB 2588 Program.

A. Calculation of Cancer Score

The scores for residential and worker cancer effects are calculated as follows:

$$S_{r,cancer} = \sum \left(\frac{E_c}{CP_c}\right) \times MP_{c,r} \times RP_r \times 677.40 \times 10^{-1}$$

$$S_{w,cancer} = \sum \left(\frac{E_c}{CP_c}\right) \times MP_{c,w} \times RP_w \times 55.86 \times 10^{-1}$$

Where;

$S_{r,\ cancer}$ $S_{w,\ cancer}$	=	Total cancer score (summed for all carcinogens separately, by the residential receptor and worker receptor)
c	=	Specific carcinogen
r	=	Residential receptor
w	=	Worker receptor
E_c	=	Annual emissions of carcinogen, c $\left(\frac{ton}{year}\right)$
CP_c	=	Cancer potency of carcinogen, c $(mg/kg\text{-}day)^{-1}$
$MP_{c,r}$ $MP_{c,w}$	=	Multipathway adjustment factor of carcinogen, c; there are separate multipathway factors for residential receptor and worker receptor for the applicable exposure duration (see Table 3.1 of *Permit Application Package "N"*)
RP_r RP_w	=	Receptor proximity adjustment factor for residential receptor and worker receptor, $\chi/Q \left(\frac{\mu g}{m^3} \Big/ \frac{ton}{year}\right)$
WAF	=	Worker Adjustment Factor (dimensionless)
677.40	=	Residential Combined Exposure Factor that accounts for age-specific breathing rate, age specific factor, exposure duration, exposure frequency, and averaging time from SCAQMD's *Risk Assessment Procedures for Rules 1401, 1401.1 and 212*
55.86	=	Worker Combined Exposure Factor that accounts for age-specific breathing rate, age specific factor, exposure duration, exposure frequency, and averaging time from SCAQMD's *Risk Assessment Procedures for Rules 1401, 1401.1 and 212*
10^{-1}	=	Scalar to adjust priority score to 1-10 scale

Annual Emissions:

Annual emissions of carcinogens are taken from the Toxic Air Contaminants (TAC)/Ozone Depleting Compounds (ODC) Emissions and Fees Summary of the Annual Emission Reporting (AER) Program. Each substance has a degree of accuracy associated with them that is a de-minimis emission level for reporting. As a result, facility-wide air toxic emissions greater than one-half of their corresponding degree of accuracy are inventoried and reported. Conversely, total facility air toxic emissions less than one-half of their corresponding degree of accuracy levels are not considered in the prioritization. The carcinogens and associated degree of accuracy levels are

listed in the *Supplemental Instructions Reporting Procedures for AB 2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory*.[2]

Cancer Potency:

The Cancer Potency (CP) factor is a measure of the cancer potency of a carcinogen. The CP is the estimated probability that a person will contract cancer as a result of a daily inhalation of 1 milligram of the carcinogen per kilogram of body weight continuously over a period of 70 years. The cancer potencies used in this Procedure are published by the Office of Environmental Health Hazard Assessment (OEHHA).[3]

Multipathway Adjustment Factor:

The multipathway (MP_c) adjustment factor is used for carcinogens that may contribute to risk from exposure pathways other than inhalation. These carcinogens deposit on the ground in particulate form and contribute to risk through ingestion of soil or backyard garden vegetables or through other routes. This factor is used to account for additional risks from exposure through non-inhalation pathways. The MP_c adjustment factors for specific carcinogens have been developed by SCAQMD staff by using the Health Risk Assessment Standalone Tool (RAST) developed by the California Air Resources Board (CARB).[4] The MP_c factors also satisfy the requirements of the SCAQMD's *Risk Assessment Procedures for Rules 1401, 1401.1 and 212*.[5] The substances and associated MP_c adjustment factors for worker and residents for longest exposure duration listed in Table 3.1 of *Permit Application Package "N"*[6] or the most current version of the document. For carcinogens that only affect the inhalation pathway, the MP_c adjustment factor is set to one.

Receptor Proximity Adjustment Factor:

There are four Receptor Proximity (RP) adjustment factors calculated for each facility for cancer score. They are calculated based on the distances from the facility to the nearest sensitive (e.g., residential) and worker receptors regardless of wind direction, and the nearest sensitive and worker receptors in the worst case wind direction. The receptors in the worst case wind direction are also evaluated in case the nearest receptors do not experience the highest risk. Receptor locations are off-site, where persons may be exposed to air toxic emissions from the facility. The receptor distance is defined as the closest distance between any major source or group of major sources of air toxic emissions at the facility and the property boundary of any one of the receptor locations. Consistent with the CAPCOA Guidelines, the minimum distance evaluated is 50 meters. The RP adjustment factors for every meteorological station[7] using the Version 9 meteorological data at receptor locations of 50, 75, 100, 200, 300, 500, and 1000 meters are included in Tables 3 and 4 at the end of this guidance. These RP adjustment factors are (χ/Q) values derived from U.S. EPA's AERMOD air dispersion model utilizing a unitary emission rate of one ton per year exiting out of a 0.1 meter diameter stack that is 0.27 meters above a 4.0 meter tall building, with a velocity of 5

[2] http://www.aqmd.gov/docs/default-source/planning/risk-assessment/quadrennial_atir_procedure.pdf
[3] The latest CP values can be obtained at http://www.arb.ca.gov/toxics/healthval/healthval.htm
[4] www.arb.ca.gov/toxics/harp/harp.htm
[5] http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf
[6] www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf
[7] Meteorological station information is available here: www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod

meters per second. Linear interpolation is used to determine the appropriate (χ/Q) for receptor locations located between the distances specified in Tables 3 and 4.

Worker Adjustment Factor:

The modeled annual average air concentration should be adjusted to the air concentration that the worker is actually exposed to if the source does not operate continuously. The Worker Adjustment Factor (WAF) is calculated with the following equation:

$$WAF = \frac{H_r}{H_{source}} \times \frac{D_r}{D_{source}}$$

Where,

H_r = Number of hours per day the annual average residential air concentration is based on (always 24 hours)

H_{source} = Number of hours the source operates per day

D_r = Number of days per week the annual average residential air concentration is based on (always 7 days)

D_{source} = Number of days the source operates per week

B. Calculation of Non-Cancer Score

For a toxic substance, non-cancer health effects can occur via acute, non-cancer 8-hour exposure, and/or annual chronic exposure. All of these non-cancer effects are used in the calculation of a facility's priority score. For each substance associated with acute, non-cancer 8-hour and chronic toxicity, SCAQMD staff calculates separate scores using the formulas shown below.

Non-Cancer Chronic Score:

For a facility which emits pollutants with known non-cancer chronic health effects, the scores for non-cancer chronic effects for residential receptor and worker receptor are calculated as follows:

$$S_{r,chronic} = \sum \left(\frac{E_t}{REL_{t,chronic}} \right) \times MP_{t,r} \times RP_r$$

$$S_{w,chronic} = \sum \left(\frac{E_t}{REL_{t,chronic}} \right) \times MP_{t,w} \times RP_w$$

Where;

$S_{r,\ chronic}$ / $S_{w,\ chronic}$ = Total chronic score (summed for all substances with non-cancer chronic effects separately, by the residential receptor and worker receptor)

t = Toxic substance

r = Residential Receptor

w = Worker Receptor

E_t = Annual emissions of substance, t (ton/year)

$REL_{t,\ chronic}$ = Chronic reference exposure level of toxic substance, t ($\mu g/m^3$)

$MP_{t,r}$ $MP_{t,w}$	=	Multipathway adjustment factor of carcinogen, c; there are separate multipathway factors for residential receptor and worker receptor as shown in Table 3.2 of *Permit Application Package "N"*
RP_r RP_w	=	Receptor proximity adjustment factor for residential receptor and for worker receptor, $\chi/Q \left(\frac{\mu g}{m^3} \Big/ \frac{ton}{year} \right)$
WAF	=	Worker Adjustment Factor (dimensionless)

Non-Cancer 8-Hour Score:

For a facility which emits pollutants with known non-cancer 8-hour health effects, the scores for non-cancer 8-hour effects for residential receptor and worker receptor are calculated as follows:

$$S_{r,8-hr} = \sum \left(\frac{E_t}{REL_t} \right) \times (WAF) \times RP_r$$

$$S_{w,8-hr} = \sum \left(\frac{E_t}{REL_t} \right) \times (WAF) \times RP_w$$

Where;

$S_{w,\ 8\text{-}hr}$ $S_{r,\ 8\text{-}hr}$	=	Total 8-hour score (summed for all substances with non-cancer 8-hour effects separately, by the residential receptor and worker receptor)
t	=	Toxic substance
r	=	Residential Receptor
w	=	Worker Receptor
E_t	=	Annual emissions of substance, t (ton/year)
$REL_{t,\ 8\text{-}hr}$	=	8-hour reference exposure level of toxic substance, t (µg/m^3)
RP_r RP_w	=	Receptor proximity adjustment factor for residential receptor and worker receptor, $\chi/Q \left(\frac{\mu g}{m^3} \Big/ \frac{ton}{year} \right)$
WAF	=	Worker Adjustment Factor (dimensionless)

Non-Cancer Acute Score:

For a facility which emits pollutants with known non-cancer acute health effects, the score for non-cancer acute effects is calculated as follows:

$$S_{acute} = \sum \left(\frac{E_t}{REL_t} \right) \times RP$$

Where;

S_{acute}	=	Total acute score (summed for all substances with non-cancer acute effects separately, by the residential receptor and worker receptor)
t	=	Toxic substance
E_t	=	Annual emissions of substance, t (tons/year)
REL_t	=	Acute reference exposure level of toxic substance, t (µg/m^3)

RP = Receptor proximity adjustment factor for hourly concentration, $\chi/Q \left(\frac{\mu g}{m^3} \Big/ \frac{lb}{hr} \right)$

Annual and Maximum Hourly Emissions:

Two different emissions rates are required for calculating the score for non-cancer health effects. The methodology for calculating the non-cancer score for chronic exposure requires annual emissions (tons/year) for each emitted pollutant whereas calculation of the non-cancer score for acute exposure requires maximum hourly emissions (lbs/hr) for each emitted pollutant. Maximum hourly emissions are obtained by dividing the annual emissions (lbs/yr) of the pollutant by the facility's actual operating hours and then multiplied by a maximum hourly emission adjustment factor of 1.25. Annual emissions are taken from the Toxic Air Contaminants (TAC)/Ozone Depleting Compounds (ODC) Emissions and Fees Summary of the AER Program. As specified previously, emissions of specified substances which are below one-half of their corresponding degree of accuracy levels are neglected in the computation.

Reference Exposure Levels:

The Reference Exposure Level (REL) is used as an indicator of all potential adverse non-cancer health effects, and refers to a concentration level ($\mu g/m^3$) or dose (mg/kg-day) below which no adverse health effects are anticipated. The RELs used in this Procedure are published by OEHHA and CARB.[8]

MultiPathway Adjustment Factor:

The MultiPathway (MP_t) adjustment factor is used for substances that may contribute to non-cancer chronic risks from exposure pathways other than inhalation. The MP_t adjustment factors to evaluate the non-cancer chronic health endpoint for selected toxic pollutants can be found in Table 3.2 of *Permit Application Package "N"*[9] or the most recent version of the document. There are separate MP factors for workers and residents. For non-cancer chronic health effects, substances that only affect the inhalation pathway, the MP_t adjustment factor is set to one (1.0). Note that for calculation of non-cancer scores, the MP_t is relevant for the chronic risk endpoint.

Receptor Proximity Adjustment Factor:

The Receptor Proximity (RP) adjustment factor is the same adjustment factor used in the calculation of the facility cancer score discussed previously. The RP adjustment factor for non-cancer acute score is based on a single distance from the facility to the nearest receptor regardless of wind direction. This receptor can be at the facility fenceline to account for the short one-hour exposure duration. To simplify calculation of the non-cancer acute score, the worst case wind direction is used for the single receptor distance.

[8] www.arb.ca.gov/toxics/healthval/healthval.htm
[9] www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/attachmentn-v8-1.pdf

Worker Adjustment Factor:

The modeled annual average air concentration should be adjusted to the air concentration that the worker is actually exposed to if the source does not operate continuously. This is the same adjustment factor used in the calculation of the facility cancer score discussed previously.

C. Facility Ranking

From the computed scores for cancer and all non-cancer effects, the priority score is the higher of the 13 scores, and serves as the basis for ranking a facility as described in Table 1.

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Azusa	10	7.655	4.130	2.495	0.662	0.305	0.124	0.038
Azusa	20	8.185	4.380	2.644	0.697	0.314	0.125	0.038
Azusa	30	9.407	4.858	2.922	0.755	0.326	0.127	0.039
Azusa	40	11.768	5.819	3.451	0.839	0.344	0.130	0.039
Azusa	50	15.417	7.573	4.449	1.012	0.376	0.134	0.040
Azusa	60	19.640	10.129	6.051	1.362	0.438	0.138	0.042
Azusa	70	22.492	12.152	7.603	1.818	0.531	0.141	0.042
Azusa	80	23.252	12.525	7.756	1.823	0.523	0.140	0.042
Azusa	90	21.273	11.068	6.613	1.499	0.449	0.135	0.041
Azusa	100	17.572	8.821	5.267	1.211	0.403	0.130	0.039
Azusa	110	13.662	7.095	4.287	1.014	0.366	0.126	0.038
Azusa	120	11.066	5.917	3.579	0.882	0.342	0.124	0.038
Azusa	130	9.364	5.210	3.181	0.804	0.327	0.123	0.038
Azusa	140	8.441	4.825	2.970	0.765	0.320	0.122	0.038
Azusa	150	8.057	4.682	2.880	0.754	0.318	0.122	0.038
Azusa	160	8.287	4.711	2.882	0.744	0.315	0.122	0.038
Azusa	170	9.368	5.017	3.051	0.745	0.312	0.122	0.038
Azusa	180	11.449	5.814	3.522	0.796	0.314	0.123	0.038
Azusa	190	13.972	7.367	4.477	1.002	0.345	0.124	0.038
Azusa	200	15.740	8.619	5.377	1.257	0.396	0.124	0.038
Azusa	210	16.469	8.915	5.604	1.343	0.414	0.125	0.038
Azusa	220	15.942	8.355	5.212	1.214	0.394	0.124	0.038
Azusa	230	14.506	7.591	4.634	1.108	0.377	0.124	0.038
Azusa	240	13.186	6.929	4.249	1.038	0.366	0.123	0.038
Azusa	250	12.177	6.451	3.971	0.983	0.357	0.123	0.038
Azusa	260	11.477	6.059	3.696	0.926	0.347	0.123	0.038
Azusa	270	10.745	5.688	3.464	0.878	0.336	0.122	0.038
Azusa	280	10.081	5.306	3.213	0.822	0.329	0.123	0.038
Azusa	290	9.466	4.987	3.023	0.780	0.323	0.123	0.038
Azusa	300	9.034	4.727	2.860	0.755	0.320	0.123	0.038
Azusa	310	8.678	4.518	2.734	0.731	0.316	0.123	0.038
Azusa	320	8.409	4.328	2.614	0.702	0.311	0.122	0.038
Azusa	330	8.144	4.192	2.515	0.679	0.307	0.122	0.038
Azusa	340	7.869	4.102	2.454	0.665	0.305	0.123	0.038

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Azusa	350	7.581	4.048	2.433	0.657	0.303	0.123	0.038
Azusa	360	7.509	4.042	2.435	0.648	0.301	0.123	0.038
Banning	10	1.834	1.222	0.794	0.236	0.114	0.047	0.015
Banning	20	1.908	1.295	0.862	0.258	0.121	0.049	0.015
Banning	30	2.357	1.502	1.021	0.311	0.141	0.054	0.016
Banning	40	3.748	2.120	1.414	0.431	0.192	0.072	0.020
Banning	50	6.731	3.677	2.381	0.697	0.300	0.110	0.030
Banning	60	12.021	6.517	4.184	1.201	0.479	0.170	0.050
Banning	70	18.569	10.388	6.762	1.877	0.696	0.238	0.073
Banning	80	23.911	13.741	8.851	2.448	0.863	0.284	0.090
Banning	90	24.235	14.033	9.124	2.534	0.857	0.284	0.091
Banning	100	19.437	10.881	6.968	1.936	0.700	0.238	0.074
Banning	110	12.291	6.678	4.358	1.259	0.484	0.171	0.051
Banning	120	6.728	3.784	2.515	0.763	0.313	0.112	0.032
Banning	130	3.735	2.316	1.595	0.485	0.205	0.075	0.021
Banning	140	2.488	1.668	1.146	0.345	0.151	0.057	0.017
Banning	150	2.022	1.405	0.943	0.281	0.127	0.050	0.015
Banning	160	1.926	1.306	0.859	0.255	0.118	0.048	0.015
Banning	170	2.045	1.297	0.842	0.248	0.116	0.048	0.015
Banning	180	2.287	1.365	0.885	0.258	0.119	0.049	0.015
Banning	190	2.669	1.531	0.977	0.284	0.128	0.052	0.016
Banning	200	3.136	1.796	1.153	0.334	0.144	0.056	0.017
Banning	210	3.608	2.089	1.359	0.396	0.162	0.061	0.019
Banning	220	3.983	2.286	1.496	0.433	0.175	0.065	0.020
Banning	230	4.178	2.394	1.558	0.447	0.181	0.067	0.021
Banning	240	4.318	2.447	1.596	0.467	0.188	0.068	0.021
Banning	250	4.531	2.516	1.634	0.469	0.191	0.070	0.021
Banning	260	5.129	2.730	1.712	0.491	0.202	0.074	0.022
Banning	270	5.788	3.128	1.940	0.539	0.217	0.080	0.024
Banning	280	6.033	3.351	2.105	0.568	0.226	0.084	0.026
Banning	290	5.481	3.033	1.924	0.531	0.214	0.079	0.024
Banning	300	4.348	2.337	1.439	0.401	0.176	0.068	0.020
Banning	310	3.214	1.688	1.048	0.309	0.143	0.056	0.017
Banning	320	2.526	1.380	0.879	0.264	0.124	0.050	0.015
Banning	330	2.247	1.278	0.809	0.242	0.116	0.047	0.015

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Banning	340	2.122	1.237	0.784	0.235	0.113	0.047	0.014
Banning	350	2.005	1.217	0.775	0.232	0.112	0.046	0.014
Banning	360	1.895	1.206	0.773	0.230	0.112	0.047	0.014
Burbank Arpt.	10	11.332	5.792	3.623	0.913	0.379	0.145	0.043
Burbank Arpt.	20	8.178	4.565	2.856	0.765	0.327	0.124	0.037
Burbank Arpt.	30	6.762	3.898	2.459	0.670	0.289	0.110	0.033
Burbank Arpt.	40	6.150	3.582	2.261	0.620	0.269	0.104	0.032
Burbank Arpt.	50	6.033	3.514	2.211	0.612	0.264	0.102	0.031
Burbank Arpt.	60	6.333	3.633	2.289	0.630	0.267	0.102	0.032
Burbank Arpt.	70	6.963	3.940	2.496	0.678	0.277	0.103	0.032
Burbank Arpt.	80	7.957	4.430	2.794	0.748	0.291	0.105	0.032
Burbank Arpt.	90	9.125	5.059	3.202	0.845	0.306	0.107	0.033
Burbank Arpt.	100	10.303	5.731	3.635	0.953	0.331	0.110	0.034
Burbank Arpt.	110	11.221	6.297	4.045	1.060	0.355	0.112	0.035
Burbank Arpt.	120	11.823	6.658	4.280	1.109	0.366	0.114	0.035
Burbank Arpt.	130	12.050	6.794	4.363	1.135	0.373	0.115	0.036
Burbank Arpt.	140	11.811	6.651	4.324	1.112	0.370	0.115	0.036
Burbank Arpt.	150	11.039	6.275	4.033	1.050	0.353	0.113	0.035
Burbank Arpt.	160	9.847	5.588	3.567	0.910	0.320	0.110	0.034
Burbank Arpt.	170	8.560	4.764	3.040	0.769	0.287	0.106	0.033
Burbank Arpt.	180	7.363	4.076	2.587	0.649	0.262	0.103	0.032
Burbank Arpt.	190	6.464	3.677	2.353	0.618	0.259	0.101	0.031
Burbank Arpt.	200	5.998	3.518	2.241	0.611	0.259	0.100	0.031
Burbank Arpt.	210	5.878	3.433	2.191	0.610	0.259	0.100	0.031
Burbank Arpt.	220	5.903	3.428	2.184	0.608	0.259	0.100	0.031
Burbank Arpt.	230	6.035	3.490	2.219	0.621	0.262	0.100	0.031
Burbank Arpt.	240	6.418	3.660	2.330	0.647	0.268	0.101	0.031
Burbank Arpt.	250	7.044	3.997	2.562	0.706	0.282	0.103	0.032
Burbank Arpt.	260	8.060	4.532	2.893	0.792	0.305	0.108	0.033
Burbank Arpt.	270	9.213	5.167	3.312	0.912	0.336	0.117	0.036
Burbank Arpt.	280	10.508	5.798	3.679	1.018	0.377	0.130	0.040
Burbank Arpt.	290	11.700	6.491	4.147	1.121	0.417	0.145	0.045
Burbank Arpt.	300	12.622	7.119	4.565	1.241	0.459	0.157	0.049
Burbank Arpt.	310	13.120	7.389	4.745	1.283	0.475	0.163	0.051
Burbank Arpt.	320	13.308	7.275	4.658	1.239	0.472	0.164	0.050

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Burbank Arpt.	330	13.495	7.321	4.598	1.222	0.469	0.165	0.049
Burbank Arpt.	340	14.255	7.629	4.760	1.235	0.473	0.169	0.051
Burbank Arpt.	350	14.988	8.101	5.103	1.260	0.469	0.172	0.052
Burbank Arpt.	360	13.944	7.552	4.756	1.141	0.430	0.164	0.050
Central L.A.	10	12.372	6.586	4.039	0.938	0.339	0.123	0.038
Central L.A.	20	12.289	6.467	3.875	0.902	0.340	0.124	0.038
Central L.A.	30	11.924	5.981	3.543	0.826	0.331	0.125	0.038
Central L.A.	40	11.815	5.741	3.364	0.803	0.333	0.127	0.038
Central L.A.	50	12.475	6.033	3.491	0.832	0.342	0.129	0.039
Central L.A.	60	14.213	6.902	3.980	0.915	0.358	0.132	0.040
Central L.A.	70	15.835	8.054	4.797	1.097	0.389	0.134	0.040
Central L.A.	80	16.747	8.791	5.341	1.270	0.418	0.132	0.040
Central L.A.	90	16.248	8.525	5.164	1.241	0.403	0.128	0.039
Central L.A.	100	14.558	7.378	4.365	1.021	0.360	0.123	0.037
Central L.A.	110	12.095	6.124	3.664	0.867	0.331	0.119	0.036
Central L.A.	120	10.308	5.353	3.181	0.780	0.314	0.117	0.036
Central L.A.	130	9.083	4.925	2.961	0.743	0.307	0.116	0.036
Central L.A.	140	8.484	4.732	2.886	0.736	0.307	0.116	0.036
Central L.A.	150	8.314	4.691	2.854	0.733	0.305	0.116	0.036
Central L.A.	160	8.560	4.740	2.852	0.716	0.300	0.116	0.036
Central L.A.	170	9.425	4.964	2.949	0.707	0.296	0.116	0.036
Central L.A.	180	10.993	5.579	3.249	0.716	0.294	0.116	0.036
Central L.A.	190	13.850	6.802	3.965	0.811	0.307	0.117	0.036
Central L.A.	200	16.745	8.774	5.175	1.093	0.348	0.117	0.036
Central L.A.	210	18.447	10.200	6.465	1.563	0.440	0.119	0.036
Central L.A.	220	18.751	10.353	6.663	1.615	0.459	0.119	0.036
Central L.A.	230	17.517	9.238	5.554	1.226	0.378	0.118	0.036
Central L.A.	240	14.952	7.368	4.301	0.924	0.332	0.118	0.036
Central L.A.	250	12.125	6.014	3.509	0.811	0.319	0.118	0.036
Central L.A.	260	10.229	5.170	3.054	0.763	0.312	0.118	0.036
Central L.A.	270	8.895	4.619	2.770	0.714	0.302	0.117	0.036
Central L.A.	280	8.021	4.214	2.514	0.661	0.295	0.117	0.036
Central L.A.	290	7.386	3.938	2.354	0.631	0.290	0.117	0.036
Central L.A.	300	7.112	3.795	2.267	0.620	0.288	0.116	0.036
Central L.A.	310	7.202	3.756	2.243	0.620	0.288	0.116	0.036

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Central L.A.	320	7.512	3.791	2.260	0.620	0.289	0.116	0.036
Central L.A.	330	8.099	3.972	2.318	0.625	0.290	0.117	0.036
Central L.A.	340	9.012	4.434	2.532	0.643	0.293	0.118	0.036
Central L.A.	350	10.412	5.156	3.023	0.698	0.300	0.119	0.037
Central L.A.	360	11.747	6.060	3.650	0.821	0.314	0.121	0.037
Chino Arpt.	10	5.753	3.228	2.054	0.567	0.248	0.098	0.030
Chino Arpt.	20	6.084	3.420	2.177	0.613	0.264	0.102	0.031
Chino Arpt.	30	6.923	3.855	2.468	0.709	0.296	0.111	0.034
Chino Arpt.	40	8.562	4.714	3.032	0.869	0.356	0.129	0.039
Chino Arpt.	50	10.966	6.170	3.972	1.128	0.453	0.161	0.048
Chino Arpt.	60	13.836	7.874	5.116	1.468	0.572	0.200	0.061
Chino Arpt.	70	16.230	9.205	5.999	1.713	0.662	0.231	0.071
Chino Arpt.	80	17.557	9.887	6.322	1.798	0.697	0.244	0.075
Chino Arpt.	90	17.074	9.626	6.221	1.799	0.674	0.237	0.074
Chino Arpt.	100	15.185	8.498	5.459	1.563	0.603	0.214	0.066
Chino Arpt.	110	12.693	7.089	4.625	1.339	0.517	0.181	0.056
Chino Arpt.	120	10.686	6.055	3.937	1.121	0.434	0.151	0.046
Chino Arpt.	130	9.506	5.441	3.523	0.991	0.378	0.130	0.040
Chino Arpt.	140	9.021	5.194	3.386	0.926	0.348	0.119	0.036
Chino Arpt.	150	8.892	5.224	3.395	0.925	0.339	0.115	0.035
Chino Arpt.	160	8.982	5.266	3.412	0.900	0.327	0.113	0.035
Chino Arpt.	170	9.348	5.314	3.445	0.876	0.315	0.114	0.035
Chino Arpt.	180	9.704	5.458	3.528	0.854	0.305	0.115	0.036
Chino Arpt.	190	9.906	5.628	3.654	0.910	0.322	0.115	0.036
Chino Arpt.	200	9.970	5.781	3.753	0.980	0.342	0.116	0.036
Chino Arpt.	210	10.149	5.869	3.831	1.029	0.355	0.116	0.036
Chino Arpt.	220	10.236	5.889	3.859	1.040	0.361	0.117	0.036
Chino Arpt.	230	10.103	5.835	3.794	1.032	0.361	0.117	0.036
Chino Arpt.	240	9.867	5.630	3.653	0.998	0.353	0.115	0.036
Chino Arpt.	250	9.539	5.387	3.483	0.954	0.342	0.113	0.035
Chino Arpt.	260	9.217	5.165	3.307	0.903	0.328	0.111	0.034
Chino Arpt.	270	8.730	4.891	3.134	0.862	0.315	0.108	0.034
Chino Arpt.	280	8.101	4.531	2.886	0.792	0.301	0.106	0.033
Chino Arpt.	290	7.450	4.180	2.680	0.743	0.290	0.104	0.032
Chino Arpt.	300	6.939	3.918	2.507	0.701	0.282	0.102	0.032

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Chino Arpt.	310	6.544	3.687	2.350	0.662	0.272	0.101	0.031
Chino Arpt.	320	6.217	3.486	2.214	0.624	0.263	0.099	0.031
Chino Arpt.	330	5.949	3.341	2.114	0.599	0.255	0.098	0.030
Chino Arpt.	340	5.748	3.245	2.053	0.577	0.248	0.096	0.030
Chino Arpt.	350	5.677	3.175	2.015	0.559	0.243	0.096	0.030
Chino Arpt.	360	5.661	3.167	2.006	0.544	0.239	0.096	0.030
Desert Hot Springs Arpt.	10	4.354	2.431	1.555	0.432	0.190	0.075	0.023
Desert Hot Springs Arpt.	20	3.970	2.302	1.473	0.420	0.184	0.072	0.022
Desert Hot Springs Arpt.	30	3.797	2.206	1.411	0.407	0.179	0.070	0.022
Desert Hot Springs Arpt.	40	3.701	2.148	1.374	0.400	0.178	0.069	0.021
Desert Hot Springs Arpt.	50	3.694	2.173	1.387	0.403	0.179	0.070	0.021
Desert Hot Springs Arpt.	60	3.847	2.273	1.462	0.425	0.185	0.071	0.022
Desert Hot Springs Arpt.	70	4.157	2.456	1.594	0.462	0.196	0.074	0.023
Desert Hot Springs Arpt.	80	4.732	2.747	1.774	0.511	0.213	0.079	0.024
Desert Hot Springs Arpt.	90	5.562	3.187	2.054	0.592	0.238	0.087	0.026
Desert Hot Springs Arpt.	100	6.801	3.840	2.482	0.720	0.284	0.101	0.030
Desert Hot Springs Arpt.	110	8.561	4.809	3.148	0.922	0.361	0.126	0.037
Desert Hot Springs Arpt.	120	11.069	6.268	4.101	1.201	0.471	0.165	0.049
Desert Hot Springs Arpt.	130	14.284	8.182	5.390	1.606	0.624	0.217	0.067
Desert Hot Springs Arpt.	140	17.303	10.020	6.742	1.966	0.764	0.267	0.084
Desert Hot Springs Arpt.	150	18.909	11.211	7.462	2.183	0.831	0.291	0.092
Desert Hot Springs Arpt.	160	18.395	10.804	7.151	2.039	0.772	0.275	0.087
Desert Hot Springs Arpt.	170	16.201	9.106	5.982	1.676	0.629	0.232	0.072
Desert Hot Springs Arpt.	180	12.755	7.020	4.615	1.232	0.472	0.182	0.056
Desert Hot Springs Arpt.	190	9.216	5.194	3.495	0.961	0.376	0.139	0.042
Desert Hot Springs Arpt.	200	6.551	3.969	2.640	0.739	0.295	0.108	0.033
Desert Hot Springs Arpt.	210	5.056	3.080	2.042	0.578	0.237	0.088	0.026
Desert Hot Springs Arpt.	220	4.181	2.533	1.646	0.472	0.201	0.076	0.023
Desert Hot Springs Arpt.	230	3.721	2.244	1.438	0.419	0.183	0.070	0.022
Desert Hot Springs Arpt.	240	3.579	2.112	1.347	0.393	0.174	0.068	0.021
Desert Hot Springs Arpt.	250	3.598	2.083	1.325	0.389	0.173	0.067	0.021
Desert Hot Springs Arpt.	260	3.737	2.120	1.349	0.393	0.174	0.068	0.021
Desert Hot Springs Arpt.	270	3.984	2.227	1.409	0.410	0.179	0.069	0.021
Desert Hot Springs Arpt.	280	4.495	2.461	1.547	0.448	0.195	0.074	0.022
Desert Hot Springs Arpt.	290	5.383	2.886	1.818	0.515	0.221	0.083	0.025

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Desert Hot Springs Arpt.	300	6.685	3.549	2.204	0.614	0.259	0.095	0.028
Desert Hot Springs Arpt.	310	7.973	4.304	2.668	0.724	0.298	0.109	0.032
Desert Hot Springs Arpt.	320	8.619	4.713	2.982	0.798	0.324	0.117	0.034
Desert Hot Springs Arpt.	330	8.325	4.544	2.828	0.765	0.311	0.113	0.033
Desert Hot Springs Arpt.	340	7.280	3.865	2.371	0.641	0.269	0.100	0.029
Desert Hot Springs Arpt.	350	6.004	3.149	1.973	0.543	0.231	0.088	0.026
Desert Hot Springs Arpt.	360	4.988	2.695	1.710	0.466	0.202	0.080	0.024
Fontana	10	7.494	4.115	2.563	0.683	0.303	0.121	0.037
Fontana	20	8.855	4.704	2.898	0.761	0.324	0.125	0.038
Fontana	30	11.533	5.937	3.617	0.926	0.365	0.134	0.040
Fontana	40	15.562	8.126	5.026	1.234	0.437	0.147	0.044
Fontana	50	19.933	10.796	6.792	1.686	0.542	0.162	0.049
Fontana	60	23.176	12.741	8.061	1.992	0.610	0.173	0.053
Fontana	70	23.590	12.904	8.148	1.994	0.611	0.174	0.053
Fontana	80	21.121	11.288	6.985	1.721	0.549	0.165	0.050
Fontana	90	16.789	8.798	5.392	1.345	0.455	0.150	0.045
Fontana	100	12.513	6.522	4.017	1.023	0.384	0.135	0.041
Fontana	110	9.378	5.146	3.230	0.843	0.339	0.125	0.038
Fontana	120	7.859	4.547	2.864	0.768	0.319	0.120	0.037
Fontana	130	7.303	4.358	2.750	0.743	0.311	0.118	0.037
Fontana	140	7.337	4.371	2.759	0.736	0.309	0.117	0.036
Fontana	150	7.708	4.541	2.847	0.760	0.312	0.118	0.037
Fontana	160	8.430	4.828	3.015	0.779	0.314	0.118	0.037
Fontana	170	9.722	5.301	3.320	0.809	0.315	0.120	0.037
Fontana	180	11.633	6.134	3.816	0.870	0.320	0.122	0.038
Fontana	190	13.771	7.425	4.636	1.069	0.359	0.125	0.039
Fontana	200	15.350	8.531	5.395	1.295	0.409	0.129	0.040
Fontana	210	16.031	8.854	5.651	1.391	0.432	0.130	0.040
Fontana	220	15.527	8.445	5.376	1.312	0.422	0.130	0.040
Fontana	230	14.113	7.684	4.829	1.214	0.404	0.127	0.039
Fontana	240	12.529	6.798	4.271	1.086	0.377	0.124	0.038
Fontana	250	11.047	5.960	3.732	0.960	0.352	0.121	0.037
Fontana	260	9.844	5.284	3.276	0.853	0.330	0.119	0.037
Fontana	270	8.866	4.779	2.965	0.791	0.317	0.118	0.037
Fontana	280	8.145	4.399	2.719	0.735	0.308	0.118	0.037

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Fontana	290	7.656	4.132	2.553	0.696	0.301	0.117	0.036
Fontana	300	7.413	3.990	2.459	0.679	0.299	0.117	0.036
Fontana	310	7.299	3.930	2.423	0.674	0.298	0.117	0.036
Fontana	320	7.182	3.887	2.400	0.666	0.296	0.117	0.036
Fontana	330	6.994	3.840	2.364	0.659	0.295	0.117	0.036
Fontana	340	6.790	3.787	2.333	0.647	0.293	0.117	0.036
Fontana	350	6.737	3.769	2.332	0.634	0.289	0.117	0.036
Fontana	360	6.915	3.853	2.395	0.642	0.291	0.118	0.037
Fullerton Arpt.	10	14.907	7.850	4.869	1.151	0.419	0.151	0.046
Fullerton Arpt.	20	14.941	8.065	4.938	1.187	0.438	0.155	0.047
Fullerton Arpt.	30	14.503	7.826	4.858	1.206	0.443	0.155	0.047
Fullerton Arpt.	40	13.643	7.335	4.575	1.140	0.429	0.150	0.045
Fullerton Arpt.	50	12.538	6.744	4.157	1.057	0.405	0.143	0.043
Fullerton Arpt.	60	11.797	6.289	3.880	1.001	0.389	0.138	0.041
Fullerton Arpt.	70	11.901	6.313	3.890	0.982	0.381	0.136	0.041
Fullerton Arpt.	80	13.199	7.004	4.263	1.060	0.391	0.137	0.042
Fullerton Arpt.	90	14.408	7.940	4.970	1.260	0.422	0.138	0.042
Fullerton Arpt.	100	14.712	8.169	5.160	1.332	0.441	0.138	0.043
Fullerton Arpt.	110	13.702	7.465	4.668	1.166	0.405	0.135	0.042
Fullerton Arpt.	120	12.158	6.511	4.005	1.011	0.376	0.132	0.041
Fullerton Arpt.	130	10.988	5.933	3.686	0.949	0.361	0.128	0.039
Fullerton Arpt.	140	10.386	5.682	3.572	0.920	0.353	0.126	0.039
Fullerton Arpt.	150	10.036	5.570	3.488	0.910	0.348	0.124	0.038
Fullerton Arpt.	160	9.763	5.438	3.389	0.863	0.335	0.124	0.038
Fullerton Arpt.	170	9.561	5.283	3.292	0.818	0.323	0.123	0.038
Fullerton Arpt.	180	9.361	5.162	3.212	0.780	0.313	0.123	0.038
Fullerton Arpt.	190	9.236	5.121	3.201	0.792	0.319	0.123	0.038
Fullerton Arpt.	200	9.279	5.205	3.233	0.826	0.329	0.123	0.038
Fullerton Arpt.	210	9.637	5.369	3.360	0.874	0.338	0.124	0.038
Fullerton Arpt.	220	10.341	5.696	3.587	0.922	0.349	0.125	0.039
Fullerton Arpt.	230	11.447	6.264	3.915	0.996	0.364	0.126	0.039
Fullerton Arpt.	240	13.188	7.123	4.435	1.107	0.386	0.128	0.039
Fullerton Arpt.	250	15.160	8.254	5.182	1.275	0.419	0.131	0.040
Fullerton Arpt.	260	16.654	9.246	5.827	1.447	0.451	0.133	0.041
Fullerton Arpt.	270	16.389	9.138	5.809	1.480	0.451	0.133	0.041

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Fullerton Arpt.	280	14.474	7.859	4.870	1.196	0.403	0.132	0.041
Fullerton Arpt.	290	11.838	6.284	3.871	0.964	0.363	0.130	0.040
Fullerton Arpt.	300	9.894	5.359	3.320	0.872	0.349	0.128	0.040
Fullerton Arpt.	310	9.050	5.052	3.162	0.842	0.344	0.128	0.039
Fullerton Arpt.	320	9.009	5.099	3.215	0.853	0.348	0.129	0.040
Fullerton Arpt.	330	9.506	5.418	3.397	0.893	0.356	0.131	0.040
Fullerton Arpt.	340	10.532	5.925	3.686	0.937	0.365	0.135	0.041
Fullerton Arpt.	350	12.203	6.577	4.133	1.008	0.378	0.139	0.043
Fullerton Arpt.	360	13.822	7.360	4.577	1.058	0.387	0.145	0.044
Hawthorne Arpt.	10	6.695	3.721	2.327	0.625	0.278	0.111	0.034
Hawthorne Arpt.	20	7.007	3.947	2.476	0.669	0.289	0.113	0.035
Hawthorne Arpt.	30	7.848	4.366	2.757	0.746	0.308	0.116	0.035
Hawthorne Arpt.	40	9.469	5.138	3.243	0.855	0.338	0.123	0.037
Hawthorne Arpt.	50	11.988	6.463	4.037	1.042	0.390	0.135	0.040
Hawthorne Arpt.	60	14.989	8.157	5.100	1.298	0.461	0.152	0.045
Hawthorne Arpt.	70	17.412	9.442	5.943	1.496	0.514	0.166	0.050
Hawthorne Arpt.	80	19.192	10.158	6.166	1.482	0.514	0.171	0.051
Hawthorne Arpt.	90	19.151	10.265	6.277	1.537	0.504	0.163	0.049
Hawthorne Arpt.	100	17.449	9.515	6.038	1.559	0.499	0.150	0.045
Hawthorne Arpt.	110	14.714	8.137	5.188	1.304	0.429	0.135	0.041
Hawthorne Arpt.	120	12.269	6.718	4.176	1.036	0.367	0.123	0.037
Hawthorne Arpt.	130	10.777	6.047	3.828	0.966	0.345	0.117	0.036
Hawthorne Arpt.	140	10.384	5.979	3.848	0.970	0.341	0.113	0.035
Hawthorne Arpt.	150	10.382	6.063	3.869	0.978	0.339	0.112	0.035
Hawthorne Arpt.	160	10.399	6.018	3.784	0.924	0.322	0.111	0.034
Hawthorne Arpt.	170	10.431	5.857	3.684	0.863	0.305	0.110	0.034
Hawthorne Arpt.	180	10.290	5.696	3.579	0.811	0.291	0.110	0.034
Hawthorne Arpt.	190	10.080	5.592	3.509	0.818	0.298	0.110	0.034
Hawthorne Arpt.	200	9.865	5.546	3.463	0.850	0.310	0.110	0.034
Hawthorne Arpt.	210	9.881	5.492	3.462	0.875	0.317	0.110	0.034
Hawthorne Arpt.	220	9.996	5.532	3.492	0.881	0.320	0.110	0.034
Hawthorne Arpt.	230	10.104	5.625	3.537	0.905	0.325	0.111	0.034
Hawthorne Arpt.	240	10.253	5.658	3.556	0.919	0.330	0.112	0.034
Hawthorne Arpt.	250	10.317	5.623	3.529	0.906	0.329	0.113	0.035
Hawthorne Arpt.	260	10.414	5.599	3.462	0.889	0.328	0.114	0.035

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Hawthorne Arpt.	270	10.229	5.537	3.447	0.898	0.329	0.116	0.036
Hawthorne Arpt.	280	9.829	5.294	3.290	0.861	0.327	0.117	0.036
Hawthorne Arpt.	290	9.225	4.941	3.069	0.800	0.317	0.117	0.036
Hawthorne Arpt.	300	8.654	4.633	2.873	0.766	0.313	0.117	0.036
Hawthorne Arpt.	310	8.207	4.436	2.749	0.741	0.307	0.116	0.036
Hawthorne Arpt.	320	7.859	4.243	2.649	0.716	0.302	0.115	0.035
Hawthorne Arpt.	330	7.481	4.077	2.523	0.691	0.295	0.114	0.035
Hawthorne Arpt.	340	7.093	3.883	2.398	0.654	0.286	0.113	0.035
Hawthorne Arpt.	350	6.802	3.721	2.306	0.622	0.278	0.112	0.035
Hawthorne Arpt.	360	6.651	3.649	2.268	0.608	0.274	0.111	0.034
John Wayne Int'l Arpt.	10	11.525	6.411	4.142	1.132	0.452	0.169	0.051
John Wayne Int'l Arpt.	20	14.281	8.138	5.275	1.439	0.552	0.197	0.060
John Wayne Int'l Arpt.	30	16.806	9.540	6.213	1.722	0.636	0.220	0.067
John Wayne Int'l Arpt.	40	18.225	10.207	6.649	1.810	0.667	0.225	0.068
John Wayne Int'l Arpt.	50	18.231	10.236	6.605	1.811	0.653	0.215	0.065
John Wayne Int'l Arpt.	60	17.285	9.760	6.321	1.722	0.609	0.196	0.059
John Wayne Int'l Arpt.	70	15.501	8.727	5.684	1.566	0.545	0.172	0.052
John Wayne Int'l Arpt.	80	13.046	7.287	4.670	1.275	0.454	0.147	0.044
John Wayne Int'l Arpt.	90	10.337	5.773	3.713	1.026	0.372	0.126	0.038
John Wayne Int'l Arpt.	100	8.135	4.624	2.980	0.830	0.317	0.111	0.034
John Wayne Int'l Arpt.	110	6.707	3.918	2.550	0.717	0.284	0.103	0.031
John Wayne Int'l Arpt.	120	6.000	3.578	2.322	0.659	0.267	0.098	0.030
John Wayne Int'l Arpt.	130	5.746	3.436	2.215	0.624	0.257	0.096	0.030
John Wayne Int'l Arpt.	140	5.747	3.397	2.187	0.614	0.255	0.095	0.030
John Wayne Int'l Arpt.	150	5.826	3.448	2.217	0.622	0.253	0.094	0.029
John Wayne Int'l Arpt.	160	5.984	3.481	2.237	0.617	0.250	0.094	0.029
John Wayne Int'l Arpt.	170	6.380	3.572	2.283	0.601	0.244	0.094	0.029
John Wayne Int'l Arpt.	180	7.017	3.871	2.478	0.625	0.245	0.095	0.029
John Wayne Int'l Arpt.	190	7.824	4.383	2.817	0.722	0.268	0.098	0.030
John Wayne Int'l Arpt.	200	8.397	4.847	3.139	0.830	0.296	0.102	0.032
John Wayne Int'l Arpt.	210	8.555	4.942	3.241	0.891	0.316	0.105	0.033
John Wayne Int'l Arpt.	220	8.254	4.683	3.041	0.828	0.309	0.107	0.033
John Wayne Int'l Arpt.	230	7.711	4.374	2.820	0.787	0.302	0.107	0.033
John Wayne Int'l Arpt.	240	7.328	4.169	2.703	0.767	0.299	0.106	0.033
John Wayne Int'l Arpt.	250	7.183	4.089	2.653	0.751	0.296	0.106	0.033

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
John Wayne Int'l Arpt.	260	7.266	4.123	2.675	0.769	0.301	0.108	0.033
John Wayne Int'l Arpt.	270	7.454	4.208	2.720	0.783	0.307	0.112	0.034
John Wayne Int'l Arpt.	280	7.790	4.403	2.830	0.811	0.324	0.118	0.037
John Wayne Int'l Arpt.	290	8.107	4.674	3.067	0.895	0.350	0.125	0.039
John Wayne Int'l Arpt.	300	8.201	4.791	3.140	0.912	0.360	0.130	0.041
John Wayne Int'l Arpt.	310	8.015	4.673	3.047	0.887	0.357	0.130	0.041
John Wayne Int'l Arpt.	320	7.684	4.487	2.943	0.852	0.349	0.128	0.040
John Wayne Int'l Arpt.	330	7.406	4.428	2.898	0.840	0.344	0.127	0.039
John Wayne Int'l Arpt.	340	7.320	4.434	2.930	0.833	0.341	0.128	0.039
John Wayne Int'l Arpt.	350	7.809	4.562	3.035	0.854	0.349	0.133	0.041
John Wayne Int'l Arpt.	360	9.135	5.101	3.361	0.914	0.375	0.146	0.044
Lake Elsinore	10	13.087	6.683	4.001	0.955	0.393	0.153	0.047
Lake Elsinore	20	12.293	6.385	3.835	0.976	0.405	0.155	0.048
Lake Elsinore	30	12.494	6.498	3.927	1.020	0.419	0.158	0.049
Lake Elsinore	40	13.106	6.925	4.207	1.073	0.436	0.163	0.050
Lake Elsinore	50	13.688	7.373	4.505	1.155	0.454	0.166	0.051
Lake Elsinore	60	13.972	7.539	4.630	1.189	0.461	0.166	0.051
Lake Elsinore	70	13.694	7.261	4.441	1.148	0.452	0.163	0.050
Lake Elsinore	80	12.965	6.747	4.094	1.064	0.429	0.159	0.049
Lake Elsinore	90	12.377	6.459	3.929	1.024	0.415	0.156	0.048
Lake Elsinore	100	12.618	6.605	4.025	1.040	0.417	0.155	0.048
Lake Elsinore	110	13.761	7.255	4.445	1.126	0.433	0.156	0.048
Lake Elsinore	120	15.717	8.400	5.156	1.274	0.460	0.158	0.049
Lake Elsinore	130	18.015	9.791	6.095	1.498	0.499	0.159	0.049
Lake Elsinore	140	19.793	10.852	6.903	1.695	0.539	0.160	0.049
Lake Elsinore	150	20.504	11.290	7.084	1.723	0.535	0.159	0.049
Lake Elsinore	160	20.017	10.910	6.793	1.588	0.499	0.157	0.049
Lake Elsinore	170	18.792	10.040	6.234	1.399	0.453	0.155	0.048
Lake Elsinore	180	16.982	8.964	5.517	1.201	0.413	0.154	0.048
Lake Elsinore	190	14.902	7.925	4.893	1.121	0.413	0.153	0.047
Lake Elsinore	200	13.094	7.092	4.336	1.071	0.412	0.152	0.047
Lake Elsinore	210	11.834	6.383	3.937	1.015	0.405	0.151	0.047
Lake Elsinore	220	10.958	5.901	3.636	0.957	0.397	0.151	0.047
Lake Elsinore	230	10.319	5.572	3.402	0.914	0.389	0.150	0.047
Lake Elsinore	240	9.932	5.339	3.250	0.880	0.383	0.150	0.047

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Lake Elsinore	250	9.643	5.204	3.177	0.866	0.381	0.149	0.047
Lake Elsinore	260	9.579	5.160	3.160	0.866	0.380	0.149	0.047
Lake Elsinore	270	9.687	5.197	3.184	0.871	0.379	0.149	0.046
Lake Elsinore	280	10.126	5.336	3.263	0.882	0.382	0.149	0.047
Lake Elsinore	290	11.168	5.743	3.477	0.913	0.388	0.150	0.047
Lake Elsinore	300	13.279	6.739	4.031	1.002	0.403	0.151	0.047
Lake Elsinore	310	16.405	8.527	5.181	1.247	0.444	0.153	0.048
Lake Elsinore	320	19.375	10.494	6.661	1.627	0.519	0.155	0.048
Lake Elsinore	330	20.844	11.671	7.449	1.850	0.553	0.155	0.048
Lake Elsinore	340	20.200	11.088	6.946	1.659	0.508	0.154	0.048
Lake Elsinore	350	17.924	9.390	5.695	1.270	0.430	0.153	0.048
Lake Elsinore	360	15.143	7.633	4.561	1.016	0.392	0.152	0.047
Long Beach Arpt.	10	10.121	5.456	3.439	0.884	0.363	0.138	0.041
Long Beach Arpt.	20	9.056	4.959	3.080	0.815	0.345	0.131	0.039
Long Beach Arpt.	30	7.841	4.267	2.672	0.731	0.317	0.122	0.036
Long Beach Arpt.	40	6.684	3.742	2.368	0.664	0.293	0.113	0.034
Long Beach Arpt.	50	5.843	3.440	2.184	0.624	0.278	0.109	0.033
Long Beach Arpt.	60	5.507	3.289	2.109	0.613	0.275	0.108	0.033
Long Beach Arpt.	70	5.587	3.320	2.156	0.630	0.281	0.110	0.034
Long Beach Arpt.	80	6.197	3.594	2.336	0.687	0.300	0.115	0.035
Long Beach Arpt.	90	7.578	4.187	2.717	0.808	0.340	0.128	0.038
Long Beach Arpt.	100	10.431	5.478	3.422	0.998	0.415	0.154	0.045
Long Beach Arpt.	110	14.532	7.973	5.053	1.359	0.526	0.189	0.058
Long Beach Arpt.	120	18.118	10.657	7.069	1.956	0.671	0.215	0.069
Long Beach Arpt.	130	19.057	11.334	7.581	2.125	0.701	0.212	0.069
Long Beach Arpt.	140	16.868	9.558	6.227	1.649	0.569	0.183	0.057
Long Beach Arpt.	150	13.190	7.209	4.589	1.257	0.447	0.147	0.044
Long Beach Arpt.	160	9.980	5.532	3.566	0.956	0.351	0.122	0.036
Long Beach Arpt.	170	7.954	4.457	2.882	0.745	0.289	0.109	0.033
Long Beach Arpt.	180	6.732	3.845	2.491	0.638	0.261	0.103	0.032
Long Beach Arpt.	190	6.107	3.618	2.348	0.617	0.257	0.100	0.031
Long Beach Arpt.	200	5.936	3.618	2.338	0.632	0.261	0.099	0.031
Long Beach Arpt.	210	6.157	3.703	2.385	0.657	0.266	0.099	0.031
Long Beach Arpt.	220	6.709	3.897	2.493	0.677	0.271	0.100	0.031
Long Beach Arpt.	230	7.484	4.267	2.719	0.731	0.283	0.102	0.031

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Long Beach Arpt.	240	8.497	4.821	3.078	0.819	0.301	0.104	0.032
Long Beach Arpt.	250	9.445	5.395	3.488	0.931	0.326	0.106	0.033
Long Beach Arpt.	260	10.100	5.724	3.674	0.972	0.334	0.107	0.033
Long Beach Arpt.	270	10.166	5.704	3.638	0.958	0.327	0.108	0.033
Long Beach Arpt.	280	9.877	5.508	3.508	0.933	0.329	0.110	0.034
Long Beach Arpt.	290	9.471	5.349	3.441	0.926	0.334	0.113	0.035
Long Beach Arpt.	300	9.214	5.269	3.411	0.932	0.343	0.117	0.036
Long Beach Arpt.	310	9.129	5.235	3.386	0.930	0.349	0.121	0.037
Long Beach Arpt.	320	9.295	5.250	3.398	0.927	0.358	0.126	0.039
Long Beach Arpt.	330	9.596	5.508	3.545	0.963	0.369	0.131	0.040
Long Beach Arpt.	340	9.947	5.684	3.651	0.988	0.378	0.135	0.042
Long Beach Arpt.	350	10.498	5.645	3.599	0.939	0.370	0.138	0.042
Long Beach Arpt.	360	10.699	5.627	3.514	0.882	0.360	0.140	0.042
Los Angeles Int'l Arpt.	10	4.908	2.920	1.903	0.522	0.223	0.088	0.027
Los Angeles Int'l Arpt.	20	5.095	3.040	1.976	0.557	0.234	0.089	0.028
Los Angeles Int'l Arpt.	30	5.625	3.270	2.146	0.616	0.253	0.094	0.029
Los Angeles Int'l Arpt.	40	6.927	3.848	2.530	0.733	0.299	0.108	0.032
Los Angeles Int'l Arpt.	50	9.539	5.202	3.349	0.964	0.389	0.139	0.040
Los Angeles Int'l Arpt.	60	13.907	7.564	4.816	1.373	0.536	0.188	0.056
Los Angeles Int'l Arpt.	70	18.022	10.315	6.698	1.858	0.694	0.238	0.074
Los Angeles Int'l Arpt.	80	19.132	11.123	7.248	2.023	0.745	0.254	0.080
Los Angeles Int'l Arpt.	90	16.063	8.972	5.667	1.571	0.605	0.219	0.066
Los Angeles Int'l Arpt.	100	11.044	5.695	3.479	1.025	0.437	0.162	0.047
Los Angeles Int'l Arpt.	110	6.917	3.785	2.520	0.772	0.326	0.120	0.035
Los Angeles Int'l Arpt.	120	5.401	3.210	2.143	0.635	0.269	0.100	0.030
Los Angeles Int'l Arpt.	130	5.089	3.065	2.012	0.583	0.248	0.094	0.029
Los Angeles Int'l Arpt.	140	5.091	3.062	2.014	0.584	0.246	0.093	0.029
Los Angeles Int'l Arpt.	150	5.068	3.070	2.000	0.580	0.242	0.092	0.029
Los Angeles Int'l Arpt.	160	4.993	2.990	1.926	0.549	0.235	0.091	0.028
Los Angeles Int'l Arpt.	170	4.974	2.875	1.857	0.526	0.228	0.090	0.028
Los Angeles Int'l Arpt.	180	4.999	2.861	1.858	0.511	0.223	0.090	0.028
Los Angeles Int'l Arpt.	190	5.109	2.976	1.938	0.538	0.230	0.091	0.028
Los Angeles Int'l Arpt.	200	5.400	3.177	2.058	0.580	0.241	0.092	0.028
Los Angeles Int'l Arpt.	210	5.966	3.496	2.273	0.638	0.255	0.095	0.029
Los Angeles Int'l Arpt.	220	6.782	3.953	2.586	0.717	0.275	0.098	0.030

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Los Angeles Int'l Arpt.	230	7.720	4.521	2.956	0.812	0.297	0.101	0.031
Los Angeles Int'l Arpt.	240	8.870	5.101	3.327	0.902	0.319	0.105	0.032
Los Angeles Int'l Arpt.	250	10.140	5.756	3.745	1.006	0.344	0.109	0.034
Los Angeles Int'l Arpt.	260	11.449	6.505	4.196	1.113	0.368	0.114	0.035
Los Angeles Int'l Arpt.	270	11.919	6.843	4.455	1.196	0.380	0.117	0.037
Los Angeles Int'l Arpt.	280	11.193	6.393	4.119	1.093	0.364	0.116	0.036
Los Angeles Int'l Arpt.	290	9.588	5.418	3.513	0.944	0.333	0.111	0.034
Los Angeles Int'l Arpt.	300	7.980	4.532	2.927	0.795	0.299	0.104	0.032
Los Angeles Int'l Arpt.	310	6.799	3.911	2.523	0.697	0.274	0.099	0.030
Los Angeles Int'l Arpt.	320	6.021	3.506	2.283	0.630	0.256	0.095	0.029
Los Angeles Int'l Arpt.	330	5.482	3.238	2.093	0.591	0.244	0.091	0.028
Los Angeles Int'l Arpt.	340	5.079	3.020	1.945	0.538	0.230	0.089	0.027
Los Angeles Int'l Arpt.	350	4.883	2.876	1.857	0.514	0.221	0.087	0.027
Los Angeles Int'l Arpt.	360	4.833	2.862	1.853	0.502	0.216	0.087	0.027
Mission Viejo	10	16.344	8.682	5.353	1.202	0.425	0.152	0.046
Mission Viejo	20	15.525	8.320	5.036	1.183	0.432	0.153	0.047
Mission Viejo	30	14.877	7.915	4.842	1.181	0.436	0.154	0.047
Mission Viejo	40	14.352	7.635	4.698	1.157	0.435	0.153	0.047
Mission Viejo	50	13.879	7.404	4.502	1.123	0.428	0.152	0.046
Mission Viejo	60	13.520	7.108	4.320	1.085	0.419	0.150	0.046
Mission Viejo	70	13.233	6.880	4.183	1.052	0.412	0.149	0.045
Mission Viejo	80	13.276	6.821	4.103	1.037	0.408	0.148	0.045
Mission Viejo	90	13.407	6.912	4.176	1.055	0.407	0.148	0.045
Mission Viejo	100	13.581	7.055	4.274	1.080	0.413	0.149	0.045
Mission Viejo	110	13.499	7.093	4.349	1.102	0.418	0.149	0.045
Mission Viejo	120	13.018	6.905	4.247	1.092	0.417	0.148	0.045
Mission Viejo	130	12.057	6.402	3.948	1.036	0.406	0.146	0.045
Mission Viejo	140	10.756	5.660	3.469	0.915	0.382	0.145	0.044
Mission Viejo	150	9.319	4.912	2.979	0.806	0.360	0.143	0.044
Mission Viejo	160	8.192	4.377	2.666	0.743	0.348	0.141	0.044
Mission Viejo	170	7.556	4.102	2.518	0.714	0.341	0.141	0.044
Mission Viejo	180	7.482	4.074	2.507	0.707	0.339	0.140	0.043
Mission Viejo	190	8.023	4.327	2.645	0.729	0.342	0.140	0.043
Mission Viejo	200	9.348	4.977	3.024	0.792	0.351	0.141	0.044
Mission Viejo	210	11.391	6.120	3.744	0.952	0.377	0.141	0.044

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Mission Viejo	220	13.828	7.585	4.767	1.197	0.423	0.142	0.044
Mission Viejo	230	16.038	8.947	5.666	1.412	0.460	0.142	0.044
Mission Viejo	240	17.703	9.810	6.175	1.514	0.477	0.142	0.044
Mission Viejo	250	18.448	10.159	6.385	1.543	0.482	0.142	0.044
Mission Viejo	260	18.688	10.195	6.345	1.527	0.475	0.142	0.044
Mission Viejo	270	18.312	9.997	6.229	1.507	0.466	0.142	0.044
Mission Viejo	280	17.601	9.602	5.969	1.441	0.460	0.142	0.044
Mission Viejo	290	16.665	9.158	5.726	1.382	0.452	0.142	0.044
Mission Viejo	300	15.929	8.839	5.514	1.342	0.447	0.143	0.044
Mission Viejo	310	15.441	8.625	5.403	1.331	0.447	0.143	0.044
Mission Viejo	320	15.301	8.485	5.332	1.295	0.443	0.144	0.044
Mission Viejo	330	15.420	8.563	5.301	1.279	0.437	0.145	0.045
Mission Viejo	340	15.770	8.721	5.397	1.279	0.436	0.146	0.045
Mission Viejo	350	16.476	8.880	5.510	1.249	0.422	0.148	0.045
Mission Viejo	360	16.747	8.928	5.507	1.191	0.407	0.150	0.046
Ontario Arpt.	10	5.661	3.155	1.999	0.546	0.236	0.092	0.028
Ontario Arpt.	20	6.348	3.566	2.275	0.636	0.268	0.101	0.031
Ontario Arpt.	30	7.466	4.113	2.647	0.763	0.316	0.116	0.035
Ontario Arpt.	40	9.456	5.031	3.236	0.949	0.400	0.145	0.042
Ontario Arpt.	50	12.886	6.924	4.381	1.288	0.546	0.200	0.058
Ontario Arpt.	60	17.544	9.881	6.378	1.854	0.747	0.270	0.083
Ontario Arpt.	70	20.749	12.202	8.120	2.389	0.908	0.315	0.101
Ontario Arpt.	80	19.996	11.599	7.581	2.216	0.850	0.297	0.094
Ontario Arpt.	90	15.632	8.605	5.452	1.596	0.635	0.231	0.069
Ontario Arpt.	100	10.805	5.756	3.667	1.112	0.457	0.164	0.048
Ontario Arpt.	110	7.546	4.256	2.831	0.852	0.345	0.124	0.037
Ontario Arpt.	120	6.142	3.610	2.381	0.696	0.287	0.105	0.032
Ontario Arpt.	130	5.647	3.375	2.211	0.645	0.267	0.098	0.030
Ontario Arpt.	140	5.575	3.359	2.208	0.631	0.260	0.096	0.030
Ontario Arpt.	150	5.634	3.451	2.265	0.650	0.262	0.096	0.030
Ontario Arpt.	160	5.783	3.503	2.292	0.644	0.259	0.097	0.030
Ontario Arpt.	170	6.190	3.581	2.346	0.641	0.257	0.098	0.031
Ontario Arpt.	180	6.807	3.850	2.523	0.661	0.262	0.102	0.032
Ontario Arpt.	190	7.696	4.344	2.831	0.753	0.289	0.108	0.033
Ontario Arpt.	200	8.712	5.046	3.303	0.900	0.330	0.115	0.036

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Ontario Arpt.	210	9.731	5.696	3.760	1.050	0.368	0.122	0.038
Ontario Arpt.	220	10.296	6.001	3.992	1.102	0.383	0.124	0.039
Ontario Arpt.	230	10.130	5.898	3.880	1.081	0.374	0.119	0.037
Ontario Arpt.	240	9.553	5.475	3.573	0.981	0.343	0.110	0.034
Ontario Arpt.	250	8.866	5.031	3.275	0.896	0.315	0.101	0.031
Ontario Arpt.	260	8.244	4.676	3.023	0.829	0.291	0.094	0.029
Ontario Arpt.	270	7.533	4.274	2.758	0.752	0.264	0.088	0.027
Ontario Arpt.	280	6.770	3.837	2.462	0.667	0.246	0.085	0.026
Ontario Arpt.	290	6.075	3.468	2.231	0.615	0.235	0.083	0.026
Ontario Arpt.	300	5.601	3.216	2.061	0.571	0.226	0.081	0.025
Ontario Arpt.	310	5.313	3.054	1.953	0.543	0.220	0.081	0.025
Ontario Arpt.	320	5.156	2.958	1.888	0.525	0.217	0.081	0.025
Ontario Arpt.	330	5.038	2.911	1.850	0.519	0.216	0.081	0.025
Ontario Arpt.	340	4.954	2.861	1.820	0.505	0.213	0.082	0.025
Ontario Arpt.	350	4.995	2.847	1.809	0.495	0.212	0.083	0.026
Ontario Arpt.	360	5.211	2.919	1.853	0.499	0.217	0.087	0.027
Palm Springs Arpt.	10	6.254	3.492	2.215	0.560	0.217	0.081	0.025
Palm Springs Arpt.	20	6.171	3.519	2.220	0.576	0.222	0.081	0.025
Palm Springs Arpt.	30	6.249	3.573	2.280	0.607	0.229	0.081	0.025
Palm Springs Arpt.	40	6.440	3.692	2.377	0.635	0.238	0.083	0.025
Palm Springs Arpt.	50	6.736	3.891	2.501	0.671	0.249	0.085	0.026
Palm Springs Arpt.	60	7.317	4.213	2.715	0.731	0.267	0.090	0.027
Palm Springs Arpt.	70	8.203	4.712	3.068	0.832	0.296	0.097	0.030
Palm Springs Arpt.	80	9.355	5.344	3.470	0.943	0.328	0.106	0.033
Palm Springs Arpt.	90	10.382	5.916	3.849	1.058	0.361	0.117	0.036
Palm Springs Arpt.	100	11.300	6.391	4.155	1.159	0.407	0.133	0.040
Palm Springs Arpt.	110	12.374	6.957	4.595	1.313	0.473	0.157	0.047
Palm Springs Arpt.	120	14.132	7.960	5.187	1.494	0.561	0.191	0.058
Palm Springs Arpt.	130	15.928	9.199	6.030	1.718	0.650	0.226	0.071
Palm Springs Arpt.	140	16.177	9.541	6.378	1.822	0.689	0.240	0.077
Palm Springs Arpt.	150	14.037	8.198	5.370	1.570	0.609	0.217	0.069
Palm Springs Arpt.	160	10.440	5.726	3.643	1.058	0.447	0.171	0.052
Palm Springs Arpt.	170	7.179	3.779	2.404	0.732	0.325	0.126	0.037
Palm Springs Arpt.	180	5.289	2.912	1.907	0.557	0.249	0.098	0.029
Palm Springs Arpt.	190	4.555	2.622	1.706	0.485	0.217	0.085	0.026

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Palm Springs Arpt.	200	4.315	2.512	1.598	0.451	0.204	0.081	0.025
Palm Springs Arpt.	210	4.277	2.461	1.553	0.442	0.200	0.079	0.024
Palm Springs Arpt.	220	4.306	2.438	1.533	0.438	0.198	0.078	0.024
Palm Springs Arpt.	230	4.409	2.457	1.529	0.435	0.198	0.078	0.024
Palm Springs Arpt.	240	4.676	2.553	1.590	0.452	0.203	0.079	0.024
Palm Springs Arpt.	250	5.120	2.768	1.734	0.490	0.215	0.083	0.025
Palm Springs Arpt.	260	5.990	3.123	1.925	0.538	0.231	0.088	0.026
Palm Springs Arpt.	270	7.011	3.656	2.225	0.602	0.251	0.095	0.029
Palm Springs Arpt.	280	7.893	4.169	2.552	0.684	0.276	0.101	0.031
Palm Springs Arpt.	290	8.306	4.418	2.742	0.725	0.287	0.104	0.031
Palm Springs Arpt.	300	8.268	4.383	2.699	0.713	0.284	0.102	0.030
Palm Springs Arpt.	310	7.914	4.212	2.607	0.693	0.273	0.097	0.029
Palm Springs Arpt.	320	7.517	4.021	2.529	0.671	0.263	0.093	0.028
Palm Springs Arpt.	330	7.129	3.921	2.461	0.649	0.250	0.089	0.027
Palm Springs Arpt.	340	6.805	3.797	2.390	0.626	0.240	0.086	0.026
Palm Springs Arpt.	350	6.619	3.646	2.300	0.583	0.224	0.084	0.026
Palm Springs Arpt.	360	6.443	3.525	2.222	0.546	0.213	0.082	0.025
Perris	10	18.023	9.480	5.810	1.266	0.432	0.154	0.048
Perris	20	16.116	8.682	5.305	1.264	0.443	0.152	0.047
Perris	30	14.541	7.842	4.855	1.206	0.434	0.151	0.047
Perris	40	13.078	7.038	4.351	1.090	0.415	0.149	0.046
Perris	50	11.763	6.359	3.879	0.996	0.397	0.147	0.046
Perris	60	10.737	5.818	3.555	0.935	0.386	0.146	0.046
Perris	70	10.065	5.446	3.338	0.896	0.380	0.145	0.045
Perris	80	9.767	5.271	3.223	0.863	0.371	0.145	0.045
Perris	90	9.817	5.298	3.254	0.877	0.373	0.145	0.045
Perris	100	10.304	5.534	3.404	0.914	0.384	0.146	0.046
Perris	110	11.363	6.046	3.722	0.978	0.400	0.150	0.046
Perris	120	13.177	6.962	4.291	1.110	0.435	0.157	0.048
Perris	130	15.772	8.344	5.147	1.315	0.488	0.169	0.052
Perris	140	18.317	9.850	6.226	1.564	0.553	0.183	0.056
Perris	150	19.734	10.893	6.896	1.754	0.592	0.191	0.059
Perris	160	19.512	10.643	6.633	1.631	0.561	0.189	0.058
Perris	170	17.839	9.353	5.754	1.374	0.495	0.180	0.056
Perris	180	15.286	7.858	4.826	1.141	0.440	0.169	0.052

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Perris	190	12.981	6.751	4.170	1.025	0.418	0.161	0.050
Perris	200	11.455	6.143	3.766	0.977	0.406	0.156	0.048
Perris	210	10.769	5.789	3.570	0.952	0.399	0.153	0.047
Perris	220	10.462	5.629	3.465	0.929	0.394	0.151	0.047
Perris	230	10.286	5.537	3.388	0.914	0.390	0.150	0.047
Perris	240	10.240	5.450	3.324	0.897	0.385	0.149	0.046
Perris	250	10.193	5.414	3.295	0.886	0.380	0.147	0.046
Perris	260	10.304	5.449	3.320	0.892	0.379	0.146	0.045
Perris	270	10.540	5.578	3.401	0.907	0.377	0.145	0.045
Perris	280	10.991	5.789	3.520	0.928	0.381	0.144	0.045
Perris	290	11.682	6.142	3.731	0.962	0.387	0.145	0.045
Perris	300	12.851	6.762	4.097	1.030	0.399	0.145	0.045
Perris	310	14.635	7.724	4.716	1.160	0.423	0.147	0.046
Perris	320	16.797	8.941	5.570	1.351	0.461	0.149	0.046
Perris	330	18.971	10.289	6.394	1.538	0.493	0.152	0.047
Perris	340	20.523	11.222	6.954	1.609	0.498	0.155	0.048
Perris	350	20.930	11.256	6.993	1.539	0.473	0.156	0.049
Perris	360	19.950	10.481	6.392	1.327	0.428	0.155	0.048
Pico Rivera	10	16.929	8.880	5.436	1.181	0.395	0.137	0.041
Pico Rivera	20	17.595	9.295	5.643	1.273	0.422	0.139	0.042
Pico Rivera	30	18.144	9.434	5.766	1.330	0.436	0.141	0.042
Pico Rivera	40	18.117	9.517	5.883	1.370	0.449	0.141	0.042
Pico Rivera	50	17.029	9.184	5.700	1.391	0.454	0.140	0.042
Pico Rivera	60	15.126	8.110	5.002	1.216	0.418	0.136	0.041
Pico Rivera	70	12.677	6.570	3.975	0.964	0.366	0.131	0.040
Pico Rivera	80	10.282	5.219	3.120	0.798	0.332	0.126	0.038
Pico Rivera	90	8.471	4.422	2.691	0.720	0.314	0.123	0.038
Pico Rivera	100	7.563	4.065	2.495	0.684	0.306	0.121	0.037
Pico Rivera	110	7.226	3.932	2.428	0.673	0.304	0.121	0.037
Pico Rivera	120	7.142	3.890	2.391	0.667	0.302	0.120	0.037
Pico Rivera	130	7.072	3.860	2.369	0.660	0.301	0.120	0.037
Pico Rivera	140	6.953	3.820	2.351	0.657	0.300	0.120	0.037
Pico Rivera	150	6.756	3.745	2.313	0.656	0.300	0.120	0.037
Pico Rivera	160	6.548	3.616	2.239	0.634	0.295	0.120	0.037
Pico Rivera	170	6.519	3.506	2.164	0.611	0.291	0.120	0.037

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Pico Rivera	180	7.006	3.634	2.209	0.608	0.290	0.120	0.037
Pico Rivera	190	8.728	4.335	2.558	0.649	0.295	0.120	0.037
Pico Rivera	200	11.448	5.848	3.480	0.819	0.320	0.121	0.037
Pico Rivera	210	14.162	7.685	4.779	1.179	0.383	0.122	0.038
Pico Rivera	220	15.947	8.883	5.714	1.422	0.433	0.123	0.038
Pico Rivera	230	16.099	8.862	5.585	1.369	0.422	0.123	0.038
Pico Rivera	240	14.811	7.846	4.824	1.140	0.380	0.123	0.038
Pico Rivera	250	12.878	6.700	4.073	0.965	0.351	0.122	0.038
Pico Rivera	260	11.368	5.960	3.613	0.891	0.338	0.122	0.037
Pico Rivera	270	10.409	5.574	3.421	0.867	0.333	0.121	0.037
Pico Rivera	280	9.948	5.388	3.302	0.839	0.328	0.121	0.037
Pico Rivera	290	9.702	5.331	3.273	0.829	0.328	0.121	0.037
Pico Rivera	300	9.735	5.388	3.295	0.839	0.331	0.121	0.037
Pico Rivera	310	10.082	5.550	3.389	0.856	0.335	0.122	0.038
Pico Rivera	320	10.670	5.833	3.590	0.887	0.342	0.123	0.038
Pico Rivera	330	11.457	6.305	3.864	0.949	0.353	0.125	0.038
Pico Rivera	340	12.499	6.854	4.190	0.993	0.361	0.127	0.039
Pico Rivera	350	14.128	7.450	4.570	1.018	0.361	0.130	0.039
Pico Rivera	360	15.780	8.178	4.987	1.049	0.361	0.133	0.040
Redlands	10	7.976	4.634	2.840	0.782	0.363	0.149	0.046
Redlands	20	8.472	4.687	2.849	0.790	0.366	0.149	0.046
Redlands	30	8.843	4.768	2.910	0.809	0.370	0.149	0.046
Redlands	40	9.152	4.914	3.016	0.834	0.376	0.150	0.047
Redlands	50	9.820	5.187	3.181	0.871	0.386	0.151	0.047
Redlands	60	11.354	5.762	3.490	0.935	0.403	0.156	0.048
Redlands	70	14.066	6.998	4.178	1.063	0.435	0.163	0.050
Redlands	80	18.074	9.144	5.454	1.324	0.487	0.171	0.052
Redlands	90	21.113	11.126	6.852	1.707	0.554	0.176	0.054
Redlands	100	21.850	11.587	7.136	1.758	0.569	0.176	0.054
Redlands	110	20.042	10.349	6.345	1.544	0.523	0.170	0.052
Redlands	120	17.069	8.689	5.252	1.291	0.473	0.163	0.050
Redlands	130	14.290	7.287	4.428	1.126	0.437	0.157	0.048
Redlands	140	12.179	6.236	3.799	0.988	0.406	0.153	0.047
Redlands	150	10.623	5.498	3.325	0.889	0.385	0.151	0.047
Redlands	160	9.590	5.010	3.029	0.824	0.372	0.149	0.046

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Redlands	170	8.979	4.715	2.852	0.783	0.363	0.149	0.046
Redlands	180	8.671	4.554	2.761	0.763	0.359	0.148	0.046
Redlands	190	8.438	4.512	2.738	0.765	0.361	0.148	0.046
Redlands	200	8.006	4.528	2.761	0.778	0.365	0.149	0.046
Redlands	210	7.755	4.601	2.839	0.800	0.370	0.150	0.047
Redlands	220	7.971	4.740	2.968	0.831	0.377	0.151	0.047
Redlands	230	8.689	4.960	3.114	0.858	0.382	0.151	0.047
Redlands	240	10.588	5.523	3.363	0.900	0.388	0.151	0.047
Redlands	250	14.273	7.128	4.099	0.974	0.399	0.151	0.047
Redlands	260	21.578	10.549	6.059	1.201	0.421	0.150	0.047
Redlands	270	30.712	16.466	9.941	2.068	0.535	0.150	0.047
Redlands	280	37.628	21.938	14.366	3.603	0.847	0.152	0.047
Redlands	290	38.370	22.653	15.102	3.889	0.916	0.152	0.046
Redlands	300	32.611	18.028	11.205	2.437	0.615	0.150	0.046
Redlands	310	23.669	11.888	6.922	1.364	0.440	0.149	0.046
Redlands	320	16.063	7.825	4.516	1.010	0.398	0.149	0.046
Redlands	330	11.431	5.885	3.529	0.911	0.385	0.149	0.046
Redlands	340	9.169	5.099	3.161	0.849	0.374	0.149	0.046
Redlands	350	8.239	4.790	2.985	0.806	0.366	0.149	0.046
Redlands	360	7.933	4.665	2.878	0.779	0.361	0.149	0.046
Riverside Arpt.	10	6.357	3.639	2.288	0.613	0.264	0.105	0.033
Riverside Arpt.	20	6.310	3.706	2.336	0.638	0.272	0.105	0.033
Riverside Arpt.	30	6.442	3.819	2.427	0.668	0.280	0.107	0.033
Riverside Arpt.	40	6.745	3.984	2.559	0.705	0.293	0.109	0.034
Riverside Arpt.	50	7.413	4.314	2.781	0.760	0.311	0.115	0.035
Riverside Arpt.	60	9.199	5.012	3.206	0.887	0.359	0.129	0.038
Riverside Arpt.	70	13.463	6.819	4.219	1.126	0.446	0.159	0.046
Riverside Arpt.	80	20.625	11.038	6.721	1.654	0.589	0.200	0.061
Riverside Arpt.	90	25.743	14.771	9.612	2.578	0.786	0.229	0.073
Riverside Arpt.	100	25.145	14.315	9.200	2.349	0.739	0.222	0.070
Riverside Arpt.	110	19.505	10.310	6.423	1.630	0.565	0.185	0.055
Riverside Arpt.	120	13.201	6.887	4.304	1.147	0.428	0.145	0.042
Riverside Arpt.	130	9.196	5.061	3.246	0.883	0.342	0.120	0.035
Riverside Arpt.	140	7.145	4.113	2.648	0.724	0.295	0.109	0.033
Riverside Arpt.	150	6.054	3.619	2.314	0.644	0.276	0.106	0.033

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Riverside Arpt.	160	5.536	3.373	2.156	0.606	0.267	0.106	0.033
Riverside Arpt.	170	5.448	3.289	2.100	0.588	0.265	0.107	0.033
Riverside Arpt.	180	5.739	3.364	2.153	0.597	0.271	0.110	0.034
Riverside Arpt.	190	6.370	3.648	2.325	0.648	0.289	0.115	0.035
Riverside Arpt.	200	7.372	4.109	2.612	0.736	0.319	0.124	0.038
Riverside Arpt.	210	8.992	4.917	3.106	0.874	0.362	0.136	0.041
Riverside Arpt.	220	11.154	6.197	3.979	1.088	0.421	0.151	0.047
Riverside Arpt.	230	13.274	7.585	4.930	1.355	0.487	0.163	0.051
Riverside Arpt.	240	14.706	8.420	5.477	1.485	0.513	0.166	0.053
Riverside Arpt.	250	14.894	8.404	5.440	1.467	0.502	0.159	0.050
Riverside Arpt.	260	14.126	7.830	4.991	1.330	0.454	0.145	0.045
Riverside Arpt.	270	12.798	7.053	4.497	1.194	0.403	0.131	0.040
Riverside Arpt.	280	11.479	6.350	4.050	1.069	0.370	0.121	0.037
Riverside Arpt.	290	10.340	5.802	3.740	0.989	0.346	0.114	0.035
Riverside Arpt.	300	9.542	5.415	3.477	0.921	0.331	0.111	0.034
Riverside Arpt.	310	8.966	5.105	3.269	0.865	0.317	0.109	0.034
Riverside Arpt.	320	8.471	4.818	3.091	0.818	0.308	0.108	0.033
Riverside Arpt.	330	7.946	4.528	2.884	0.780	0.299	0.106	0.033
Riverside Arpt.	340	7.424	4.186	2.644	0.704	0.282	0.105	0.033
Riverside Arpt.	350	6.983	3.859	2.426	0.640	0.268	0.105	0.033
Riverside Arpt.	360	6.615	3.672	2.299	0.603	0.260	0.105	0.032
Santa Monica Arpt.	10	9.279	5.039	3.170	0.803	0.326	0.124	0.038
Santa Monica Arpt.	20	10.948	5.830	3.622	0.927	0.365	0.133	0.040
Santa Monica Arpt.	30	13.763	7.058	4.334	1.106	0.417	0.147	0.043
Santa Monica Arpt.	40	16.856	8.913	5.505	1.349	0.486	0.165	0.049
Santa Monica Arpt.	50	18.698	10.346	6.544	1.662	0.563	0.178	0.053
Santa Monica Arpt.	60	18.443	10.217	6.470	1.639	0.556	0.177	0.053
Santa Monica Arpt.	70	16.029	8.563	5.282	1.312	0.474	0.160	0.047
Santa Monica Arpt.	80	12.608	6.506	3.989	1.047	0.399	0.139	0.041
Santa Monica Arpt.	90	9.678	5.214	3.277	0.877	0.344	0.125	0.038
Santa Monica Arpt.	100	8.248	4.610	2.923	0.786	0.318	0.119	0.036
Santa Monica Arpt.	110	7.741	4.435	2.828	0.765	0.312	0.116	0.036
Santa Monica Arpt.	120	7.727	4.477	2.842	0.769	0.311	0.116	0.036
Santa Monica Arpt.	130	7.864	4.586	2.901	0.785	0.314	0.116	0.036
Santa Monica Arpt.	140	8.083	4.689	2.987	0.797	0.318	0.117	0.036

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Santa Monica Arpt.	150	8.335	4.838	3.056	0.813	0.322	0.118	0.037
Santa Monica Arpt.	160	8.677	5.009	3.160	0.819	0.322	0.120	0.037
Santa Monica Arpt.	170	9.256	5.228	3.338	0.835	0.321	0.121	0.038
Santa Monica Arpt.	180	9.909	5.461	3.470	0.829	0.315	0.122	0.038
Santa Monica Arpt.	190	10.848	5.850	3.679	0.878	0.327	0.122	0.038
Santa Monica Arpt.	200	12.075	6.672	4.183	1.015	0.354	0.122	0.038
Santa Monica Arpt.	210	13.681	7.639	4.869	1.220	0.393	0.123	0.038
Santa Monica Arpt.	220	14.854	8.372	5.416	1.347	0.419	0.123	0.038
Santa Monica Arpt.	230	14.984	8.444	5.420	1.367	0.426	0.124	0.038
Santa Monica Arpt.	240	14.156	7.850	4.977	1.238	0.401	0.123	0.038
Santa Monica Arpt.	250	12.754	6.925	4.346	1.085	0.374	0.122	0.038
Santa Monica Arpt.	260	11.407	6.134	3.811	0.967	0.351	0.121	0.037
Santa Monica Arpt.	270	10.262	5.602	3.497	0.909	0.337	0.120	0.037
Santa Monica Arpt.	280	9.397	5.202	3.273	0.863	0.331	0.119	0.037
Santa Monica Arpt.	290	8.629	4.843	3.063	0.818	0.323	0.119	0.037
Santa Monica Arpt.	300	8.066	4.530	2.834	0.763	0.314	0.118	0.036
Santa Monica Arpt.	310	7.653	4.314	2.693	0.731	0.308	0.118	0.036
Santa Monica Arpt.	320	7.402	4.184	2.630	0.721	0.307	0.117	0.036
Santa Monica Arpt.	330	7.233	4.141	2.592	0.709	0.303	0.117	0.036
Santa Monica Arpt.	340	7.270	4.158	2.594	0.698	0.301	0.117	0.036
Santa Monica Arpt.	350	7.614	4.295	2.707	0.708	0.300	0.118	0.036
Santa Monica Arpt.	360	8.227	4.559	2.889	0.731	0.304	0.120	0.037
Upland	10	7.802	4.149	2.507	0.687	0.323	0.132	0.041
Upland	20	8.204	4.377	2.650	0.718	0.332	0.134	0.041
Upland	30	9.156	4.805	2.921	0.778	0.347	0.137	0.042
Upland	40	10.985	5.637	3.430	0.879	0.372	0.142	0.043
Upland	50	13.809	7.049	4.257	1.054	0.413	0.149	0.045
Upland	60	17.733	9.053	5.449	1.301	0.464	0.157	0.047
Upland	70	21.393	11.297	6.925	1.611	0.520	0.162	0.049
Upland	80	23.496	12.789	7.924	1.888	0.566	0.160	0.048
Upland	90	22.593	12.344	7.701	1.889	0.550	0.153	0.046
Upland	100	19.098	10.221	6.250	1.485	0.469	0.144	0.043
Upland	110	14.548	7.879	4.882	1.174	0.409	0.137	0.041
Upland	120	11.568	6.503	4.051	1.008	0.376	0.132	0.040
Upland	130	10.809	6.097	3.792	0.950	0.362	0.130	0.040

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Upland	140	12.523	6.761	4.165	0.982	0.366	0.129	0.040
Upland	150	16.613	9.007	5.450	1.194	0.392	0.129	0.040
Upland	160	21.627	12.273	7.657	1.665	0.460	0.129	0.040
Upland	170	24.921	14.374	9.376	2.076	0.503	0.129	0.040
Upland	180	24.141	13.366	8.431	1.672	0.414	0.129	0.040
Upland	190	19.586	10.080	6.220	1.215	0.378	0.129	0.040
Upland	200	14.389	7.660	4.586	1.044	0.370	0.129	0.040
Upland	210	11.447	6.079	3.736	0.926	0.355	0.129	0.040
Upland	220	9.718	5.267	3.241	0.833	0.342	0.129	0.040
Upland	230	8.818	4.806	2.929	0.783	0.335	0.129	0.040
Upland	240	8.379	4.496	2.731	0.743	0.329	0.129	0.040
Upland	250	8.153	4.276	2.594	0.719	0.325	0.129	0.040
Upland	260	8.073	4.135	2.494	0.698	0.322	0.129	0.040
Upland	270	7.991	4.043	2.427	0.683	0.318	0.129	0.040
Upland	280	7.945	3.995	2.396	0.675	0.318	0.129	0.040
Upland	290	7.956	3.994	2.399	0.676	0.318	0.130	0.040
Upland	300	7.980	4.007	2.407	0.681	0.320	0.130	0.040
Upland	310	7.984	4.007	2.405	0.679	0.320	0.130	0.040
Upland	320	7.951	3.982	2.390	0.675	0.319	0.130	0.040
Upland	330	7.875	3.966	2.372	0.670	0.318	0.130	0.040
Upland	340	7.777	3.961	2.365	0.666	0.317	0.130	0.040
Upland	350	7.699	3.978	2.384	0.665	0.317	0.131	0.040
Upland	360	7.676	4.031	2.426	0.669	0.318	0.131	0.041
USC/Downtown L.A.	10	8.044	4.490	2.745	0.716	0.319	0.128	0.039
USC/Downtown L.A.	20	8.748	4.883	2.979	0.768	0.329	0.128	0.040
USC/Downtown L.A.	30	10.150	5.600	3.449	0.875	0.349	0.130	0.040
USC/Downtown L.A.	40	12.335	6.696	4.172	1.030	0.382	0.132	0.040
USC/Downtown L.A.	50	15.352	8.188	5.073	1.230	0.422	0.137	0.041
USC/Downtown L.A.	60	19.864	10.224	6.209	1.437	0.465	0.143	0.043
USC/Downtown L.A.	70	24.785	13.090	8.009	1.778	0.524	0.149	0.045
USC/Downtown L.A.	80	28.548	15.697	9.827	2.300	0.623	0.153	0.046
USC/Downtown L.A.	90	28.601	15.843	10.033	2.435	0.635	0.151	0.045
USC/Downtown L.A.	100	24.758	13.189	8.038	1.839	0.525	0.144	0.043
USC/Downtown L.A.	110	18.513	9.666	5.925	1.372	0.442	0.137	0.041
USC/Downtown L.A.	120	13.661	7.415	4.579	1.119	0.394	0.132	0.040

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
USC/Downtown L.A.	130	10.902	6.259	3.948	1.000	0.371	0.129	0.040
USC/Downtown L.A.	140	9.581	5.668	3.614	0.939	0.361	0.128	0.040
USC/Downtown L.A.	150	9.017	5.315	3.339	0.874	0.347	0.128	0.040
USC/Downtown L.A.	160	8.915	5.111	3.167	0.814	0.335	0.128	0.039
USC/Downtown L.A.	170	9.400	5.156	3.193	0.798	0.328	0.128	0.039
USC/Downtown L.A.	180	10.331	5.508	3.413	0.820	0.326	0.127	0.039
USC/Downtown L.A.	190	11.199	6.069	3.775	0.912	0.343	0.127	0.039
USC/Downtown L.A.	200	11.548	6.385	3.991	1.000	0.364	0.128	0.039
USC/Downtown L.A.	210	11.419	6.236	3.920	1.009	0.368	0.128	0.039
USC/Downtown L.A.	220	10.860	5.799	3.625	0.926	0.355	0.127	0.039
USC/Downtown L.A.	230	10.167	5.390	3.322	0.868	0.347	0.128	0.039
USC/Downtown L.A.	240	9.851	5.197	3.201	0.844	0.343	0.128	0.039
USC/Downtown L.A.	250	10.020	5.275	3.249	0.858	0.347	0.129	0.040
USC/Downtown L.A.	260	10.764	5.631	3.439	0.893	0.353	0.129	0.040
USC/Downtown L.A.	270	11.494	6.104	3.755	0.970	0.363	0.130	0.040
USC/Downtown L.A.	280	11.879	6.341	3.929	1.026	0.377	0.131	0.040
USC/Downtown L.A.	290	11.678	6.188	3.844	0.994	0.372	0.130	0.040
USC/Downtown L.A.	300	11.096	5.803	3.550	0.920	0.359	0.130	0.040
USC/Downtown L.A.	310	10.406	5.435	3.325	0.870	0.351	0.130	0.040
USC/Downtown L.A.	320	9.778	5.126	3.162	0.837	0.346	0.129	0.040
USC/Downtown L.A.	330	9.187	4.887	2.993	0.801	0.338	0.129	0.040
USC/Downtown L.A.	340	8.666	4.666	2.851	0.759	0.329	0.129	0.040
USC/Downtown L.A.	350	8.226	4.483	2.747	0.729	0.322	0.128	0.040
USC/Downtown L.A.	360	7.931	4.394	2.689	0.704	0.316	0.128	0.039
Van Nuys Arpt.	10	7.308	4.096	2.608	0.693	0.294	0.114	0.035
Van Nuys Arpt.	20	6.654	3.889	2.465	0.668	0.281	0.108	0.033
Van Nuys Arpt.	30	6.514	3.829	2.442	0.669	0.277	0.104	0.032
Van Nuys Arpt.	40	6.590	3.870	2.482	0.681	0.278	0.103	0.032
Van Nuys Arpt.	50	6.857	3.995	2.552	0.700	0.282	0.104	0.032
Van Nuys Arpt.	60	7.522	4.280	2.725	0.739	0.292	0.106	0.032
Van Nuys Arpt.	70	8.714	4.912	3.132	0.834	0.313	0.110	0.034
Van Nuys Arpt.	80	10.486	5.904	3.761	0.989	0.347	0.114	0.035
Van Nuys Arpt.	90	12.121	6.862	4.405	1.157	0.375	0.118	0.037
Van Nuys Arpt.	100	13.086	7.385	4.725	1.224	0.393	0.120	0.037
Van Nuys Arpt.	110	13.199	7.453	4.815	1.249	0.399	0.120	0.037

Table 2: Annual Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{ton/yr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Van Nuys Arpt.	120	12.821	7.276	4.695	1.214	0.392	0.118	0.036
Van Nuys Arpt.	130	12.232	6.950	4.494	1.168	0.381	0.116	0.036
Van Nuys Arpt.	140	11.568	6.539	4.260	1.108	0.373	0.116	0.035
Van Nuys Arpt.	150	10.900	6.213	4.011	1.057	0.366	0.120	0.037
Van Nuys Arpt.	160	10.318	5.883	3.783	0.990	0.361	0.126	0.039
Van Nuys Arpt.	170	9.793	5.508	3.528	0.916	0.352	0.132	0.041
Van Nuys Arpt.	180	8.749	4.881	3.106	0.801	0.330	0.131	0.041
Van Nuys Arpt.	190	7.325	4.055	2.590	0.709	0.312	0.124	0.038
Van Nuys Arpt.	200	6.095	3.550	2.273	0.649	0.291	0.115	0.035
Van Nuys Arpt.	210	5.585	3.291	2.105	0.608	0.273	0.108	0.033
Van Nuys Arpt.	220	5.391	3.173	2.026	0.585	0.263	0.104	0.032
Van Nuys Arpt.	230	5.358	3.158	2.017	0.586	0.261	0.102	0.032
Van Nuys Arpt.	240	5.562	3.221	2.067	0.600	0.264	0.103	0.032
Van Nuys Arpt.	250	6.141	3.468	2.226	0.637	0.276	0.106	0.032
Van Nuys Arpt.	260	7.517	4.139	2.628	0.740	0.306	0.114	0.035
Van Nuys Arpt.	270	9.582	5.285	3.371	0.947	0.361	0.128	0.039
Van Nuys Arpt.	280	11.940	6.646	4.251	1.172	0.426	0.146	0.045
Van Nuys Arpt.	290	13.781	7.748	5.036	1.390	0.492	0.162	0.051
Van Nuys Arpt.	300	14.699	8.257	5.318	1.452	0.519	0.171	0.053
Van Nuys Arpt.	310	14.663	8.126	5.188	1.399	0.512	0.173	0.053
Van Nuys Arpt.	320	13.864	7.557	4.837	1.295	0.489	0.167	0.050
Van Nuys Arpt.	330	12.590	6.864	4.320	1.158	0.447	0.158	0.047
Van Nuys Arpt.	340	11.154	6.065	3.794	1.002	0.399	0.146	0.044
Van Nuys Arpt.	350	9.767	5.290	3.330	0.873	0.355	0.134	0.040
Van Nuys Arpt.	360	8.435	4.601	2.900	0.751	0.314	0.123	0.037

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Azusa	10	433.580	276.782	196.085	54.156	10.231	2.277	0.686
Azusa	20	467.766	288.074	205.455	59.742	12.978	2.473	0.736
Azusa	30	510.124	323.855	228.526	68.556	16.279	2.398	0.663
Azusa	40	481.466	308.540	218.634	66.134	15.775	2.781	0.722
Azusa	50	511.151	318.042	222.273	67.045	15.589	4.757	1.427
Azusa	60	538.165	318.042	225.857	68.822	16.055	4.757	1.427
Azusa	70	586.371	339.921	237.971	71.847	17.600	5.328	1.627
Azusa	80	565.047	340.581	236.999	72.081	17.010	5.037	1.489
Azusa	90	542.467	336.756	235.966	70.065	15.892	3.069	0.974
Azusa	100	614.922	349.672	238.565	72.586	17.833	5.365	1.636
Azusa	110	607.164	355.932	231.982	70.431	18.908	5.640	1.716
Azusa	120	527.612	317.347	225.746	68.708	16.022	4.386	1.116
Azusa	130	492.207	311.400	220.306	66.929	15.927	2.557	0.717
Azusa	140	473.942	305.203	217.901	66.167	15.365	2.544	0.704
Azusa	150	509.106	323.265	228.171	68.515	16.279	3.978	1.226
Azusa	160	488.820	308.533	216.918	62.076	13.850	3.858	1.230
Azusa	170	474.521	294.724	205.088	55.785	10.957	2.824	0.871
Azusa	180	447.019	272.619	188.262	49.244	7.846	2.433	0.707
Azusa	190	438.760	279.736	198.311	53.940	10.326	2.778	0.684
Azusa	200	477.243	299.939	211.343	60.724	13.607	3.983	1.268
Azusa	210	485.428	308.451	217.084	65.677	15.328	3.996	1.231
Azusa	220	478.712	305.976	218.563	66.452	15.436	2.191	0.662
Azusa	230	491.823	312.849	220.538	66.848	15.768	1.484	0.435
Azusa	240	492.745	315.951	224.802	68.480	15.976	1.442	0.435
Azusa	250	514.036	327.024	231.450	70.431	16.494	2.544	0.754
Azusa	260	537.949	335.881	236.425	71.897	17.161	2.717	0.843
Azusa	270	536.017	337.025	236.135	70.047	15.883	3.628	0.930
Azusa	280	630.768	364.745	235.829	71.699	18.944	5.618	1.736
Azusa	290	544.213	340.528	238.086	71.613	17.152	4.114	1.022
Azusa	300	534.678	336.959	236.612	71.024	16.904	1.958	0.582
Azusa	310	483.645	309.306	220.574	67.081	15.603	1.871	0.522
Azusa	320	494.781	314.487	221.905	66.528	15.826	1.508	0.435
Azusa	330	471.888	301.467	212.957	64.335	15.247	2.520	0.685
Azusa	340	449.591	290.486	207.638	60.450	13.133	2.896	0.853

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Azusa	350	436.092	278.335	196.824	55.810	10.244	2.160	0.662
Azusa	360	421.269	266.487	187.160	48.989	7.785	2.856	0.864
Banning	10	554.346	364.800	262.791	71.439	14.362	4.446	1.659
Banning	20	596.001	396.902	288.965	86.236	18.404	4.725	1.752
Banning	30	594.233	397.580	290.305	90.953	20.925	4.483	1.647
Banning	40	612.146	406.329	295.145	91.478	20.955	4.546	1.674
Banning	50	625.483	415.541	302.092	94.277	21.675	4.728	1.745
Banning	60	683.136	426.510	309.257	96.568	22.264	4.818	1.776
Banning	70	721.488	454.938	322.115	100.376	23.237	4.831	1.782
Banning	80	720.974	468.071	334.658	103.656	24.088	4.901	1.813
Banning	90	731.700	471.192	334.277	100.346	22.355	4.872	1.805
Banning	100	717.088	465.196	332.446	102.900	23.912	4.770	1.758
Banning	110	738.775	464.251	323.879	97.986	22.661	4.856	1.795
Banning	120	716.795	443.738	315.825	96.733	22.756	4.717	1.741
Banning	130	623.234	412.909	299.427	92.896	21.368	4.686	1.730
Banning	140	610.281	406.098	295.717	92.404	21.251	4.582	1.689
Banning	150	600.895	402.542	294.187	92.294	21.227	4.543	1.675
Banning	160	574.150	381.015	276.699	82.214	17.582	4.453	1.651
Banning	170	571.386	375.988	271.119	73.971	14.616	4.583	1.711
Banning	180	573.584	371.358	263.553	63.917	12.582	4.546	1.696
Banning	190	579.439	378.212	270.892	72.578	14.544	4.577	1.705
Banning	200	591.171	393.751	286.609	85.436	18.233	4.562	1.695
Banning	210	602.800	403.740	295.097	92.684	21.326	4.794	1.771
Banning	220	613.939	408.986	297.907	93.002	21.352	4.687	1.730
Banning	230	627.951	417.714	304.001	95.146	21.898	4.699	1.735
Banning	240	646.658	427.608	309.808	96.638	22.273	4.657	1.722
Banning	250	666.322	434.388	311.527	95.955	22.134	4.655	1.715
Banning	260	715.455	463.999	331.529	102.590	23.840	4.693	1.727
Banning	270	714.319	458.232	324.190	97.132	21.705	4.687	1.730
Banning	280	684.571	444.547	317.276	97.635	22.656	4.645	1.709
Banning	290	658.096	426.825	304.750	93.424	21.699	4.650	1.708
Banning	300	644.285	425.800	308.381	96.133	22.154	4.571	1.684
Banning	310	606.459	402.794	292.735	91.342	21.036	4.586	1.691
Banning	320	606.234	401.343	291.014	89.925	20.584	4.934	1.829
Banning	330	580.172	385.842	280.465	87.481	20.170	4.877	1.807

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Banning	340	580.914	383.135	276.663	80.992	17.291	4.410	1.610
Banning	350	553.212	356.598	252.231	70.550	13.649	4.506	1.675
Banning	360	549.834	354.097	250.074	59.580	12.358	4.732	1.760
Burbank Arpt.	10	541.054	352.228	252.106	68.460	13.057	3.552	1.317
Burbank Arpt.	20	578.562	378.340	271.184	78.469	16.812	3.563	1.315
Burbank Arpt.	30	557.610	366.833	266.238	83.004	19.163	3.437	1.258
Burbank Arpt.	40	575.304	377.234	271.670	83.533	19.283	3.415	1.250
Burbank Arpt.	50	588.731	386.506	278.806	86.076	19.882	3.396	1.239
Burbank Arpt.	60	615.120	399.190	286.845	88.691	20.543	3.513	1.282
Burbank Arpt.	70	641.687	415.706	296.760	90.909	21.052	3.571	1.274
Burbank Arpt.	80	660.244	424.449	301.817	93.097	21.747	3.597	1.306
Burbank Arpt.	90	687.435	434.806	304.744	89.865	20.223	3.542	1.298
Burbank Arpt.	100	672.130	432.422	307.495	94.765	22.143	3.632	1.327
Burbank Arpt.	110	635.094	407.801	292.012	90.100	20.953	3.603	1.318
Burbank Arpt.	120	604.909	392.453	282.115	87.634	20.295	3.596	1.317
Burbank Arpt.	130	613.604	401.912	289.017	88.758	20.526	3.608	1.320
Burbank Arpt.	140	576.286	377.054	271.074	83.020	19.160	3.648	1.339
Burbank Arpt.	150	569.984	373.168	268.503	83.053	19.136	3.627	1.330
Burbank Arpt.	160	616.124	398.931	283.546	80.611	17.228	3.493	1.287
Burbank Arpt.	170	599.553	382.886	268.786	73.996	13.363	3.554	1.282
Burbank Arpt.	180	554.869	355.187	249.758	59.157	9.772	3.364	1.246
Burbank Arpt.	190	542.899	353.276	252.966	68.443	13.083	3.400	1.257
Burbank Arpt.	200	553.559	364.262	263.019	77.523	16.662	3.452	1.268
Burbank Arpt.	210	566.089	369.143	267.499	83.140	19.201	3.320	1.203
Burbank Arpt.	220	576.031	377.598	271.814	83.303	19.237	3.560	1.298
Burbank Arpt.	230	602.883	397.805	287.167	88.591	20.495	4.829	1.320
Burbank Arpt.	240	638.055	409.069	289.104	87.266	20.196	3.846	1.312
Burbank Arpt.	250	634.772	411.620	294.363	90.784	21.104	3.542	1.289
Burbank Arpt.	260	661.431	425.245	302.242	92.953	21.708	3.503	1.277
Burbank Arpt.	270	672.155	430.127	304.179	91.056	20.408	3.541	1.295
Burbank Arpt.	280	648.430	414.348	294.553	90.935	21.312	3.610	1.318
Burbank Arpt.	290	626.525	407.193	291.818	90.277	20.967	3.596	1.316
Burbank Arpt.	300	599.500	390.215	279.668	85.626	19.768	3.607	1.322
Burbank Arpt.	310	579.116	378.881	272.313	84.388	19.476	3.610	1.323
Burbank Arpt.	320	590.622	390.245	282.052	86.973	20.109	3.567	1.306

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Burbank Arpt.	330	564.230	375.329	272.203	84.414	19.614	3.574	1.310
Burbank Arpt.	340	609.268	399.376	287.078	83.965	18.047	3.594	1.326
Burbank Arpt.	350	564.386	364.773	258.552	69.076	13.186	4.339	1.328
Burbank Arpt.	360	524.268	336.139	237.092	58.758	11.506	4.339	1.315
Central L.A.	10	458.924	256.779	161.946	40.115	10.961	3.766	1.235
Central L.A.	20	403.176	223.906	156.117	44.204	10.032	3.042	0.841
Central L.A.	30	368.585	220.870	152.750	45.912	10.970	2.957	0.841
Central L.A.	40	378.495	238.491	167.689	50.144	12.037	2.765	0.903
Central L.A.	50	373.399	233.364	162.877	48.107	11.583	2.267	0.712
Central L.A.	60	386.567	237.565	164.019	48.339	11.583	2.911	0.945
Central L.A.	70	390.714	241.397	167.478	49.932	12.087	2.416	0.766
Central L.A.	80	414.962	251.547	174.822	52.845	12.897	2.918	0.945
Central L.A.	90	409.895	249.212	171.563	50.272	11.874	2.616	0.786
Central L.A.	100	406.610	250.177	173.193	51.862	12.650	2.781	0.879
Central L.A.	110	401.968	245.932	170.342	50.645	12.262	1.665	0.479
Central L.A.	120	389.493	242.901	169.770	50.791	12.244	1.512	0.411
Central L.A.	130	366.688	226.574	157.332	47.045	11.251	2.004	0.496
Central L.A.	140	371.073	233.737	164.267	49.093	11.804	2.473	0.706
Central L.A.	150	361.926	226.270	158.334	47.011	11.326	2.194	0.650
Central L.A.	160	371.758	231.657	161.767	45.892	10.362	1.882	0.574
Central L.A.	170	362.817	224.408	155.788	43.725	8.212	1.801	0.494
Central L.A.	180	350.878	213.518	146.505	36.475	6.085	1.536	0.445
Central L.A.	190	360.185	221.110	152.318	40.059	8.195	1.276	0.399
Central L.A.	200	371.554	231.583	161.771	45.985	10.382	1.454	0.432
Central L.A.	210	373.431	234.286	164.258	48.856	11.738	1.977	0.555
Central L.A.	220	373.121	233.474	163.844	48.785	11.730	1.977	0.632
Central L.A.	230	379.190	237.886	166.780	49.800	11.978	1.391	0.399
Central L.A.	240	395.634	246.673	172.205	51.315	12.352	1.768	0.543
Central L.A.	250	401.306	249.544	174.102	52.382	12.687	1.709	0.495
Central L.A.	260	398.143	244.435	169.665	51.033	12.345	2.741	0.832
Central L.A.	270	396.548	242.555	167.680	49.202	11.470	2.392	0.657
Central L.A.	280	415.222	256.352	178.107	53.786	13.103	2.139	0.665
Central L.A.	290	412.005	255.325	177.788	53.312	12.879	1.911	0.637
Central L.A.	300	394.906	243.682	168.845	50.024	12.116	1.506	0.399
Central L.A.	310	371.185	231.695	161.634	47.728	11.507	2.252	0.636

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Central L.A.	320	378.480	238.283	167.455	50.036	12.008	2.030	0.533
Central L.A.	330	363.531	224.012	154.343	46.045	11.000	2.349	0.740
Central L.A.	340	338.080	212.744	149.555	43.531	9.588	2.203	0.657
Central L.A.	350	331.086	206.685	144.388	40.762	7.643	2.457	0.807
Central L.A.	360	377.507	205.938	140.780	36.081	6.938	2.734	0.721
Chino Arpt.	10	642.820	428.216	312.459	86.815	18.768	6.392	2.409
Chino Arpt.	20	658.643	440.731	321.231	97.027	21.657	6.361	2.388
Chino Arpt.	30	679.461	451.408	327.573	104.315	23.958	6.355	2.375
Chino Arpt.	40	669.257	451.269	330.861	104.267	23.956	6.476	2.421
Chino Arpt.	50	713.376	475.740	344.156	106.218	24.407	6.423	2.399
Chino Arpt.	60	709.037	473.530	344.838	108.750	25.052	6.489	2.407
Chino Arpt.	70	771.709	511.866	369.159	114.255	26.321	6.422	2.400
Chino Arpt.	80	787.976	518.345	373.529	117.083	27.169	6.488	2.419
Chino Arpt.	90	813.547	528.522	376.868	113.774	25.509	6.412	2.399
Chino Arpt.	100	784.545	516.206	371.538	115.710	26.860	6.516	2.433
Chino Arpt.	110	781.782	514.951	368.553	112.053	25.746	6.442	2.405
Chino Arpt.	120	751.814	505.139	368.673	116.136	26.748	6.422	2.400
Chino Arpt.	130	682.399	458.600	335.529	107.116	24.647	6.418	2.401
Chino Arpt.	140	699.885	474.511	347.812	109.316	25.162	6.379	2.384
Chino Arpt.	150	725.822	480.500	345.576	107.154	24.636	6.433	2.405
Chino Arpt.	160	652.541	434.845	318.104	96.883	21.896	6.284	2.357
Chino Arpt.	170	675.411	439.337	312.013	85.807	18.746	6.016	2.263
Chino Arpt.	180	675.411	439.337	311.114	80.185	16.344	6.311	2.382
Chino Arpt.	190	678.733	450.371	324.577	89.041	18.892	6.200	2.331
Chino Arpt.	200	694.365	464.951	337.163	100.011	21.655	6.299	2.354
Chino Arpt.	210	697.271	469.451	341.698	104.959	23.890	6.548	2.452
Chino Arpt.	220	742.258	501.383	367.149	115.339	26.455	6.331	2.366
Chino Arpt.	230	733.230	495.541	362.154	113.704	26.227	6.370	2.372
Chino Arpt.	240	756.945	505.687	366.429	113.449	26.057	6.343	2.358
Chino Arpt.	250	824.293	542.745	390.087	120.048	27.515	6.413	2.396
Chino Arpt.	260	793.377	519.273	372.869	116.455	27.034	6.446	2.392
Chino Arpt.	270	858.058	559.710	399.935	121.272	26.903	6.410	2.399
Chino Arpt.	280	792.414	518.142	373.586	117.465	27.263	6.305	2.349
Chino Arpt.	290	747.233	494.276	359.136	113.260	26.162	6.452	2.405
Chino Arpt.	300	747.004	501.161	365.297	114.666	26.374	6.241	2.329

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Chino Arpt.	310	728.322	485.528	351.550	107.460	24.462	6.212	2.321
Chino Arpt.	320	692.396	470.521	346.640	110.013	25.218	6.300	2.351
Chino Arpt.	330	658.701	444.741	328.257	105.077	24.218	6.396	2.390
Chino Arpt.	340	698.645	471.429	344.896	102.921	21.783	6.285	2.358
Chino Arpt.	350	679.521	451.753	326.532	88.800	18.792	6.188	2.329
Chino Arpt.	360	658.509	432.601	307.741	72.625	16.363	6.176	2.331
Desert Hot Springs Arpt.	10	616.051	411.060	299.674	83.098	19.813	6.741	2.533
Desert Hot Springs Arpt.	20	602.597	402.856	293.538	87.310	21.941	6.641	2.483
Desert Hot Springs Arpt.	30	647.392	433.381	315.602	98.303	23.991	6.795	2.549
Desert Hot Springs Arpt.	40	643.973	435.465	320.031	101.279	24.343	6.762	2.524
Desert Hot Springs Arpt.	50	655.740	432.912	314.644	98.330	24.729	6.792	2.543
Desert Hot Springs Arpt.	60	655.545	436.321	317.406	99.849	24.676	6.699	2.496
Desert Hot Springs Arpt.	70	674.313	448.026	325.319	102.144	25.515	6.642	2.484
Desert Hot Springs Arpt.	80	760.018	495.818	354.924	109.571	26.511	6.722	2.505
Desert Hot Springs Arpt.	90	757.749	491.091	350.540	106.194	25.657	6.801	2.550
Desert Hot Springs Arpt.	100	743.577	485.593	348.353	108.538	26.472	6.873	2.564
Desert Hot Springs Arpt.	110	695.010	459.705	332.992	104.606	25.722	6.790	2.534
Desert Hot Springs Arpt.	120	674.819	444.109	320.026	99.766	24.692	6.897	2.578
Desert Hot Springs Arpt.	130	644.117	433.517	317.848	100.698	24.472	7.102	2.656
Desert Hot Springs Arpt.	140	645.680	431.013	313.911	98.476	24.090	7.112	2.671
Desert Hot Springs Arpt.	150	673.601	449.706	326.197	99.766	24.155	7.015	2.632
Desert Hot Springs Arpt.	160	614.019	411.537	300.373	89.586	22.006	7.120	2.682
Desert Hot Springs Arpt.	170	603.086	402.742	293.212	81.153	19.660	6.989	2.645
Desert Hot Springs Arpt.	180	594.892	392.076	281.420	68.031	17.292	6.978	2.642
Desert Hot Springs Arpt.	190	616.760	407.582	294.161	80.603	19.622	6.934	2.622
Desert Hot Springs Arpt.	200	615.267	413.514	302.641	91.073	22.089	7.057	2.663
Desert Hot Springs Arpt.	210	609.461	409.584	300.702	95.822	24.064	6.791	2.545
Desert Hot Springs Arpt.	220	634.278	426.107	311.893	98.100	23.921	6.939	2.590
Desert Hot Springs Arpt.	230	641.944	427.461	313.074	99.815	24.604	6.751	2.526
Desert Hot Springs Arpt.	240	644.397	433.001	317.204	100.772	25.052	6.834	2.558
Desert Hot Springs Arpt.	250	654.935	431.954	311.615	98.551	25.660	6.832	2.559
Desert Hot Springs Arpt.	260	714.189	465.132	332.345	103.319	26.540	6.911	2.590
Desert Hot Springs Arpt.	270	741.377	483.935	346.776	105.777	25.500	6.624	2.480
Desert Hot Springs Arpt.	280	731.496	480.302	345.713	108.156	26.261	7.150	2.536
Desert Hot Springs Arpt.	290	693.493	462.531	336.871	106.711	25.818	6.951	2.603

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Desert Hot Springs Arpt.	300	658.657	436.567	316.313	98.620	24.760	7.035	2.630
Desert Hot Springs Arpt.	310	639.979	428.610	313.687	98.949	24.476	6.995	2.626
Desert Hot Springs Arpt.	320	612.227	407.998	298.945	93.971	24.229	7.011	2.620
Desert Hot Springs Arpt.	330	622.008	419.929	308.241	97.350	23.995	7.065	2.655
Desert Hot Springs Arpt.	340	595.034	401.576	295.061	89.424	22.254	6.942	2.616
Desert Hot Springs Arpt.	350	601.417	399.314	289.481	79.570	19.679	6.805	2.558
Desert Hot Springs Arpt.	360	593.815	384.390	272.049	66.295	17.432	6.941	2.631
Fontana	10	595.555	377.378	264.406	69.409	13.551	2.997	0.914
Fontana	20	558.453	367.146	265.183	78.168	16.718	2.565	0.928
Fontana	30	568.348	375.919	272.629	84.547	19.462	2.542	0.908
Fontana	40	607.773	388.602	277.117	85.655	19.696	3.007	0.918
Fontana	50	643.346	410.444	290.140	86.977	20.279	3.827	1.179
Fontana	60	655.366	415.194	292.242	88.447	20.483	3.665	1.100
Fontana	70	666.016	414.313	296.167	91.137	21.102	4.890	1.350
Fontana	80	703.606	437.337	304.288	93.426	21.768	4.890	1.350
Fontana	90	685.202	432.209	305.001	91.089	20.370	3.357	1.010
Fontana	100	670.533	429.270	304.755	93.515	21.771	4.644	1.303
Fontana	110	639.042	413.596	295.608	90.943	21.056	3.432	0.930
Fontana	120	632.945	396.839	285.370	88.128	20.345	2.580	0.923
Fontana	130	664.414	425.919	301.345	89.954	20.859	2.521	0.897
Fontana	140	594.281	383.149	277.041	85.623	19.687	2.578	0.907
Fontana	150	599.345	381.320	271.172	83.925	19.315	3.542	0.909
Fontana	160	612.520	391.623	276.191	78.206	16.947	5.360	1.478
Fontana	170	632.113	401.589	282.922	75.204	14.649	3.542	0.889
Fontana	180	593.428	368.582	255.055	61.815	10.057	2.499	0.913
Fontana	190	599.418	378.157	266.689	71.025	13.936	5.166	1.344
Fontana	200	599.418	377.714	266.840	78.838	18.321	6.007	1.720
Fontana	210	635.062	400.025	278.641	84.740	19.518	3.268	0.905
Fontana	220	649.915	414.477	292.037	85.964	19.848	2.949	0.924
Fontana	230	673.775	431.912	305.588	91.200	21.134	4.569	1.258
Fontana	240	686.103	433.875	305.162	91.589	21.375	4.186	1.087
Fontana	250	698.135	440.737	309.706	93.568	22.004	2.527	0.898
Fontana	260	735.305	460.142	321.242	96.745	22.843	2.543	0.903
Fontana	270	680.570	433.174	305.581	91.132	20.365	2.523	0.901
Fontana	280	669.126	427.978	303.768	93.183	21.693	2.589	0.891

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Fontana	290	637.369	412.604	294.999	90.886	21.059	2.983	0.903
Fontana	300	609.149	397.720	286.050	88.360	20.399	2.983	0.889
Fontana	310	657.164	415.923	291.100	86.140	19.831	2.931	0.889
Fontana	320	671.836	433.820	308.972	93.549	21.752	2.519	0.899
Fontana	330	596.176	375.953	272.453	84.453	19.436	4.087	1.207
Fontana	340	584.230	370.838	265.321	78.206	16.722	3.610	1.000
Fontana	350	553.310	355.549	254.271	69.346	13.044	2.471	0.897
Fontana	360	582.813	365.363	253.511	61.815	9.583	2.514	0.918
Fullerton Arpt.	10	525.005	334.672	238.339	64.012	12.246	3.316	0.944
Fullerton Arpt.	20	557.124	353.135	252.693	73.676	15.895	3.750	1.049
Fullerton Arpt.	30	572.146	367.322	261.743	80.101	18.510	3.414	0.998
Fullerton Arpt.	40	627.931	407.311	291.064	88.334	20.424	3.481	0.969
Fullerton Arpt.	50	593.830	380.314	268.901	80.659	18.613	3.481	0.969
Fullerton Arpt.	60	594.858	381.074	271.852	83.062	19.216	2.529	0.775
Fullerton Arpt.	70	634.716	403.605	284.740	86.230	20.174	2.718	0.827
Fullerton Arpt.	80	635.022	401.222	282.655	86.473	20.215	2.557	0.813
Fullerton Arpt.	90	663.283	414.079	288.279	84.435	19.035	2.753	0.818
Fullerton Arpt.	100	675.205	427.228	300.456	91.209	21.360	3.119	0.951
Fullerton Arpt.	110	619.212	394.592	279.182	84.761	19.713	2.602	0.790
Fullerton Arpt.	120	594.910	383.434	273.541	83.422	19.303	2.690	0.819
Fullerton Arpt.	130	594.651	385.436	274.916	83.183	19.281	2.145	0.751
Fullerton Arpt.	140	623.123	403.084	287.325	86.605	19.982	2.367	0.771
Fullerton Arpt.	150	576.506	367.470	263.186	80.248	18.574	2.642	0.771
Fullerton Arpt.	160	576.506	367.470	258.761	75.528	16.070	3.928	1.069
Fullerton Arpt.	170	532.633	340.325	242.018	66.266	12.434	2.750	0.794
Fullerton Arpt.	180	554.115	345.538	238.696	59.212	8.951	2.281	0.752
Fullerton Arpt.	190	579.269	369.050	259.861	68.490	13.259	2.309	0.719
Fullerton Arpt.	200	565.356	366.331	261.786	75.924	16.318	2.076	0.737
Fullerton Arpt.	210	595.546	387.817	277.954	84.562	19.499	2.118	0.746
Fullerton Arpt.	220	572.559	373.643	268.128	81.923	18.938	2.017	0.717
Fullerton Arpt.	230	572.990	370.075	264.598	80.550	18.590	2.123	0.751
Fullerton Arpt.	240	600.959	386.486	274.545	83.019	19.244	2.742	0.781
Fullerton Arpt.	250	613.452	391.759	277.664	84.484	19.619	2.843	0.838
Fullerton Arpt.	260	645.870	408.495	287.624	87.556	20.508	2.254	0.791
Fullerton Arpt.	270	636.814	401.552	281.815	83.641	18.784	2.664	0.792

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Fullerton Arpt.	280	641.722	405.069	284.863	86.605	20.309	3.417	1.061
Fullerton Arpt.	290	612.941	389.952	276.159	84.380	19.643	3.797	1.104
Fullerton Arpt.	300	624.531	401.216	284.659	85.904	19.899	2.413	0.755
Fullerton Arpt.	310	609.877	392.743	279.003	83.570	19.225	2.218	0.780
Fullerton Arpt.	320	619.069	398.742	283.094	84.576	19.504	2.689	0.762
Fullerton Arpt.	330	590.374	371.235	260.143	78.967	18.220	2.689	0.775
Fullerton Arpt.	340	540.904	350.722	250.857	72.899	15.660	3.011	0.861
Fullerton Arpt.	350	529.475	339.387	241.264	64.591	12.414	2.678	0.819
Fullerton Arpt.	360	516.116	325.842	227.460	58.332	8.708	2.954	0.868
Hawthorne Arpt.	10	514.012	332.066	236.785	63.747	12.249	1.864	0.667
Hawthorne Arpt.	20	530.824	343.533	247.007	72.430	15.598	2.177	0.644
Hawthorne Arpt.	30	550.972	358.509	257.044	78.728	18.216	2.730	0.743
Hawthorne Arpt.	40	562.194	368.460	264.675	80.954	18.820	3.308	0.906
Hawthorne Arpt.	50	570.513	370.223	265.147	80.996	18.733	3.144	0.928
Hawthorne Arpt.	60	582.449	374.945	267.638	82.103	19.036	2.669	0.746
Hawthorne Arpt.	70	606.229	388.947	276.336	84.392	19.633	2.900	0.893
Hawthorne Arpt.	80	626.651	398.669	281.745	86.178	20.189	2.707	0.761
Hawthorne Arpt.	90	625.889	397.677	280.269	83.676	18.838	2.982	0.865
Hawthorne Arpt.	100	622.488	395.017	278.901	85.402	20.058	2.031	0.687
Hawthorne Arpt.	110	641.584	409.857	289.986	88.034	20.510	3.025	0.884
Hawthorne Arpt.	120	585.272	377.689	269.419	82.255	19.092	2.429	0.658
Hawthorne Arpt.	130	569.815	369.734	264.366	80.566	18.692	1.936	0.680
Hawthorne Arpt.	140	559.409	361.095	259.599	79.519	18.361	1.931	0.679
Hawthorne Arpt.	150	565.898	368.396	263.926	80.106	18.470	1.892	0.662
Hawthorne Arpt.	160	537.302	348.900	249.932	72.833	15.697	1.923	0.685
Hawthorne Arpt.	170	523.917	338.942	241.508	65.550	12.568	1.893	0.629
Hawthorne Arpt.	180	503.721	318.747	223.846	58.110	8.671	1.836	0.661
Hawthorne Arpt.	190	519.397	334.440	237.845	63.909	12.300	1.825	0.654
Hawthorne Arpt.	200	546.776	355.361	254.383	74.063	15.973	1.766	0.629
Hawthorne Arpt.	210	546.705	354.200	254.101	78.098	18.056	4.053	0.974
Hawthorne Arpt.	220	554.677	360.863	258.708	79.060	18.358	4.858	1.304
Hawthorne Arpt.	230	562.160	364.705	261.610	80.148	18.529	2.368	0.654
Hawthorne Arpt.	240	582.472	375.399	267.638	82.103	19.036	2.508	0.738
Hawthorne Arpt.	250	599.180	382.983	271.602	83.145	19.338	2.634	0.746
Hawthorne Arpt.	260	624.632	397.667	281.071	85.986	20.154	1.942	0.676

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Hawthorne Arpt.	270	629.694	398.270	280.084	83.503	18.838	2.042	0.692
Hawthorne Arpt.	280	619.889	393.652	277.692	84.424	19.721	2.015	0.692
Hawthorne Arpt.	290	606.451	387.577	274.550	83.534	19.464	2.031	0.679
Hawthorne Arpt.	300	583.728	376.852	268.866	82.037	19.020	2.039	0.687
Hawthorne Arpt.	310	594.130	383.905	273.481	82.686	19.170	2.996	0.844
Hawthorne Arpt.	320	552.100	355.399	254.474	77.758	17.976	2.279	0.680
Hawthorne Arpt.	330	553.507	359.399	257.323	78.276	18.099	2.585	0.748
Hawthorne Arpt.	340	549.534	357.058	255.071	73.921	16.004	2.488	0.712
Hawthorne Arpt.	350	515.084	332.354	236.846	65.593	12.204	1.898	0.681
Hawthorne Arpt.	360	496.248	314.588	220.472	55.587	8.609	1.856	0.668
John Wayne Int'l Arpt.	10	672.584	448.902	327.400	90.651	16.954	5.348	2.008
John Wayne Int'l Arpt.	20	684.277	455.972	331.174	100.572	21.353	5.438	2.034
John Wayne Int'l Arpt.	30	694.227	470.709	347.135	110.291	25.263	5.453	2.028
John Wayne Int'l Arpt.	40	706.756	477.146	350.068	110.588	25.341	5.471	2.038
John Wayne Int'l Arpt.	50	749.656	506.504	371.481	117.427	26.944	5.469	2.036
John Wayne Int'l Arpt.	60	747.612	499.657	363.834	114.205	26.226	5.463	2.032
John Wayne Int'l Arpt.	70	784.338	519.645	376.088	118.198	27.276	5.416	2.013
John Wayne Int'l Arpt.	80	869.571	571.658	410.973	128.176	29.651	6.062	2.011
John Wayne Int'l Arpt.	90	858.802	559.722	399.805	121.070	26.855	5.452	2.029
John Wayne Int'l Arpt.	100	833.291	543.403	389.033	122.093	28.297	5.391	1.997
John Wayne Int'l Arpt.	110	787.108	521.703	377.701	118.210	27.229	5.327	1.974
John Wayne Int'l Arpt.	120	745.760	491.031	357.709	113.562	26.087	5.336	1.977
John Wayne Int'l Arpt.	130	724.852	488.513	357.906	112.832	25.829	5.473	2.037
John Wayne Int'l Arpt.	140	706.012	474.936	347.541	110.416	25.271	5.286	1.965
John Wayne Int'l Arpt.	150	704.566	469.779	341.396	108.245	24.874	5.479	2.041
John Wayne Int'l Arpt.	160	679.070	456.664	335.596	101.386	21.509	5.225	1.951
John Wayne Int'l Arpt.	170	677.735	447.792	324.677	89.106	16.684	5.243	1.968
John Wayne Int'l Arpt.	180	658.425	435.075	312.482	75.529	13.949	5.016	1.879
John Wayne Int'l Arpt.	190	663.378	438.551	320.360	88.977	16.647	5.197	1.936
John Wayne Int'l Arpt.	200	679.578	454.315	330.584	99.726	21.186	5.351	1.993
John Wayne Int'l Arpt.	210	703.370	473.049	348.677	110.815	25.415	5.290	1.966
John Wayne Int'l Arpt.	220	684.206	461.165	339.671	107.759	24.676	5.431	2.020
John Wayne Int'l Arpt.	230	712.029	482.109	354.715	112.850	25.881	5.405	2.011
John Wayne Int'l Arpt.	240	746.784	495.189	359.199	111.542	25.580	5.429	2.014
John Wayne Int'l Arpt.	250	780.123	516.807	374.222	117.326	27.047	5.444	2.022

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
John Wayne Int'l Arpt.	260	822.658	538.223	386.169	120.130	27.805	5.434	2.016
John Wayne Int'l Arpt.	270	844.205	550.887	393.599	119.066	26.366	5.358	1.992
John Wayne Int'l Arpt.	280	823.780	543.240	391.875	122.773	28.398	5.480	2.033
John Wayne Int'l Arpt.	290	776.427	507.796	364.044	113.395	26.193	5.391	2.001
John Wayne Int'l Arpt.	300	726.295	490.217	359.843	114.644	26.380	5.391	2.003
John Wayne Int'l Arpt.	310	719.546	482.031	353.887	112.000	25.653	5.416	2.015
John Wayne Int'l Arpt.	320	702.156	473.574	348.395	110.323	25.236	5.381	2.003
John Wayne Int'l Arpt.	330	687.064	468.444	346.688	111.026	25.489	5.374	2.000
John Wayne Int'l Arpt.	340	686.520	463.780	340.188	102.409	21.722	5.349	1.998
John Wayne Int'l Arpt.	350	675.337	449.787	326.875	90.603	16.949	5.348	2.006
John Wayne Int'l Arpt.	360	654.879	427.582	306.953	73.901	14.214	5.332	2.003
Lake Elsinore	10	636.760	403.326	283.088	74.359	15.684	5.359	1.461
Lake Elsinore	20	625.700	403.902	287.331	83.141	18.128	4.361	1.051
Lake Elsinore	30	570.221	377.969	274.533	85.418	19.681	4.019	1.132
Lake Elsinore	40	655.738	412.641	287.053	85.940	19.763	3.905	1.040
Lake Elsinore	50	672.002	428.493	301.747	88.916	20.513	5.117	1.543
Lake Elsinore	60	700.117	445.534	313.813	93.552	21.718	3.068	1.051
Lake Elsinore	70	648.060	420.911	301.535	93.171	21.588	3.854	1.107
Lake Elsinore	80	671.257	431.070	306.377	94.255	21.961	3.386	1.023
Lake Elsinore	90	685.093	437.386	308.973	92.395	20.659	2.914	1.012
Lake Elsinore	100	673.177	432.455	307.427	94.606	22.043	2.999	1.043
Lake Elsinore	110	641.603	414.178	296.335	91.393	21.178	3.189	1.031
Lake Elsinore	120	617.332	401.714	289.277	89.528	20.672	3.745	1.036
Lake Elsinore	130	638.325	408.202	288.454	87.752	20.209	5.063	1.408
Lake Elsinore	140	666.795	430.069	306.035	92.479	21.513	5.885	1.625
Lake Elsinore	150	668.214	431.577	307.388	93.022	21.632	4.906	1.214
Lake Elsinore	160	643.136	410.065	288.832	81.409	17.745	3.869	1.165
Lake Elsinore	170	627.579	398.611	279.563	77.855	14.354	3.143	1.039
Lake Elsinore	180	600.062	373.940	258.680	62.191	10.117	2.911	1.016
Lake Elsinore	190	615.221	381.525	262.637	70.240	13.760	2.823	1.032
Lake Elsinore	200	659.608	424.340	301.215	86.617	18.763	2.840	1.029
Lake Elsinore	210	663.508	429.330	305.968	92.594	21.552	3.354	1.030
Lake Elsinore	220	623.978	401.975	284.530	85.862	19.747	2.915	1.052
Lake Elsinore	230	631.352	407.454	288.998	87.666	20.329	2.888	1.040
Lake Elsinore	240	646.089	406.425	288.257	89.028	20.540	4.365	1.191

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Lake Elsinore	250	710.866	435.906	304.074	91.128	21.377	3.924	1.015
Lake Elsinore	260	732.227	454.975	315.484	93.889	21.858	3.247	0.907
Lake Elsinore	270	717.379	444.254	308.488	91.523	20.763	2.916	1.053
Lake Elsinore	280	674.102	432.896	307.606	94.507	22.002	2.658	0.955
Lake Elsinore	290	668.206	428.447	302.988	92.245	21.789	2.833	1.014
Lake Elsinore	300	615.267	402.382	289.639	89.501	20.650	3.134	1.006
Lake Elsinore	310	643.741	414.338	293.540	87.814	20.432	3.829	1.017
Lake Elsinore	320	624.249	400.635	284.055	86.730	20.051	3.829	1.050
Lake Elsinore	330	614.059	394.279	278.695	86.320	19.888	3.594	1.051
Lake Elsinore	340	626.730	404.841	288.174	83.529	18.219	2.983	1.034
Lake Elsinore	350	561.500	361.045	258.946	70.182	13.335	3.416	1.016
Lake Elsinore	360	608.113	376.331	258.658	62.338	10.189	3.308	1.044
Long Beach Arpt.	10	561.864	368.062	266.119	73.148	15.861	5.377	1.787
Long Beach Arpt.	20	568.663	376.957	273.281	80.765	17.346	4.825	1.803
Long Beach Arpt.	30	578.747	386.111	282.832	89.227	20.600	4.775	1.770
Long Beach Arpt.	40	573.930	382.945	279.309	87.490	20.181	4.719	1.753
Long Beach Arpt.	50	600.972	396.822	287.085	88.667	20.389	4.825	1.790
Long Beach Arpt.	60	608.618	401.531	290.407	90.189	20.870	4.723	1.754
Long Beach Arpt.	70	636.495	416.971	300.375	93.642	21.771	4.747	1.756
Long Beach Arpt.	80	685.865	442.980	315.701	97.562	22.813	4.754	1.762
Long Beach Arpt.	90	693.527	445.966	317.426	95.973	21.451	4.843	1.800
Long Beach Arpt.	100	683.641	442.079	317.093	99.116	23.125	4.853	1.801
Long Beach Arpt.	110	662.380	427.858	303.807	95.205	22.116	4.796	1.779
Long Beach Arpt.	120	627.923	415.032	300.561	93.817	21.713	4.874	1.812
Long Beach Arpt.	130	613.124	399.384	289.849	90.519	20.870	4.845	1.801
Long Beach Arpt.	140	612.776	406.607	294.992	92.402	21.293	4.865	1.799
Long Beach Arpt.	150	593.134	397.271	289.452	90.361	20.933	4.804	1.787
Long Beach Arpt.	160	573.722	381.007	276.988	82.637	17.707	4.806	1.794
Long Beach Arpt.	170	561.254	369.045	265.902	72.898	14.049	4.712	1.764
Long Beach Arpt.	180	553.595	359.623	255.712	62.926	12.213	4.484	1.685
Long Beach Arpt.	190	592.449	387.971	278.560	76.021	14.469	4.525	1.696
Long Beach Arpt.	200	627.987	411.614	295.010	85.665	18.354	4.593	1.708
Long Beach Arpt.	210	575.765	386.312	282.637	88.889	20.514	4.653	1.725
Long Beach Arpt.	220	605.752	404.892	295.431	92.491	21.300	4.781	1.777
Long Beach Arpt.	230	606.743	400.120	291.671	91.643	21.189	5.729	1.747

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Long Beach Arpt.	240	687.635	452.494	325.678	100.495	23.269	4.699	1.743
Long Beach Arpt.	250	701.405	450.380	317.945	98.168	22.835	4.851	1.801
Long Beach Arpt.	260	689.597	446.988	320.348	99.634	23.221	4.721	1.749
Long Beach Arpt.	270	698.948	452.024	321.744	97.216	21.712	4.753	1.766
Long Beach Arpt.	280	699.315	450.848	320.131	98.277	22.937	4.778	1.769
Long Beach Arpt.	290	691.388	443.360	313.024	95.202	22.070	4.830	1.794
Long Beach Arpt.	300	625.467	412.914	298.726	93.292	21.604	4.795	1.781
Long Beach Arpt.	310	648.092	429.344	310.731	95.890	22.038	4.855	1.804
Long Beach Arpt.	320	592.319	393.929	286.612	89.434	20.625	4.831	1.797
Long Beach Arpt.	330	584.150	384.544	279.132	88.056	20.320	4.800	1.786
Long Beach Arpt.	340	569.299	380.223	277.276	82.969	17.781	4.805	1.795
Long Beach Arpt.	350	559.539	364.519	263.799	72.448	14.140	4.784	1.793
Long Beach Arpt.	360	559.539	361.978	256.504	66.872	12.479	4.755	1.788
Los Angeles Int'l Arpt.	10	524.309	343.509	247.218	67.434	14.102	4.786	1.795
Los Angeles Int'l Arpt.	20	525.659	344.867	250.963	75.306	16.211	4.805	1.794
Los Angeles Int'l Arpt.	30	557.611	368.902	266.822	82.151	19.000	4.811	1.788
Los Angeles Int'l Arpt.	40	567.866	375.357	271.838	83.923	19.324	4.833	1.794
Los Angeles Int'l Arpt.	50	555.677	366.342	265.941	82.979	19.194	4.861	1.809
Los Angeles Int'l Arpt.	60	572.781	374.771	271.636	84.975	19.719	4.891	1.817
Los Angeles Int'l Arpt.	70	608.763	397.144	285.299	88.594	20.638	4.923	1.825
Los Angeles Int'l Arpt.	80	634.590	411.301	293.970	91.283	21.362	4.913	1.822
Los Angeles Int'l Arpt.	90	650.555	417.801	296.104	89.135	19.995	4.899	1.824
Los Angeles Int'l Arpt.	100	632.373	405.683	288.973	89.653	20.959	4.960	1.841
Los Angeles Int'l Arpt.	110	604.793	393.080	282.629	87.798	20.433	4.841	1.798
Los Angeles Int'l Arpt.	120	577.878	377.385	272.358	85.495	19.858	4.907	1.824
Los Angeles Int'l Arpt.	130	548.860	363.684	264.414	82.728	19.138	4.798	1.779
Los Angeles Int'l Arpt.	140	551.873	365.153	265.005	82.449	19.059	4.743	1.765
Los Angeles Int'l Arpt.	150	535.862	356.837	259.886	81.222	18.811	4.826	1.796
Los Angeles Int'l Arpt.	160	531.963	351.845	254.994	75.643	16.298	4.833	1.804
Los Angeles Int'l Arpt.	170	517.601	336.477	242.314	66.447	13.996	4.805	1.796
Los Angeles Int'l Arpt.	180	508.330	329.034	233.677	57.189	12.645	4.825	1.814
Los Angeles Int'l Arpt.	190	512.158	336.791	242.877	66.416	14.195	4.783	1.793
Los Angeles Int'l Arpt.	200	529.070	349.210	254.128	75.970	16.366	4.853	1.812
Los Angeles Int'l Arpt.	210	539.389	358.287	260.418	81.104	18.787	4.824	1.794
Los Angeles Int'l Arpt.	220	552.269	364.247	264.757	82.821	19.163	4.853	1.804

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Los Angeles Int'l Arpt.	230	561.648	367.355	265.284	82.089	18.948	4.772	1.774
Los Angeles Int'l Arpt.	240	577.281	378.378	273.521	85.157	19.743	4.808	1.786
Los Angeles Int'l Arpt.	250	602.865	392.604	282.492	87.857	20.444	4.884	1.811
Los Angeles Int'l Arpt.	260	636.961	411.469	293.371	90.725	21.221	4.850	1.798
Los Angeles Int'l Arpt.	270	649.458	415.717	294.682	88.603	19.872	4.795	1.783
Los Angeles Int'l Arpt.	280	635.583	410.477	292.619	90.395	21.142	4.927	1.829
Los Angeles Int'l Arpt.	290	615.390	394.402	283.301	87.971	20.479	4.876	1.812
Los Angeles Int'l Arpt.	300	575.238	375.899	270.975	84.681	19.646	4.841	1.794
Los Angeles Int'l Arpt.	310	576.275	380.358	274.785	85.049	19.763	4.801	1.783
Los Angeles Int'l Arpt.	320	549.724	364.766	264.937	82.446	19.083	4.821	1.790
Los Angeles Int'l Arpt.	330	540.473	359.274	261.291	81.541	18.891	4.946	1.842
Los Angeles Int'l Arpt.	340	537.820	355.379	256.947	75.696	16.307	4.866	1.813
Los Angeles Int'l Arpt.	350	523.409	342.469	246.192	67.020	14.009	4.582	1.707
Los Angeles Int'l Arpt.	360	512.168	328.519	231.905	58.686	12.419	4.636	1.741
Mission Viejo	10	546.318	344.817	241.122	63.808	13.548	5.058	1.388
Mission Viejo	20	572.494	343.564	247.163	72.531	18.193	5.895	1.785
Mission Viejo	30	565.874	365.304	259.700	78.453	18.446	4.045	1.157
Mission Viejo	40	581.806	375.778	267.363	80.908	19.020	4.513	1.411
Mission Viejo	50	577.239	370.567	262.190	79.768	18.455	3.081	0.810
Mission Viejo	60	573.800	371.372	265.719	81.424	18.840	3.540	1.048
Mission Viejo	70	597.791	383.317	272.586	83.452	19.384	5.152	1.536
Mission Viejo	80	626.255	397.709	280.863	85.814	20.038	5.152	1.536
Mission Viejo	90	633.207	400.583	281.755	83.856	18.820	3.639	1.062
Mission Viejo	100	627.415	398.729	281.758	86.072	20.094	3.618	1.002
Mission Viejo	110	599.830	384.536	273.427	83.627	19.409	3.791	1.029
Mission Viejo	120	574.738	371.656	266.004	81.640	18.890	3.707	1.007
Mission Viejo	130	587.715	373.781	263.988	79.768	18.666	5.435	1.600
Mission Viejo	140	578.338	367.776	259.297	78.697	18.121	5.435	1.600
Mission Viejo	150	535.646	350.630	252.725	77.669	17.905	2.913	0.600
Mission Viejo	160	524.760	341.963	245.767	72.000	15.454	2.562	0.699
Mission Viejo	170	506.339	325.089	231.693	64.061	11.918	3.144	0.977
Mission Viejo	180	499.342	316.845	222.378	55.811	8.511	1.947	0.470
Mission Viejo	190	511.851	328.918	233.817	62.584	11.987	1.500	0.520
Mission Viejo	200	526.301	342.920	246.439	72.186	15.490	1.572	0.546
Mission Viejo	210	536.436	351.397	253.438	78.023	17.998	1.646	0.567

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Mission Viejo	220	578.811	371.161	263.252	79.430	18.692	2.907	0.611
Mission Viejo	230	593.698	378.853	267.791	80.403	18.874	5.306	1.611
Mission Viejo	240	598.736	383.232	270.943	81.810	19.308	4.967	1.449
Mission Viejo	250	602.267	387.241	275.788	84.533	19.631	2.370	0.575
Mission Viejo	260	628.255	400.216	283.110	86.502	20.192	1.657	0.556
Mission Viejo	270	634.709	401.066	281.997	83.820	18.804	3.130	0.880
Mission Viejo	280	626.255	397.709	281.028	85.941	20.079	4.294	1.315
Mission Viejo	290	614.176	388.852	273.697	83.829	19.646	3.694	1.034
Mission Viejo	300	575.513	371.681	265.963	81.510	18.849	2.012	0.556
Mission Viejo	310	624.468	399.667	283.169	85.409	20.002	2.694	0.793
Mission Viejo	320	549.546	357.454	256.909	78.697	18.121	3.576	1.111
Mission Viejo	330	574.008	366.978	259.854	78.305	18.355	4.741	1.467
Mission Viejo	340	541.271	348.804	247.595	72.374	15.782	3.565	0.997
Mission Viejo	350	552.198	332.630	237.132	64.938	13.910	5.483	1.497
Mission Viejo	360	579.253	338.189	232.376	57.604	14.954	5.989	1.741
Ontario Arpt.	10	649.504	429.317	309.962	85.052	19.102	6.234	2.350
Ontario Arpt.	20	652.071	441.825	325.423	98.883	21.703	6.485	2.441
Ontario Arpt.	30	678.047	451.873	326.037	100.921	24.070	6.448	2.409
Ontario Arpt.	40	666.527	442.956	321.979	103.669	23.887	6.476	2.423
Ontario Arpt.	50	694.737	455.955	327.177	105.008	24.263	6.455	2.416
Ontario Arpt.	60	693.489	463.020	340.308	108.604	25.022	6.496	2.427
Ontario Arpt.	70	769.133	510.561	369.258	115.357	26.695	6.545	2.444
Ontario Arpt.	80	792.792	518.811	372.411	115.909	26.879	6.497	2.425
Ontario Arpt.	90	807.524	524.613	373.884	112.789	25.739	6.520	2.440
Ontario Arpt.	100	799.188	522.771	375.576	117.152	27.156	6.435	2.400
Ontario Arpt.	110	778.701	494.883	358.216	113.632	26.275	6.458	2.414
Ontario Arpt.	120	707.846	472.323	343.826	107.921	24.838	6.447	2.410
Ontario Arpt.	130	681.123	452.332	327.590	104.979	24.390	6.448	2.410
Ontario Arpt.	140	657.305	445.039	327.248	103.265	24.113	6.431	2.396
Ontario Arpt.	150	648.905	442.670	327.696	105.075	28.218	8.934	2.675
Ontario Arpt.	160	670.531	453.979	333.516	100.791	21.785	6.430	2.415
Ontario Arpt.	170	688.415	460.366	334.656	92.160	18.987	6.338	2.387
Ontario Arpt.	180	626.400	411.989	296.445	71.719	16.420	6.214	2.339
Ontario Arpt.	190	671.731	451.230	328.246	90.595	19.029	6.348	2.382
Ontario Arpt.	200	667.587	441.475	323.373	98.383	21.755	6.400	2.401

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Ontario Arpt.	210	690.623	466.574	341.206	106.357	24.328	6.404	2.393
Ontario Arpt.	220	712.190	476.477	346.557	107.696	24.788	6.415	2.399
Ontario Arpt.	230	729.053	481.309	345.290	107.545	24.684	6.454	2.419
Ontario Arpt.	240	715.497	477.131	348.521	110.223	25.360	6.484	2.430
Ontario Arpt.	250	844.385	556.268	400.184	123.954	28.564	6.271	2.323
Ontario Arpt.	260	811.582	530.195	379.621	118.594	27.494	6.359	2.349
Ontario Arpt.	270	863.865	548.714	383.454	116.473	25.819	6.490	2.426
Ontario Arpt.	280	819.640	519.952	375.681	118.085	27.369	6.279	2.339
Ontario Arpt.	290	822.950	544.825	393.255	122.583	28.318	6.423	2.400
Ontario Arpt.	300	743.175	479.231	348.941	110.455	25.453	6.254	2.330
Ontario Arpt.	310	691.632	463.786	338.808	106.728	24.480	6.303	2.352
Ontario Arpt.	320	672.170	454.780	334.021	106.026	24.346	6.276	2.346
Ontario Arpt.	330	702.993	472.220	345.599	109.165	25.085	6.487	2.431
Ontario Arpt.	340	651.630	440.843	323.814	97.801	21.475	6.234	2.335
Ontario Arpt.	350	647.998	431.897	313.832	86.532	18.737	6.042	2.273
Ontario Arpt.	360	641.171	423.108	302.877	72.702	16.333	6.282	2.369
Palm Springs Arpt.	10	592.111	388.129	279.026	75.827	15.623	5.128	1.920
Palm Springs Arpt.	20	618.813	410.336	297.233	87.886	18.812	5.169	1.927
Palm Springs Arpt.	30	603.837	402.722	294.117	92.294	21.274	5.298	1.969
Palm Springs Arpt.	40	616.962	410.878	299.229	93.489	21.513	5.382	2.002
Palm Springs Arpt.	50	633.729	419.432	304.832	95.083	21.881	5.230	1.939
Palm Springs Arpt.	60	665.961	440.035	318.191	98.868	22.810	5.142	1.906
Palm Springs Arpt.	70	674.857	442.877	319.171	99.370	23.005	5.330	1.975
Palm Springs Arpt.	80	710.665	459.228	327.893	101.814	23.712	5.250	1.934
Palm Springs Arpt.	90	729.571	466.569	331.384	99.656	22.215	5.305	1.968
Palm Springs Arpt.	100	713.628	460.682	328.141	101.383	23.585	5.400	2.003
Palm Springs Arpt.	110	685.959	448.983	322.818	100.126	23.174	5.277	1.958
Palm Springs Arpt.	120	637.042	419.708	304.530	95.261	21.986	5.291	1.960
Palm Springs Arpt.	130	633.387	412.586	294.436	89.740	20.689	5.292	1.964
Palm Springs Arpt.	140	611.230	403.900	293.115	91.097	20.948	5.313	1.976
Palm Springs Arpt.	150	604.482	402.145	292.390	90.965	20.957	5.318	1.978
Palm Springs Arpt.	160	603.329	394.578	281.721	82.878	17.782	5.345	1.999
Palm Springs Arpt.	170	647.504	424.601	304.665	82.433	15.921	5.333	1.993
Palm Springs Arpt.	180	567.831	368.159	261.581	62.295	13.941	5.154	1.933
Palm Springs Arpt.	190	570.803	378.316	274.381	75.656	15.767	5.234	1.937

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Palm Springs Arpt.	200	611.611	405.976	294.359	86.890	18.513	5.213	1.939
Palm Springs Arpt.	210	642.190	421.056	303.056	92.911	21.506	5.209	1.931
Palm Springs Arpt.	220	584.013	390.074	285.912	90.492	20.868	5.348	1.987
Palm Springs Arpt.	230	596.520	398.383	290.921	91.596	21.108	5.216	1.926
Palm Springs Arpt.	240	641.947	421.237	303.571	94.529	21.830	5.283	1.959
Palm Springs Arpt.	250	661.955	429.377	307.321	95.653	22.173	5.381	1.995
Palm Springs Arpt.	260	703.428	453.903	323.370	100.375	23.354	5.343	1.973
Palm Springs Arpt.	270	718.818	460.958	326.387	97.893	21.889	5.460	2.025
Palm Springs Arpt.	280	706.459	455.590	324.948	100.325	23.346	5.469	2.016
Palm Springs Arpt.	290	659.585	427.504	307.548	96.412	22.371	5.384	1.995
Palm Springs Arpt.	300	660.549	429.858	306.655	95.344	22.013	5.401	1.999
Palm Springs Arpt.	310	620.197	406.640	293.391	92.190	21.251	5.332	1.981
Palm Springs Arpt.	320	626.626	414.324	299.554	91.823	21.126	5.296	1.965
Palm Springs Arpt.	330	607.725	402.861	292.147	91.442	21.090	5.343	1.979
Palm Springs Arpt.	340	641.907	424.620	306.766	89.993	19.199	5.765	1.908
Palm Springs Arpt.	350	618.954	405.994	291.561	78.756	15.779	5.152	1.929
Palm Springs Arpt.	360	640.610	408.409	286.509	67.215	13.757	5.059	1.892
Perris	10	640.494	404.997	283.474	74.662	14.536	4.847	1.415
Perris	20	658.164	423.836	301.012	86.640	18.781	3.544	1.298
Perris	30	618.951	396.124	284.519	89.012	20.507	3.640	1.324
Perris	40	679.281	440.055	313.958	95.317	22.184	3.870	1.349
Perris	50	701.790	453.640	323.219	98.243	22.886	4.469	1.362
Perris	60	682.369	418.501	298.768	92.706	21.378	3.620	1.315
Perris	70	721.544	454.685	318.378	94.960	22.140	3.596	1.311
Perris	80	759.480	477.468	334.486	101.568	24.022	3.615	1.309
Perris	90	704.472	451.438	319.530	95.777	21.388	3.529	1.287
Perris	100	691.910	446.228	317.995	98.176	22.857	3.536	1.280
Perris	110	659.349	429.782	308.531	95.611	22.145	3.648	1.322
Perris	120	646.275	415.642	300.330	93.424	21.565	3.712	1.359
Perris	130	679.540	436.767	309.420	92.487	21.435	4.651	1.403
Perris	140	664.688	429.729	306.145	92.647	21.553	4.428	1.413
Perris	150	665.679	424.130	297.794	89.395	20.589	3.834	1.405
Perris	160	665.679	424.130	297.794	86.347	18.755	3.803	1.397
Perris	170	646.917	411.257	289.547	76.659	14.900	3.704	1.372
Perris	180	615.476	381.420	262.171	64.202	10.967	3.844	1.429

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Perris	190	646.099	410.346	288.380	75.837	14.705	3.621	1.332
Perris	200	659.930	421.850	297.449	83.863	18.067	3.719	1.370
Perris	210	679.020	437.322	310.222	92.551	21.388	3.682	1.344
Perris	220	682.453	441.499	314.684	95.309	22.155	3.707	1.353
Perris	230	702.862	454.469	323.856	98.459	22.940	5.709	1.761
Perris	240	630.490	414.426	299.201	92.856	21.412	3.839	1.373
Perris	250	654.862	426.451	305.952	94.721	21.937	3.704	1.343
Perris	260	746.468	463.474	321.214	98.357	22.882	3.727	1.354
Perris	270	736.970	452.229	318.803	95.374	21.281	3.520	1.280
Perris	280	753.436	471.961	329.667	99.317	23.421	3.336	1.200
Perris	290	719.787	458.067	323.007	97.939	23.019	3.554	1.279
Perris	300	682.810	434.237	306.222	92.659	21.446	4.324	1.338
Perris	310	684.950	439.901	311.531	93.059	21.551	4.576	1.362
Perris	320	681.393	441.268	314.666	95.344	22.163	3.743	1.298
Perris	330	684.114	443.216	316.207	95.935	22.313	4.595	1.319
Perris	340	657.980	423.609	301.065	86.947	18.859	3.771	1.385
Perris	350	656.023	416.802	292.963	77.190	15.006	3.849	1.427
Perris	360	644.530	402.016	278.241	71.463	10.724	3.800	1.405
Pico Rivera	10	478.965	285.177	202.573	55.113	11.726	4.250	1.278
Pico Rivera	20	489.809	306.183	213.410	61.832	13.421	3.148	1.002
Pico Rivera	30	489.809	306.183	219.195	67.016	15.583	2.886	0.860
Pico Rivera	40	480.930	310.024	221.486	67.309	15.616	2.637	0.817
Pico Rivera	50	532.023	336.690	236.832	70.649	16.716	4.367	1.359
Pico Rivera	60	515.684	320.750	228.229	69.498	16.193	3.117	0.760
Pico Rivera	70	522.311	332.105	234.828	71.467	16.723	2.910	0.925
Pico Rivera	80	542.386	342.295	240.878	73.237	17.226	2.211	0.583
Pico Rivera	90	541.415	340.321	238.532	70.781	16.035	2.483	0.696
Pico Rivera	100	543.657	342.943	241.629	73.559	17.499	2.388	0.621
Pico Rivera	110	520.628	330.360	233.529	70.765	16.532	2.016	0.474
Pico Rivera	120	502.496	322.180	229.264	69.831	16.266	2.136	0.617
Pico Rivera	130	488.571	314.053	223.912	68.019	15.795	1.827	0.559
Pico Rivera	140	484.897	306.941	219.255	66.616	15.461	1.725	0.530
Pico Rivera	150	468.816	302.709	216.391	65.795	15.285	1.407	0.440
Pico Rivera	160	455.806	293.345	209.411	61.422	13.218	1.415	0.440
Pico Rivera	170	442.751	283.621	201.380	56.701	10.495	1.407	0.440

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Pico Rivera	180	430.585	272.862	191.811	50.224	7.400	1.407	0.440
Pico Rivera	190	440.846	282.554	200.591	53.961	10.454	1.407	0.440
Pico Rivera	200	493.785	309.461	215.641	62.621	13.391	1.428	0.440
Pico Rivera	210	500.888	316.369	222.075	67.168	15.620	1.935	0.570
Pico Rivera	220	484.562	310.330	221.787	67.481	15.736	1.935	0.570
Pico Rivera	230	511.640	315.104	224.894	68.470	15.912	2.477	0.653
Pico Rivera	240	546.345	344.976	242.625	73.068	17.374	3.016	0.959
Pico Rivera	250	532.478	331.912	234.613	71.361	16.691	2.279	0.601
Pico Rivera	260	541.603	342.571	241.354	73.471	17.294	1.562	0.440
Pico Rivera	270	544.924	342.563	240.265	71.395	16.178	2.403	0.536
Pico Rivera	280	540.087	340.599	239.893	73.070	17.202	3.523	0.983
Pico Rivera	290	565.215	354.720	248.514	75.010	17.918	3.378	0.919
Pico Rivera	300	518.053	322.316	228.630	69.630	16.334	3.506	0.951
Pico Rivera	310	534.590	338.445	238.109	71.042	16.808	4.152	1.266
Pico Rivera	320	499.869	317.300	223.765	68.093	15.925	2.255	0.653
Pico Rivera	330	469.382	304.451	218.364	66.734	15.514	2.873	0.860
Pico Rivera	340	458.852	296.889	212.411	61.910	13.431	3.231	0.908
Pico Rivera	350	450.806	286.528	203.539	56.900	12.334	4.201	1.325
Pico Rivera	360	571.323	332.609	213.343	50.236	15.621	5.850	1.813
Redlands	10	576.613	376.579	270.751	73.544	13.947	4.128	1.474
Redlands	20	588.707	389.680	282.468	83.745	17.924	3.823	1.329
Redlands	30	633.441	416.761	299.889	91.025	20.882	4.467	1.648
Redlands	40	627.425	402.005	290.147	89.277	20.554	5.255	1.646
Redlands	50	642.785	422.245	302.740	91.891	21.146	4.698	1.724
Redlands	60	702.885	456.924	325.898	98.220	22.459	4.316	1.572
Redlands	70	662.181	431.540	309.641	95.781	22.158	4.843	1.787
Redlands	80	709.941	457.530	325.181	99.551	23.099	4.806	1.768
Redlands	90	735.347	469.947	331.745	98.622	21.960	4.767	1.765
Redlands	100	736.785	471.812	333.569	101.480	23.621	4.673	1.717
Redlands	110	680.453	436.071	312.778	96.804	22.414	4.635	1.704
Redlands	120	636.207	416.048	298.928	92.310	21.315	4.632	1.709
Redlands	130	617.736	408.070	295.555	91.784	21.142	4.085	1.439
Redlands	140	615.451	401.661	289.373	88.503	20.355	4.622	1.702
Redlands	150	602.479	397.398	288.809	89.783	20.671	4.214	1.371
Redlands	160	611.678	403.666	291.523	85.771	18.353	3.954	1.232

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Redlands	170	579.258	377.362	270.291	73.093	13.907	4.482	1.670
Redlands	180	564.701	361.492	254.649	63.685	12.200	4.419	1.653
Redlands	190	568.385	373.163	268.840	73.247	14.183	5.149	1.698
Redlands	200	566.930	371.606	267.069	79.859	17.144	5.541	1.644
Redlands	210	606.104	404.772	294.310	91.452	21.119	4.867	1.746
Redlands	220	611.676	408.270	297.215	92.705	21.381	5.735	1.790
Redlands	230	621.010	409.257	295.831	91.478	21.052	4.624	1.710
Redlands	240	651.272	415.215	300.166	93.320	21.512	4.779	1.731
Redlands	250	652.837	417.081	299.160	93.337	21.641	5.190	1.713
Redlands	260	708.194	457.382	325.942	100.653	23.467	4.614	1.700
Redlands	270	716.497	457.051	324.107	97.390	21.744	5.477	1.673
Redlands	280	709.317	449.416	318.363	97.683	22.803	4.544	1.667
Redlands	290	678.989	433.692	311.235	96.565	22.351	4.447	1.629
Redlands	300	657.823	417.741	298.207	92.508	21.366	4.021	1.459
Redlands	310	632.875	416.380	299.982	92.691	21.323	3.052	1.048
Redlands	320	607.183	402.861	292.661	90.985	20.910	3.362	1.149
Redlands	330	596.310	395.093	286.617	89.245	20.546	4.200	1.541
Redlands	340	584.242	384.328	277.218	81.605	17.450	3.602	1.249
Redlands	350	614.221	383.305	269.975	73.641	14.090	3.996	1.483
Redlands	360	633.248	400.669	278.982	64.709	12.063	4.449	1.653
Riverside Arpt.	10	581.233	381.838	274.554	74.573	14.541	4.583	1.711
Riverside Arpt.	20	585.687	387.514	280.828	83.250	17.821	4.316	1.598
Riverside Arpt.	30	661.657	433.936	311.693	95.142	21.984	5.265	1.628
Riverside Arpt.	40	654.897	431.263	310.635	95.317	22.030	4.748	1.755
Riverside Arpt.	50	688.876	454.024	327.394	100.737	23.171	4.864	1.803
Riverside Arpt.	60	698.454	453.881	323.672	97.547	22.317	4.901	1.678
Riverside Arpt.	70	673.005	437.533	311.569	95.258	22.082	6.079	1.764
Riverside Arpt.	80	711.703	457.234	324.501	99.179	23.042	4.875	1.797
Riverside Arpt.	90	731.616	467.406	329.901	98.066	21.844	4.872	1.805
Riverside Arpt.	100	738.288	472.739	334.215	101.672	23.659	4.787	1.767
Riverside Arpt.	110	671.009	433.950	311.679	96.658	22.405	5.422	1.787
Riverside Arpt.	120	650.172	418.086	301.254	93.528	21.583	4.602	1.697
Riverside Arpt.	130	629.644	406.347	293.623	91.142	21.000	4.451	1.635
Riverside Arpt.	140	626.504	401.572	290.373	90.606	20.832	4.801	1.680
Riverside Arpt.	150	646.144	420.770	299.947	89.797	20.596	4.704	1.739

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Riverside Arpt.	160	605.754	399.189	288.063	84.672	18.134	4.629	1.721
Riverside Arpt.	170	577.305	376.045	269.477	73.305	13.914	4.446	1.653
Riverside Arpt.	180	561.432	359.273	253.038	63.325	12.355	4.547	1.689
Riverside Arpt.	190	575.815	375.347	268.922	72.883	14.292	4.686	1.740
Riverside Arpt.	200	614.044	404.482	291.184	85.340	18.383	4.848	1.776
Riverside Arpt.	210	602.938	402.443	292.525	90.860	20.988	4.722	1.746
Riverside Arpt.	220	609.336	406.498	295.835	92.234	21.275	4.724	1.746
Riverside Arpt.	230	629.513	416.009	300.642	92.552	21.251	4.722	1.746
Riverside Arpt.	240	632.878	415.288	299.832	93.037	21.470	4.767	1.762
Riverside Arpt.	250	674.205	440.760	316.849	98.398	22.801	4.724	1.744
Riverside Arpt.	260	754.931	481.116	338.511	101.773	23.588	4.711	1.727
Riverside Arpt.	270	730.748	466.353	327.994	98.285	22.074	4.802	1.780
Riverside Arpt.	280	734.225	473.488	336.095	103.101	24.066	4.612	1.694
Riverside Arpt.	290	692.212	448.422	318.948	96.482	22.229	4.723	1.739
Riverside Arpt.	300	734.082	474.512	337.028	101.127	23.204	4.722	1.745
Riverside Arpt.	310	686.085	450.346	325.216	100.316	23.142	4.703	1.738
Riverside Arpt.	320	608.193	401.391	290.779	90.358	20.771	4.753	1.759
Riverside Arpt.	330	656.550	434.385	314.721	97.188	22.321	4.517	1.667
Riverside Arpt.	340	615.341	391.241	280.852	83.465	17.853	4.433	1.641
Riverside Arpt.	350	576.745	376.403	269.922	73.043	14.358	4.938	1.846
Riverside Arpt.	360	584.631	366.613	256.632	64.432	12.127	4.467	1.660
Santa Monica Arpt.	10	513.453	321.659	229.388	61.802	11.916	3.066	1.128
Santa Monica Arpt.	20	515.244	335.646	240.491	69.811	15.085	3.669	1.138
Santa Monica Arpt.	30	515.292	336.137	241.940	74.927	17.372	3.235	1.181
Santa Monica Arpt.	40	528.389	345.063	248.325	76.272	17.667	3.943	1.180
Santa Monica Arpt.	50	539.651	351.089	251.917	77.178	17.889	3.545	1.181
Santa Monica Arpt.	60	555.259	359.488	257.125	78.790	18.300	4.377	1.310
Santa Monica Arpt.	70	577.798	370.847	264.510	81.248	18.942	3.412	1.164
Santa Monica Arpt.	80	639.846	408.589	288.547	88.304	20.869	3.180	1.150
Santa Monica Arpt.	90	632.742	396.929	277.366	81.623	18.411	3.944	1.115
Santa Monica Arpt.	100	614.499	391.470	276.603	84.249	19.719	3.039	1.105
Santa Monica Arpt.	110	585.384	377.222	268.815	82.478	19.227	3.078	1.115
Santa Monica Arpt.	120	588.200	381.315	272.587	83.442	19.405	2.935	1.060
Santa Monica Arpt.	130	540.228	353.099	253.351	77.427	18.012	3.113	1.132
Santa Monica Arpt.	140	558.320	364.914	261.977	80.061	18.615	2.923	1.056

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Santa Monica Arpt.	150	539.842	354.577	255.352	78.365	18.228	3.235	1.180
Santa Monica Arpt.	160	540.485	350.663	250.283	72.129	15.542	3.063	1.122
Santa Monica Arpt.	170	516.809	331.685	234.453	62.883	12.164	3.042	1.121
Santa Monica Arpt.	180	504.542	320.143	224.433	56.366	9.113	3.100	1.147
Santa Monica Arpt.	190	512.408	331.917	236.960	63.902	12.320	3.073	1.110
Santa Monica Arpt.	200	508.222	331.679	238.433	69.892	15.089	3.160	1.156
Santa Monica Arpt.	210	540.629	350.288	251.636	76.800	17.822	3.105	1.129
Santa Monica Arpt.	220	547.961	358.307	257.049	78.270	18.160	3.084	1.124
Santa Monica Arpt.	230	599.969	387.745	276.199	83.520	19.384	3.077	1.120
Santa Monica Arpt.	240	557.751	361.651	259.182	79.648	18.488	2.988	1.078
Santa Monica Arpt.	250	573.624	367.906	262.373	80.723	18.833	3.081	1.116
Santa Monica Arpt.	260	602.666	384.114	271.749	83.215	19.544	3.168	1.149
Santa Monica Arpt.	270	607.503	385.793	271.794	81.078	18.240	3.108	1.132
Santa Monica Arpt.	280	604.616	384.744	271.964	83.126	19.493	3.145	1.139
Santa Monica Arpt.	290	607.704	388.857	275.558	83.843	19.558	3.205	1.162
Santa Monica Arpt.	300	551.207	357.441	255.959	78.577	18.249	3.753	1.121
Santa Monica Arpt.	310	537.824	347.600	249.702	76.838	17.789	3.127	1.135
Santa Monica Arpt.	320	527.903	343.266	246.138	74.961	17.335	2.992	1.084
Santa Monica Arpt.	330	521.972	336.759	240.162	73.850	17.125	4.306	1.148
Santa Monica Arpt.	340	505.633	330.271	237.573	69.887	15.085	3.315	1.095
Santa Monica Arpt.	350	494.878	319.054	227.175	60.912	11.723	2.929	1.075
Santa Monica Arpt.	360	513.453	321.659	222.704	56.436	9.196	3.079	1.139
Upland	10	555.373	345.876	239.980	63.174	12.070	2.793	0.750
Upland	20	555.373	345.876	245.990	71.955	15.439	2.554	0.674
Upland	30	538.038	349.286	251.434	77.169	17.789	3.822	1.069
Upland	40	550.750	358.150	257.230	78.714	18.122	3.028	0.915
Upland	50	561.055	364.068	261.063	79.916	18.425	3.495	0.954
Upland	60	611.698	386.244	271.072	81.271	18.947	4.127	1.261
Upland	70	598.834	383.543	272.526	83.246	19.321	3.901	1.164
Upland	80	626.468	397.965	281.130	85.801	20.033	3.624	0.978
Upland	90	645.363	401.670	282.193	83.845	18.833	3.848	1.183
Upland	100	627.698	398.667	281.537	85.816	20.024	3.728	1.053
Upland	110	607.091	383.543	272.526	83.246	19.321	3.950	1.212
Upland	120	597.761	380.200	268.225	81.414	19.134	3.836	0.999
Upland	130	562.165	364.808	261.616	80.103	18.472	3.203	0.874

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Upland	140	553.217	357.852	257.001	78.637	18.104	2.558	0.714
Upland	150	574.559	364.124	256.266	78.343	18.070	2.394	0.714
Upland	160	552.555	355.209	252.039	72.840	16.058	3.199	0.684
Upland	170	532.439	337.016	237.260	64.983	14.553	5.052	1.475
Upland	180	554.323	341.406	234.907	58.933	10.880	4.156	1.063
Upland	190	546.571	342.042	238.299	63.932	12.307	2.771	0.812
Upland	200	572.130	353.008	247.315	72.389	15.533	4.951	1.463
Upland	210	608.407	387.571	273.800	81.780	19.093	4.951	1.463
Upland	220	552.614	357.603	256.809	78.572	18.090	2.576	0.770
Upland	230	561.542	364.421	261.334	80.007	18.446	2.120	0.596
Upland	240	576.691	372.635	266.372	81.561	18.857	3.009	0.817
Upland	250	622.700	390.231	272.968	82.243	19.365	3.009	0.817
Upland	260	622.159	394.920	278.858	85.058	19.862	2.872	0.832
Upland	270	652.561	402.430	280.564	83.325	18.739	2.608	0.719
Upland	280	622.953	394.720	278.198	84.657	19.756	1.892	0.484
Upland	290	587.508	373.630	265.074	80.913	18.804	1.942	0.560
Upland	300	570.809	368.203	262.872	80.275	18.549	1.680	0.462
Upland	310	589.492	374.574	263.399	77.861	18.191	2.048	0.635
Upland	320	614.264	391.550	276.708	82.720	19.302	3.078	0.978
Upland	330	577.430	356.281	250.972	76.828	17.700	2.876	0.810
Upland	340	512.649	333.122	238.925	69.750	14.983	1.701	0.462
Upland	350	516.291	331.570	235.612	63.320	12.060	1.476	0.462
Upland	360	492.585	311.580	218.245	56.352	8.367	2.268	0.595
USC/Downtown L.A.	10	555.030	358.365	254.880	68.522	13.060	3.593	0.938
USC/Downtown L.A.	20	562.801	368.086	264.743	77.494	16.603	2.991	0.700
USC/Downtown L.A.	30	592.076	387.124	278.295	85.022	19.559	2.440	0.656
USC/Downtown L.A.	40	602.648	393.365	282.960	86.681	19.938	2.976	0.746
USC/Downtown L.A.	50	614.124	399.781	286.461	87.395	20.132	4.794	1.304
USC/Downtown L.A.	60	631.676	408.685	292.512	89.748	20.723	3.708	1.082
USC/Downtown L.A.	70	657.404	421.964	299.537	91.465	21.217	3.962	1.230
USC/Downtown L.A.	80	675.915	429.241	303.600	92.951	21.713	3.721	1.090
USC/Downtown L.A.	90	687.531	435.333	306.198	91.214	20.482	3.345	0.937
USC/Downtown L.A.	100	683.125	434.911	306.890	93.513	21.845	2.690	0.798
USC/Downtown L.A.	110	653.006	417.949	297.275	90.856	21.058	2.766	0.833
USC/Downtown L.A.	120	632.879	408.930	291.561	88.740	20.492	2.924	0.803

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
USC/Downtown L.A.	130	606.811	395.355	283.751	86.863	20.006	3.122	0.892
USC/Downtown L.A.	140	602.738	393.235	282.629	86.448	19.873	1.721	0.475
USC/Downtown L.A.	150	589.748	385.841	277.525	84.919	19.547	1.464	0.473
USC/Downtown L.A.	160	575.464	374.176	267.923	77.890	16.698	1.821	0.555
USC/Downtown L.A.	170	558.237	359.730	255.783	68.331	13.047	2.013	0.531
USC/Downtown L.A.	180	542.473	343.367	240.155	62.497	9.174	1.732	0.453
USC/Downtown L.A.	190	557.701	360.758	257.299	69.138	13.182	1.481	0.449
USC/Downtown L.A.	200	574.258	373.296	267.214	77.711	16.661	1.374	0.451
USC/Downtown L.A.	210	585.007	383.088	275.740	84.405	19.407	1.665	0.465
USC/Downtown L.A.	220	587.948	384.194	276.152	84.437	19.437	2.723	0.784
USC/Downtown L.A.	230	591.821	385.746	276.694	84.365	19.385	2.723	0.784
USC/Downtown L.A.	240	618.542	400.640	286.224	87.507	20.188	2.498	0.752
USC/Downtown L.A.	250	652.415	418.877	297.483	90.746	21.048	2.301	0.655
USC/Downtown L.A.	260	652.146	418.631	296.528	90.887	21.310	2.084	0.596
USC/Downtown L.A.	270	678.838	427.251	299.018	88.006	19.699	1.586	0.464
USC/Downtown L.A.	280	667.871	425.785	300.762	91.753	21.420	1.885	0.558
USC/Downtown L.A.	290	656.229	420.935	298.632	90.895	21.080	1.879	0.472
USC/Downtown L.A.	300	633.849	409.623	292.127	89.482	20.648	2.010	0.528
USC/Downtown L.A.	310	612.292	399.690	287.244	88.112	20.285	4.585	1.199
USC/Downtown L.A.	320	575.652	376.567	271.420	83.393	19.225	5.297	1.506
USC/Downtown L.A.	330	590.769	385.805	277.025	84.493	19.458	3.155	0.856
USC/Downtown L.A.	340	573.616	373.199	267.953	78.074	16.692	3.016	0.798
USC/Downtown L.A.	350	560.344	359.733	254.478	71.575	13.003	2.831	0.804
USC/Downtown L.A.	360	532.392	340.413	239.858	62.506	9.002	2.728	0.604
Van Nuys Arpt.	10	558.302	365.479	264.072	72.342	13.756	4.517	1.685
Van Nuys Arpt.	20	592.389	392.286	283.480	83.593	18.035	4.551	1.697
Van Nuys Arpt.	30	597.720	384.318	280.689	88.215	20.383	4.461	1.652
Van Nuys Arpt.	40	658.752	436.741	315.843	97.024	22.288	4.485	1.663
Van Nuys Arpt.	50	614.608	399.740	288.973	90.061	20.797	4.464	1.652
Van Nuys Arpt.	60	626.171	411.689	297.042	92.188	21.349	4.629	1.676
Van Nuys Arpt.	70	725.166	472.205	337.669	104.025	24.173	4.582	1.692
Van Nuys Arpt.	80	731.068	463.729	325.032	100.088	23.486	4.589	1.687
Van Nuys Arpt.	90	706.819	455.542	323.352	97.210	21.747	4.597	1.706
Van Nuys Arpt.	100	683.826	442.860	316.402	98.507	23.039	4.662	1.726
Van Nuys Arpt.	110	652.865	429.447	308.992	96.072	22.419	4.650	1.720

Table 3: Hourly Receptor Proximity Adjustment Factors $\left(\frac{\mu g/m^3}{lb/hr}\right)$ cont'd

Met Station	Angle	50 M	75 M	100 M	200 M	300 M	500 M	1,000 M
Van Nuys Arpt.	120	622.516	412.135	297.765	92.985	21.521	4.659	1.724
Van Nuys Arpt.	130	616.357	406.555	292.462	90.401	20.877	4.583	1.699
Van Nuys Arpt.	140	632.597	415.919	299.022	92.257	21.280	4.514	1.669
Van Nuys Arpt.	150	637.603	420.278	302.227	91.647	21.047	4.516	1.664
Van Nuys Arpt.	160	605.417	403.244	292.414	86.598	18.637	4.569	1.702
Van Nuys Arpt.	170	564.595	371.010	267.227	72.893	13.888	4.488	1.672
Van Nuys Arpt.	180	601.593	378.819	262.689	61.024	11.975	4.535	1.701
Van Nuys Arpt.	190	601.593	378.819	262.689	71.059	13.643	4.482	1.668
Van Nuys Arpt.	200	552.865	362.991	263.745	78.847	16.950	4.433	1.650
Van Nuys Arpt.	210	567.556	376.987	274.109	85.194	19.692	4.482	1.662
Van Nuys Arpt.	220	595.902	395.564	287.344	89.335	20.581	4.467	1.645
Van Nuys Arpt.	230	592.632	390.765	283.514	88.957	20.534	4.610	1.711
Van Nuys Arpt.	240	633.214	414.703	299.160	93.212	21.555	4.626	1.709
Van Nuys Arpt.	250	639.235	415.988	297.654	93.230	21.646	4.434	1.638
Van Nuys Arpt.	260	680.823	441.840	315.877	97.901	22.829	4.589	1.689
Van Nuys Arpt.	270	684.276	442.358	314.657	94.888	21.199	4.567	1.693
Van Nuys Arpt.	280	671.009	435.283	311.742	96.907	22.588	4.645	1.720
Van Nuys Arpt.	290	650.303	424.821	305.275	94.676	21.944	4.642	1.720
Van Nuys Arpt.	300	619.218	409.041	296.153	92.337	21.351	4.641	1.722
Van Nuys Arpt.	310	607.361	400.941	290.100	89.883	20.742	4.644	1.724
Van Nuys Arpt.	320	613.330	409.890	298.947	93.583	21.574	4.589	1.702
Van Nuys Arpt.	330	581.125	388.721	283.205	88.614	20.500	4.609	1.712
Van Nuys Arpt.	340	572.079	374.397	271.579	81.056	17.381	5.158	1.678
Van Nuys Arpt.	350	558.115	364.863	262.802	72.374	13.764	4.664	1.741
Van Nuys Arpt.	360	546.746	353.689	249.904	60.581	11.944	4.526	1.692

ATTACHMENT 3

South Coast Air Quality Management District

AB 2588 and Rule 1402 Supplemental Guidelines

(Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act)

September 2018

Preface

This document (Supplemental Guidelines) is a supplementary guide to the State of California Office of Environmental Health Hazard Assessment (OEHHA) document entitled *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. The OEHHA guidance document contains several sections that refer users to their local air district for specific or additional requirements and this document describes and clarifies the requirements for the South Coast Air Quality Management District (SCAQMD). This version of the Supplemental Guidelines updates the previous November 2016 version.

The Supplemental Guidelines are intended to be a "living" document, which staff will update periodically as needed. The major revisions to this document from the previous November 2016 version include:

- Adding a description for the Voluntary Risk Reduction Program (refer to Section 3.6 and Table 3);
- Adding an HRA Summary Form (refer to Attachment A to Appendix B);
- Removing tables that are updated frequently and are listed in other SCAQMD rules or guidelines and including a reference to the applicable table(s) in the existing SCAQMD rule or guidelines instead; and
- Updating terms and acronyms (refer to Appendix G).

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LIST OF FIGURES

1. INTRODUCTION

These Supplemental Guidelines are to be used in conjunction with the document prepared by the State of California Office of Environmental Health Hazard Assessment (OEHHA) entitled "Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments" (referred to hereafter as the 2015 OEHHA HRA Guidelines).[1] Facilities required to submit health risk assessments to the South Coast Air Quality Management District (SCAQMD) must follow the 2015 OEHHA HRA Guidelines pursuant to Health and Safety Code 44360(b)(2). Since the 2015 OEHHA HRA Guidelines defer to the local air district for specific, localized, or additional requirements, these Supplemental Guidelines address those areas and other issues that have arisen during the implementation of the AB 2588 Program at SCAQMD.

A certification form must be submitted to SCAQMD with all documents and correspondence relating to health risk assessments.[2]

Please visit SCAQMD's AB 2588 Program webpage provided below for additional information, documents, and any questions regarding this document, health risk assessment methodology, and other AB 2588 Program issues.[3] Questions may be emailed to AB2588@aqmd.gov or asked via phone at (909) 396-3610.

[1] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

[2] http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588/forms

[3] http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588

2. OVERVIEW OF THE AB 2588 PROGRAM

In 1987, the California legislature adopted the Air Toxics "Hot Spots" Information and Assessment Act; also known as Assembly Bill 2588 (AB 2588). The goals of the AB 2588 Program are to collect toxic air contaminant emissions data, identify facilities having localized impacts, determine health risks, and notify affected individuals. In 1992, the California legislature added a risk reduction component, the Facility Air Toxic Contaminant Risk Audit and Reduction Plan, or Senate Bill 1731 (SB 1731), which requires facilities to develop and implement measures to reduce impacts if risks are found above thresholds specified by air districts. SCAQMD *Rule 1402 - Control of Toxic Air Contaminants from Existing Sources* implements various aspects of AB 2588 and SB 1731 including public notification and risk reduction requirements for facilities with health risks that are above specified thresholds.

Rule 1402 was amended in October 7, 2016 to include a provision to allow facilities to participate in a Voluntary Risk Reduction Program. This program is an alternative to complying with the traditional AB 2588 Program and Rule 1402 approach that provides qualifying facilities an opportunity to reduce health risks below the Notification Risk Level through a Voluntary Risk Reduction Plan (VRRP) and employ a Modified Public Notification approach as specified in Rule 1402. The Voluntary Risk Reduction Program will achieve risk reductions both sooner and beyond what is required in the traditional AB 2588, SB 1731, and Rule 1402 process.

There are five important components to the AB 2588 program as follows:

- *Emissions Reporting* - Facilities subject to the AB 2588 Program submit an air toxics inventory every four years through SCAQMD's Annual Emissions Reporting (AER) Program. Facilities are allowed to simplify AER reporting by aggregating common sources.
- *Prioritization* - From the simplified reported toxic emissions submitted through AER, SCAQMD staff prioritizes facilities, using a procedure approved by the Governing Board, into three categories: high, intermediate, and low priority. High priority facilities are then asked to prepare an Air Toxics Inventory Report (ATIR). In contrast to the simplified reporting allowed under AER, the ATIR requires greater detail which includes process, device, and stack information for each piece of equipment.
- *Health Risk Assessment* - From the detailed reported toxic emissions submitted through the ATIR, high priority facilities must prepare a Health Risk Assessment (HRA).
- *Public Notice* - If the health risks reported in the HRA exceed specified public notification thresholds, then the facility is required to provide public notice to the affected community.
- *Risk Reduction* - If the health risks reported in the HRA exceed specified action risk levels in Rule 1402, then the facility is required to reduce their health risks below the action risk levels.

Figure 1 below provides an overview of the AB 2588 Program and the different paths a facility may follow under Rule 1402.

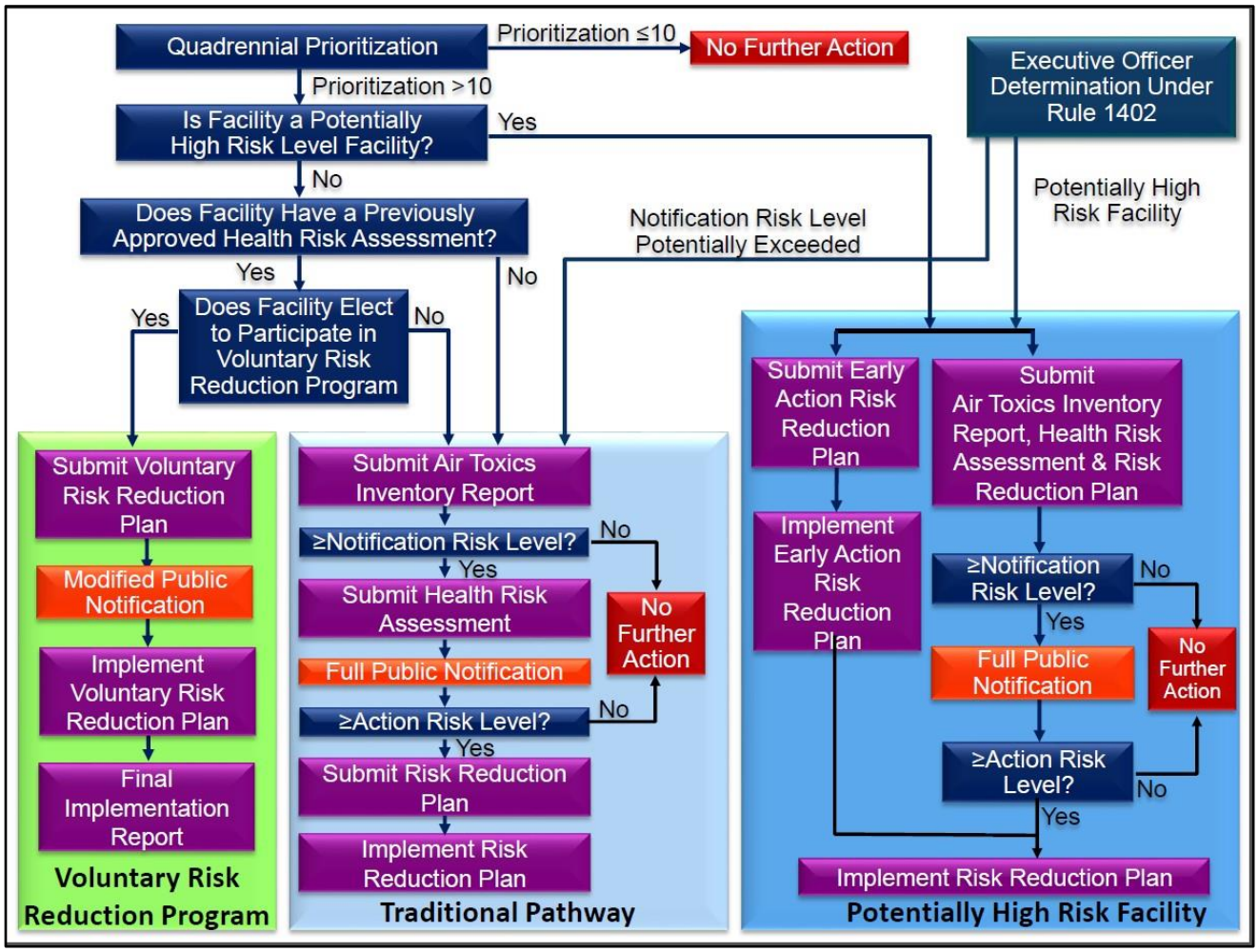


Figure 1. Overview of the AB 2588 Program and illustration of the paths by which a facility may follow

3. SUPPLEMENTAL GUIDELINES

3.1 Air Toxics Emissions Reporting

SCAQMD's AER Program is used for:

- All facilities subject to AER, including AB 2588 facilities who report their annual emissions of criteria pollutants and any one of 24 toxic air contaminants and ozone depleting compounds (ODC) (shown in Table 1 below). The report comprises the annual emissions report for toxic air contaminants.
- AB 2588 facilities which are subject to quadrennial (once in four years) reporting requirements. These facilities report any one of approximately 177 toxic air contaminants and ODCs from a detailed list of substances in Table A-1 of *Reporting Procedures for AB 2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory*.[4] This report comprises the quadrennial emissions report for toxic air contaminants.

Facilities subject to the AER Program calculate and report their emissions based on their throughput data (e.g., fuel usage, material usage, etc.), appropriate emission factors, and control efficiency, if applicable. The method for reporting emissions is described on SCAQMD's website.[5]

Table 1. Annually Reported Toxic Air Contaminants and ODCs under the AER Program

Ammonia	Chlorinated dioxins and dibenzofurans	Lead
Asbestos	Chlorofluorocarbons	Methylene chloride
Arsenic (inorganic)	1,4-Dioxane	Nickel
Benzene	Ethylene dibromide	Perchloroethylene
Beryllium	Ethylene dichloride	Polynuclear aromatic hydrocarbons (PAH)
1,3-Butadiene	Ethylene oxide	1,1,1-Trichloroethane
Cadmium	Formaldehyde	Trichloroethylene
Carbon tetrachloride	Hexavalent chromium	Vinyl chloride

The data collected in the AER Program in addition to information from other sources (i.e. monitoring data, source specific information, etc...) are used to determine potential candidates for the AB 2588 Program. Facilities that meet one of the following AB 2588 Program qualification conditions are required to prepare and submit a quadrennial air toxics inventory if:

- They emit 10 tons per year or more of VOC, NOx, SOx, or PM;
- They emit 25 tons per year or more of a combination of VOC, NOx, SOx, and PM;
- They emit less than 10 tons per year of VOC, NOx, SOx, or PM, but the facility activity is listed in California Air Resources Board's (CARB) Emission Inventory Criteria and Guidelines for the Air Toxics "Hot Spots" Program[6];
- Their emissions exceed one or more of the reporting thresholds in Table I or II in *Rule*

[4] http://www.aqmd.gov/docs/default-source/planning/risk-assessment/quadrennial_atir_procedure.pdf

[5] http://www.aqmd.gov/home/rules-compliance/compliance/annual-emission-reporting

[6] http://www.arb.ca.gov/ab2588/2588guid.htm

1402 – Control of Toxic Air Contaminants From Existing Sources;[7] or

- The Executive Officer of SCAQMD determines that emissions levels from the facility have the potential to cause an exceedance of risk reduction thresholds.

Facilities subject to the AB 2588 Program must provide a quadrennial report for toxic air contaminants. These substances are listed in Table A-1 of *Reporting Procedures for AB 2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory*, which provides the substance names and associated Chemical Abstracts Service (CAS) numbers. The degree of accuracy is also provided for each substance. The degree of accuracy is a de minimis emission level for reporting. As a result, facility-wide emissions of the substance which are greater than one-half of their corresponding degree of accuracy must be inventoried and reported.

As part of the quadrennial report for toxic air contaminants, facilities must also provide the distances to the nearest residential and commercial receptors, and the facility operating schedule (e.g., operating hours per day, operating days per week, and operating weeks per year). It is critical that facilities estimate their toxic emissions as precisely and accurately as possible. These reported emissions are used to prioritize the facility as discussed in the next section, 3.2. Prioritization Procedure. A facility's prioritization score determines its fees and if it is necessary to prepare an ATIR or VRRP (if eligible).

An ATIR should be prepared by using the latest approved version of CARB's Hotspots Analysis and Reporting Program (HARP).[8] In contrast to the simplified reporting allowed under AER, an ATIR requires a larger list of compounds (approximately 450 toxic air contaminants) and greater detail including process, device, and stack information for each piece of equipment.

When a facility is notified to prepare an ATIR or VRRP, the quadrennial toxic air contaminants emissions report is used as the 'base year emissions inventory.' This same base year emissions inventory is also used to prepare an HRA, Public Notice, and Risk Reduction Plan (RRP).

3.2. Prioritization Procedure

The AB 2588 Program requires SCAQMD staff to designate each facility as either high, intermediate, or low priority based on its individual priority score.

Per the requirements of the AB 2588 Program, SCAQMD's Prioritization Procedure considers the potency, toxicity, and quantity of hazardous materials released from the facility; the proximity of the facility to potential receptors, including, but not limited to, hospitals, schools, daycare centers, worksites, and residences; and any other factors that SCAQMD uses to determine that the facility may pose a significant risk to receptors. SCAQMD's Prioritization Procedure also includes adjustment factors for exposure period, averaging times, and the treatment of multipathway pollutants. The Prioritization Procedure is available at SCAQMD's website.[9]

A facility receives two scores: one for carcinogenic effects and the other for non-carcinogenic effects. The facility is then ranked using the higher of the two scores. Three categories are used in

[7] http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1402.pdf
[8] http://www.arb.ca.gov/toxics/harp/harp.htm
[9] http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588/prioritization

the ranking: high priority, intermediate priority, and low priority. Facilities designated as high priority are notified by SCAQMD staff of their priority score, required to submit a comprehensive inventory of their air toxic emissions via an ATIR, and required to submit a quadrennial emissions report using the AER software. Facilities ranked as intermediate priority are considered to be "District Tracking" facilities, which are required to submit an air toxics inventory once every four years, using the AER software. Facilities ranked as low priority are exempt from quadrennial emissions reporting. Priority scores are re-calculated each time a facility updates its quadrennial air toxic emission inventory. Table 2 summarizes the priority score categories and the actions required by each category.

Table 2. Priority Score Categories

Category	Facility Priority Score (PS)	Actions
High Priority	PS > 10	Prepare ATIR; update emissions quadrennially through AER
Intermediate Priority	1 < PS ≤ 10	Update emissions quadrennially through AER
Low Priority	PS ≤ 1	Exempt from quadrennial emissions reporting

SCAQMD staff considers requests from High Priority facilities to be re-prioritized after errors or other problems with their quadrennial emissions inventory report. Once the corrections are verified by SCAQMD staff, the facility will be informed, in writing. The following sections discuss the criteria used for evaluating requests to reprioritize a facility.

3.2.1. Receptor Distance

One of the factors considered when prioritizing facilities is the receptor distance. All facilities must report the distances to the nearest residential and commercial receptors as part of their AER submittal. If receptor distances are not provided, then default values (conservative receptor distances) are used by SCAQMD staff to prioritize that facility. If a facility operator believes that their facility was incorrectly categorized due to an incorrect or default receptor distance, then the facility must prepare and submit a signed copy of the Receptor Proximity Form which can be downloaded from the SCAQMD's website.[10]

3.2.2. Computational Errors

If computational errors or conservative assumptions were made in the quadrennial emissions report for toxic air contaminants inventory that overestimated emissions and resulted in a High Priority classification, the facility may correct the errors and submit the corrected estimates and supporting documentation to AB 2588 Program staff. The facility must include in their submission the nature of the error and calculations showing how the original emission estimate was determined and how the correction changes this value.

Please note that SCAQMD staff must use process rates and emissions from the quadrennial emissions reporting year to prioritize a facility. Changes in emissions estimates due to changes in

[10] http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588/forms

process rates in years other than the quadrennial emissions reporting year cannot be used to re-categorize a facility. See section 3.3.2 for further details.

3.2.3 ~~New~~ Source Test Results

Source test results may be used only if they have been previously approved by SCAQMD. The source test must be representative of the current operating conditions of the equipment. Additional documentation may be required to demonstrate that the equipment or process has not changed since the time of the source test.

If new source test results are available and have been previously submitted to and approved by SCAQMD, then the approved source test results may be used with the process rates in the quadrennial emissions inventory report to recalculate emissions and the priority score of a facility.

3.2.4. Equipment/Process Shutdowns or Process Modifications

If equipment or processes with air toxic emissions have been shut down prior to High Priority classification and the permits have been surrendered, then these emission reductions may be used to recalculate the priority score of High Priority facilities. Evidence for these emission reductions must include copies of letters sent to SCAQMD requesting emission reduction credits and/or the surrender of SCAQMD permits.

If a process has been modified since the quadrennial emissions report and the equipment or process emits a different quantity of a toxic substance, and the facility has applied for and received a permit modification reflecting this change, then the emission reduction for that substance may be used to recalculate the priority score.

All supporting documentation regarding equipment shutdowns and process modifications must be received by AB 2588 Program staff in order to recalculate the priority score.

3.2.5. Facility Closures

If the entire facility is closed prior to High Priority classification or if a facility is scheduled for complete closure, this information must be reported to AB 2588 Program staff. Upon review, staff will make a decision whether the facility should submit an ATIR. Factors that must be considered include the status of permits granted to the facility by SCAQMD and the nature of any ongoing activities at the facility. Unless a facility is informed by staff in writing that an ATIR is no longer required, the facility operator must submit an ATIR by the date required.

3.2.6. Change of Ownership/Operator

If there has been a change in ownership or operator, the new owner/operator must submit the requested reports unless the facility no longer emits any substances required to be reported under AB 2588. In such case, the new facility owner/operator must provide SCAQMD staff the necessary documentation to be exempt from reporting requirements of the AB 2588 Program.

3.3. Emission Estimates Approved for Use in HRAs

Facilities subject to the submittal of HRAs under the AB 2588 Program must estimate and submit their ATIR using the latest approved version of HARP.[11] This ATIR should include, at a minimum, the elements outlined in Appendix A of these Supplemental Guidelines. OEHHA has grouped the substances to be reported into three groups as shown in Appendix A of the 2015 OEHHA HRA Guidelines.[12] There are distinct reporting requirements for the three groups as follows:

Appendix A-I Substances – All emissions of these substances must be quantified in the ATIR and HRA including those calculated in the ATIR as below the degree of accuracy or below detection limits.

Appendix A-II Substances – Emissions of these substances do not need to be quantified in the ATIR and HRA; however, facilities must report whether the substances are used, produced, or otherwise present on-site. These substances can be simply listed in a table in the HRA.

Appendix A-III Substances – These substances only need to be reported in a table in the ATIR and HRA if they are manufactured by the facility.

The intent of the AB 2588 Program is that facilities performing HRAs use the process rates and emissions data submitted in their quadrennial emissions inventory report (see Section 3.1). SCAQMD receives requests from facilities to use process rates and emissions data other than those reported in their quadrennial emissions inventory report. As a general policy, SCAQMD will allow emission changes only if (1) the changes conform to one of the situations discussed in the following sections and (2) any emission increases are also included.

3.3.1. Computational Errors

Computational errors in the quadrennial emissions inventory report must be reported to SCAQMD staff as soon as detected. Written requests to correct errors for inclusion in the risk assessment must include documentation of the nature of the error and calculations to show how the original emission value was determined and how correcting the computational error changes this value.

3.3.2. Emission Reductions from a Facility's Base Year Emissions Inventory

HRAs in the AB 2588 Program take a 'snapshot' of a base year emissions inventory (or quadrennial emissions inventory report) which is determined by the HRA request letter or notification by the Executive Officer to prepare an ATIR, HRA, or VRRP. This base year is commonly the most recent quadrennial emissions reporting year. Emissions reductions must be verified to be considered as an allowable change. The allowable changes in this section can only be considered as a revision to the quadrennial emissions inventory report that has already been submitted. Modifications after the base year are discussed in Section 3.3.3. Verified emission reductions are those which are permanent and can be substantiated as occurring during the base

[11] http://www.arb.ca.gov/toxics/harp/harp.htm

[12] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

year. Verification requirements include specifications in SCAQMD's permit issued to the facility, a surrender of the existing SCAQMD permit, or reductions as required by SCAQMD rule(s). Letters of intent or internal memos mandating new company policy are not considered verifiable emission reductions.

Examples of verifiable emission reductions include:

- Misreporting of throughput information, inaccurate emission factors, and incorrect emission calculation methodology.
- A previously operating permitted source has been shut down and therefore has no emissions. In order for this to be considered as a verified emissions reduction, the facility must have surrendered the permit to SCAQMD. If a facility chooses to retain the permit for possible use of the equipment in the future, that source cannot be considered a permanent verified emissions reduction. Please send a copy of the letter requesting inactivation of the permit and any other supporting documentation to AB 2588 Program staff.
- A listed substance was no longer used and therefore not emitted in a process at the facility. The permit conditions have previously been modified to reflect this change. A copy of the modified permit or, if not yet available, a copy of the 400A application form requesting a change of permit conditions and a copy of the check for filing fee submitted to SCAQMD must be sent to AB 2588 Program staff.
- Pollution control equipment which has been issued a permit-to-construct, has been installed, and was in operation. Provide a copy of the permit-to-construct (and permit-to-operate, if issued), and show calculations for emission reductions. Provide the references for any emission factors used in the calculations. If source testing data was used to calculate the emissions, provide a copy of the source test protocol and all documentation relating to the results.
- Requirements of new SCAQMD rules that have resulted in permanent and enforceable reductions. Provide documentation on how and when reductions were achieved.

If the facility wishes to use verified emission reductions in their HRA, documentation of these verified changes must be provided.

3.3.3. Modifications in Risk after the Base Year

HRAs in the AB 2588 Program take a 'snapshot' of a base year emissions inventory which is determined by the HRA request letter. This base year is commonly the most recent quadrennial emissions reporting year. In some cases, more recent emissions are substantially different than the base year emissions of a facility due to modifications. Facilities can include information about the more recent emission changes and how those affect health risks in a supplemental appendix to their HRA. If a facility includes supplemental information showing that emissions and health risks have been reduced since the base year, then this more recent emissions scenario can be used when comparing residual health risks against Rule 1402(c)(2) Risk Reduction thresholds as long as the new emissions scenario is based on emission reductions that are permanent, enforceable, and verifiable. The health risks from the base year will still be used when comparing against Rule 1402(c)(12) Public Notification Thresholds. If public notification is required, then the supplemental information about reductions in health risk since the base year can be included in the notification materials.

The facility should contact AB 2588 Program staff to obtain approval and determine if the changes occurring after the base year can be considered as verifiable, enforceable, and permanent emission reductions. Upon approval, the facility must estimate cancer risk, cancer burden, and hazard indices for both the base year and the estimated emissions after the proposed future reductions are complete. The two risk estimates must be presented separately in the HRA submitted to SCAQMD. The dual estimate provides a backup in case reductions proposed by the facility are not implemented as planned. Note that new emissions or emission increases, due to process changes or new equipment, must also be quantified and included in any HRA which incorporates emission reductions since the quadrennial emissions inventory was prepared.

3.3.4. ~~New~~ Source Testing Data

Data from new or yet to be completed source tests will not be approved for use in the preparation of the required HRA if an ATIR has already been approved without the use of those source tests. However, if a facility has already conducted and completed the source test with an SCAQMD-approved source test protocol, and all supporting documentation is provided to AB 2588 Program staff, it may be considered for approval. SCAQMD staff will notify the facility in writing if new source test results are approved for use in the HRA. Please call AB 2588 Program staff if you submit a request and have not been notified regarding approval before submitting the HRA.

If a facility wishes to provide unapproved source test data for informational purposes only, it must be presented in an alternate HRA (i.e., as an appendix to the HRA). The alternate HRA must be presented with separate findings and discussion of cancer risk and hazard indices. Failure to completely separate the alternate HRA from the required analysis is grounds for rejection of the HRA.

3.3.5. Diesel Particulate Matter Emissions

Diesel particulate matter emissions were identified as a toxic air contaminant by CARB in 1998, and were added to the list of compounds in SCAQMD *Rule 1401 – New Source Review* on March 7, 2008. Under the current AB 2588 Air Toxics "Hot Spots" Emission Inventory Criteria and Guidelines Regulation, amended on August 27, 2007, facility operators are required to include health risks of any diesel exhaust particulate emissions from stationary emergency and prime compression ignition internal combustion engines, as well as portable diesel engines. Please clearly identify emergency diesel internal combustion engines (DICEs) and their corresponding emissions. This is essential because, on January 5, 2007, the SCAQMD Governing Board adopted separate public notification procedures for emergency DICEs.[13]

3.4. Uncertainty Analyses and Alternat~~ive~~ HRAs

The 2015 OEHHA HRA Guidelines describe uncertainty analyses (or HRAs with alternate assumptions) that may be provided at the discretion of SCAQMD. SCAQMD staff will allow such analyses to be included as one of the appendices to the facility's HRA. This analysis would be a supplement to the primary HRA that is carried out using the assumptions presented in the 2015

[13] http://www3.aqmd.gov/hb/2007/January/070128a.html

OEHHA HRA Guidelines and the guidelines included. Deviations from the OEHHA Tier-1 point estimate methodology must be described in detail at the beginning of the appendix and the reasons for the alternative assumptions must also be described in detail with supporting documentation.

All analyses ~~and~~, discussion, and information relating to an alternat~~ive~~e analysis (including unapproved source test data) must appear under a separate title such as "Alternat~~ive~~e Analysis" in an appendix to the HRA. If an alternat~~ive~~e HRA is mixed together with the Tier-1 analysis and not presented in a separate appendix of the document as required by OEHHA and SCAQMD guidelines, the HRA will be considered unacceptable and returned to the facility owner/operator for revision. Failure to comply with these guidelines are ~~. An alternative HRA is also held to the same~~ grounds for rejection of~~as~~ the primary HRA in accordance with Rule 1402(e).[14] The Alternate HRA it is for informational purposes only and is not reviewed or approved by SCAQMD, neither will it be used for comparison to Rule 1402 risk levels.

3.5. HRA Format

The format for the HRA must follow the detailed outline presented in Appendix B of these Supplemental Guidelines. A completed HRA Summary must be included in the Executive Summary of all HRAs submitted to SCAQMD; a sample of the form can be downloaded from SCAQMD's AB 2588 Program website.[15] The detailed HRA outline provided in Appendix B lists the HARP computer files to be included electronically with the HRA. All copies of electronic file(s) should be sent to AB 2588 Program staff. The HRA should also be submitted electronically (i.e., PDF format).

Cancer risk values should be reported to the nearest tenth and should be rounded up from 5 (e.g., 5.05 in a million is rounded up to 5.1 in a million). Non-cancer risk values should be reported to the nearest hundredth and should be rounded up from 5 (e.g., a hazard index (HI) of 0.105 is rounded to 0.11).

3.6. Public Notification, Risk Reduction, and Voluntary Risk Reduction Levels

The SCAQMD Governing Board has adopted risk levels for purposes of public notification pursuant to the AB 2588 Program. In addition, SCAQMD Rule 1402 establishes action risk levels that require risk reduction; the levels are summarized in Table 3 below and the elements to include in a RRP are included in Appendix D of these Supplemental Guidelines. Additional information regarding SCAQMD's public notification procedures are available on the website.[16]

Rule 1402 includes a provision to allow facilities to participate in the Voluntary Risk Reduction Program. If facilities choose to participate, they voluntarily reduce their health risk beyond the Action Risk Level to below the Notification Risk Level in lieu of the traditional AB 2588 Program process. Facilities also perform a modified public notification that does not require distribution of individual letters and public meetings as in the traditional AB 2588 Program approach. Additional information regarding qualifications and procedures for SCAQMD's Voluntary Risk Reduction Program are available on SCAQMD's website.[17]

[14] http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1402.pdf?sfvrsn=4
[15] http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588/forms
[16] http://www.aqmd.gov/nav/about/public-notices/ab-2588-notices
[17] http://www.aqmd.gov/docs/default-source/planning/risk-assessment/vrrp_guidelines.pdf?sfvrsn=4

Table 3. Public Notification, Risk Reduction, and Voluntary Risk Reduction Levels

Risk Variable	Public Notification Levels	Risk Reduction Levels	Voluntary Risk Reduction Levels
Cancer risk	≥ 10 in a million	≥ 25 in a million	≥ 10 in a million
Non-cancer risk	HI > 1	HI ≥ 3	HI > 1
Cancer burden	--	≥ 0.5 excess cancer cases	--

3.7. Maximum Exposed Individual

To identify the location of the maximum exposed individual, it is necessary to examine current land use and allowable land use in the vicinity of the point of maximum impact (residential, commercial/industrial, or mixed use). Currently, the use of block group or census tract centroids as surrogates for the maximum exposed individual does not provide sufficient spatial resolution and will not be approved.

Cancer risk and non-cancer chronic hazard indices (HI) must be provided for both the most exposed residential and the most exposed commercial/industrial receptors. The non-cancer acute HI must be provided for the offsite point of maximum impact (PMI). Additionally, cancer risk and HI values at each sensitive receptor located within the zone of impact must be presented in a table. The zone of impact is discussed in the next section.

3.8. Zone of Impact

In an HRA, it is necessary to define a zone of impact or a method to set boundaries on the analysis. For AB 2588 purposes, SCAQMD requires that the HRA must encompass the area subject to an added lifetime cancer risk (all pathways) of one in one million or greater (i.e. $\geq 1.0 \times 10^{-6}$). For non-cancer risks, the analysis must bound the area subject to an HI greater than or equal to one half (≥ 0.5).

3.9. Land Use Considerations

Risk estimates are sensitive to land uses (e.g. residential, commercial, vacant) since these factors can affect exposure assumptions. If residential or worker risks are not calculated at the PMI because the land is currently vacant, then the location, zoning and potential future land uses must be discussed. Updated information on current land uses is requested when updated emission estimates are reported to SCAQMD.

3.10. Maps

Maps showing the location of the source in relation to the zone of impact must be submitted. Dispersion modeling for sources should be conducted with receptors defined in terms of Universal Transverse Mercator (UTM) coordinates and a World Geodetic System 1984 (WGS84) spatial reference system. For cancer risk, total risk isopleths for facilities should be plotted on the street

map provided using HARP at cancer risk intervals of 1, 10, 25, and 100 in a million. Isopleths for non-cancer HI must include levels corresponding to an HI of 0.5, 1.0, 3.0, and 5.0.

Separate maps should be provided for each of the four risk variables: cancer risks, non-cancer acute risks, non-cancer chronic risks, and non-cancer 8-hour chronic risks. The maps must contain an accurate scale for measuring distances and a legend. The map scale that can accommodate the isopleths and show the greatest level of detail must be used. The names of streets and other locations must be presented and be legible.

The location of schools, hospitals, day-care centers, other sensitive receptors, residential areas and work-sites within the zone of impact must be identified on the map. If the area of the zone of impact is very large, then more detail should be devoted to higher concentration/risk areas versus lower risk areas. The land uses in the vicinity of the PMI must be shown in detail. This may require a separate map. If sensitive receptors are located within the zone of impact, then cancer risk and HI values must also be presented in the form of a table including all the sensitive receptors.

3.11. Air Dispersion Modeling

Air dispersion modeling is performed for the exposure assessment of the HRA. A basic understanding of dispersion modeling is presumed. For a more detailed overview of regulatory modeling procedures, refer to the U.S. EPA's "Guideline on Air Quality Models[18]" and/or the 2015 OEHHA HRA Guidelines.

3.11.1. Facility Description and Source Information

The HRA should contain a brief description of the facility and its activities as shown in the detailed HRA outline provided in Appendix B. Table 4 lists the information on the facility and its surroundings that must be provided in the modeling analysis. The facility location is used to determine the most representative meteorological data for the analysis. The nearby land use is needed to properly label receptors as residential, commercial, sensitive, etc.

The facility plot plan (including a length scale) is needed to determine all source locations including their elevations above sea level, building dimensions, and the property boundary. The operating schedule, the hourly emission rates, the annual average emission rates, and the source parameters listed in Table 4 are necessary to accurately characterize the source emissions. Please refer to the detailed outline provided in Appendix B for additional information and guidance.

[18] https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models

Table 4. Required Source Information

Information on the Facility and Its Surroundings
- Location (i.e., address and UTM coordinates in WGS84)
- Local land use (within 20 km)
- Local topography (within 20 km)
- Facility plot plan
  - Property boundaries
  - Horizontal scale
  - Building heights (for building downwash calculations)
  - Source locations including elevations

Point Source Information (stacks, vents, etc.)
- Maximum and average hourly emission rates
- Annual emissions
- Stack location (in UTM coordinates in WGS84) on plot plan including elevation
- Stack height
- Stack gas exit velocity
- Stack gas exit temperature
- Building dimensions, heights, and location

Fugitive Source Information (area and volume sources)
- Maximum and average hourly emission rates
- Annual emissions
- Source location (in UTM coordinates in WGS84) on plot plan including elevations
- Source height
- Area or volume dimensions

3.11.2. Model Selection and Model Options

All HRAs prepared for the AB 2588 Program must use the most recent version of HARP.[19] U.S. EPA's air quality dispersion model, AERMOD, is used by HARP for the exposure assessment. AERMOD is a Gaussian plume model capable of estimating pollutant concentrations from a wide variety of sources that are typically present in an industrial source complex. Emission sources are categorized into four basic types: point, area, volume, and open pit sources. AERMOD estimates hourly concentrations for each source/receptor pair and calculates concentrations for user-specified averaging times, including an average concentration for the complete simulation period. AERMOD includes atmospheric dispersion options for both urban and rural environments and can address flat, gently rolling, and complex terrain situations. AERMOD documentation is available on the U.S. EPA website.[20] Table 5 summarizes the default dispersion modeling assumptions recommended by SCAQMD. AERMOD-ready meteorological data are available on SCAQMD's website.[21]

[19] https://www.arb.ca.gov/toxics/harp/harp.htm
[20] https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models
[21] http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data

Table 5. Summary of SCAQMD Dispersion Modeling Guidance

Parameter	Assumption
Model Control Options	
• Use Regulatory Default?	Yes
• Urban or Rural?	Urban
Source Options	
• Include Building Downwash?	Yes
Meteorology Options	
• Meteorological Data	AERMOD-ready data available on SCAQMD website. See section 3.11.3.

AERMOD should be executed using the urban dispersion parameters (i.e., URBAN), which is SCAQMD policy for all air quality impact analyses in its jurisdiction. The U.S. EPA regulatory default options should be used for all projects. If non-default options are used, a justification must be included and SCAQMD staff approval is needed.

3.11.3. Meteorological Data

SCAQMD has AERMOD-ready meteorological data for the South Coast Air Basin available on the SCAQMD website including a map showing the locations of meteorological stations with AERMOD-ready data, a table listing the meteorological data for the meteorological stations, and a list of station data including abbreviations, geographical information, and surface characteristics.[22]

The most representative meteorological station should be chosen for modeling which in most cases, is the nearest station; however, an intervening terrain feature may dictate the use of an alternate station. Modelers should contact AB 2588 Program staff regarding the most representative meteorological station, if necessary. The data are available on the following SCAQMD website.[23]

3.11.4. Receptor Grid

Air dispersion modeling is required to estimate (a) annual average concentrations to calculate the Maximum Individual Cancer Risk (MICR), the maximum chronic HI, the zones of impact, and excess cancer burden and (b) peak hourly concentrations to calculate the health impact from substances with acute non-cancer health effects. To achieve these goals, the receptor grid should begin at the facility fence line and extend to cover the zone of impact. In addition, the receptor grid should be fine enough to identify the points of maximum impact.

To identify the maximum impacted receptors (i.e., peak cancer risk and peak hazard indices) a grid spacing of 100 meters or less must be used. All receptors should be identified in UTM coordinates. Receptor grid points outside of the facility boundary must be placed so that individual grid points

[22] http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data
[23] http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod

are placed at UTM coordinates ending in "00" (e.g., grid point UTM East 572300 and UTM North 3731000). Receptor grids with less than 100 meter spacing must include grid points at UTM coordinates ending in "00." Elevations must be provided for all receptor grids.

Receptors on the facility boundary must be placed along the boundary following the maximum spacing requirements shown in Table 6. Sensitive receptors must be identified by exact UTM coordinates. Elevations must be provided for all receptors.

Table 6. Maximum Receptor Spacing Requirements for Fenceline Receptors

Area of Facility	Maximum Receptor Spacing
Area < 4 acres	20 meters
4 acres ≤ Area < 10 acres	30 meters
10 acres ≤ Area < 25 acres	50 meters
25 acres ≤ Area < 100 acres	75 meters
Area ≥ 100 acres	100 meters

3.11.5. Stacks with Raincaps and Area Sources

Emission release points with raincaps or which are oriented so that the exhaust is vented downward or horizontally may not use the velocity inside the stack as the vertical velocity of the point source in the model. However, as a point source must be modeled with some vertical velocity, these stacks may be modeled with a positive vertical velocity of no more than 0.01 meters per second. In general, if there is uncertainty on how to represent sources in a model, AB 2588 Program staff should be consulted before proceeding with modeling.

According to U.S. EPA guidance for area sources in AERMOD, the aspect ratio (i.e., length/width) for area sources should be less than 10 to 1. If this is exceeded, then the area should be subdivided to achieve a 10 to 1 or less aspect ratio for all sub-areas.

3.12. HRA

SCAQMD requires that all HRAs for the AB 2588 Program be prepared in accordance with OEHHA and CARB guidance[24] and using the latest approved version of HARP. The OEHHA Guidelines requires at least a Tier-1 evaluation, which allows for Derived Risk Calculations. The Derived method uses high end exposure parameters for the top two exposure pathways and mean exposure parameters for the remaining pathways for cancer risk estimates. For chronic non-cancer assessments, the Derived method uses high end exposures for the top three exposure pathways. CARB has developed an updated Risk Management Policy that includes recommendations for inhalation exposures,[25] which recommends using high end breathing rates (95th percentile) for children from the 3rd trimester through age 2, and 80th percentile breathing rates for all other ages

[24] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

[25] Information regarding CARB's Risk Management policy can be located at: https://www.arb.ca.gov/toxics/toxics.htm

for residential exposures. In accordance with these guidelines, SCAQMD recommends Derived Risk Calculations using CARB's Risk Management Policy to be prepared and presented in an HRA. CARB prepared HARP to facilitate the preparation and transmittal of a compliant ATIR and HRA. The details are provided below.

3.12.1. OEHHA Guidance

OEHHA's guidance for preparing HRAs is contained in the *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*.[26] This guidance manual has undergone public and peer review, was endorsed by the California Scientific Review Panel (SRP), and approved by OEHHA in March 2015.

The 2015 OEHHA HRA Guidelines recognizes four types of evaluations.

Tier-1: point estimate, using standard assumptions

Tier-2: point estimate, using site-specific details

Tier-3: stochastic risk, using standard assumptions

Tier-4: stochastic risk, using site-specific details

The details are described in the 2015 OEHHA HRA Guidelines.

"Tier-1 is a standard point-estimate approach using the recommended point-estimates presented in this document. […] Tier-1 evaluations are required for all HRAs prepared for the Hot Spots Program." (see Section 2.5.3. of 2015 OEHHA HRA Guidelines[26])
"[T]he Tier-1 evaluation is useful in comparing risks among a large number of facilities and must be included in all HRAs." (see Section 8.2.5.C. of 2015 OEHHA HRA Guidelines[26])

As such, SCAQMD requires that all HRAs for the AB 2588 Program contain at least a Tier-1 evaluation. The results of the Tier-1 evaluation are used for comparative and regulatory purposes (i.e., risk status, fee category, public notice, and risk reduction).

The Executive Summary and main body of the HRA shall contain only statements regarding the results of the Tier-1 evaluation. Tier-2, Tier-3, and Tier-4 evaluations should not be in the Executive Summary or main document; they may be prepared and presented as appendices to the main document. Site specific details for either a Tier-2, Tier-3, or Tier-4 evaluation will require review and approval by OEHHA, CARB, and SCAQMD.

3.12.3. HARP

HARP is designed to meet the programmatic requirements of the AB 2588 Program and will calculate all four OEHHA Tiers, both the Derived Risk Calculations (as designed by OEHHA), and CARB's "Risk Management Policy Inhalation Rates for Residential Cancer Risk Calculations."

[26] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

The outline for an HRA is contained in Appendix B. The list of files that must be submitted with an HRA for the AB 2588 Program are included in Table 7. Any emissions factor development, emission rate calculations, or approved source test protocol and reports must be submitted in electronic format (e.g., in Microsoft Excel). If these items have been attached to the AER report, please refer to it in the cover letter to avoid a redundant submittal.

Table 7. Files that must be provided with HRA submittals

File Type	Notes
HRA Input	All files created by CARB's Air Dispersion Modeling and Risk Tool (ADMRT) Module
HRA Output	
Dispersion Modeling Input	All AERMOD and BPIP files used in the HRA including terrain data. All meteorological data files including any AERMET files if default SCAQMD meteorological data is not used.
Dispersion Modeling Output	
Emission Inventory Input	All files created by CARB's Emission Inventory Module (EIM)
Emission Inventory Output	
Emission Calculations	Provided in electronic format (e.g., Excel) and documented references (i.e. sample calculations)
Source Tests	Only SCAQMD-approved source tests can be used. SCAQMD approval must be included in submittal.
Air Monitoring Data	Any monitoring data used in the HRA should be provided.

3.12.4. SCAQMD's Default Assumptions for HRAs

All HRAs prepared for SCAQMD must include an OEHHA Tier-1 evaluation. All SCAQMD risk management decisions are based on the Tier-1 evaluation. Tier-2, Tier-3, and Tier-4 evaluations may be prepared but must be included in an appendix to the HRA. The results of the Tier-2, Tier-3, and/or Tier-4 evaluations must not be included in the Executive Summary or main body of the HRA. Table 8 summarizes the HRA assumptions required by SCAQMD. Deviations from these defaults must be approved by SCAQMD staff prior to their use.

Residential cancer risks assume a 30-year exposure (cancer burden assumes a 70-year exposure) and must include, at a minimum, the following pathways: home grown produce, dermal absorption, soil ingestion, and mother's milk. A deposition velocity of 0.02 m/s should be assumed for the non-inhalation pathways. The HRA should assume default values in HARP for all pathways with the exception of the dermal pathway which should assume a "warm" climate. The other pathways of fish ingestion, dairy milk ingestion, drinking water consumption, and meat (i.e., beef, pork, chicken, and egg) ingestion should be included only if the facility impacts a local fishable body of water, grazing land, dairy, or water reservoir. The "RMP Using the Derived Method" risk calculation option should be used for estimating cancer risks at residential receptors. To estimate chronic non-cancer risks at residential receptors the "OEHHA Derived Method" risk calculation option should be used. The 8-hour chronic non-cancer risk should also be calculated for residential receptors for any source that operates at least 8 hours per day and 5 days per week.

Table 8. Summary of SCAQMD Health Risk Assessment Guidance

Parameter	Assumptions
Multipathway	
• Inhalation	Required for residential and worker receptors
• Dermal	Required for residential and worker receptors
• Soil	Required for residential and worker receptors
• Homegrown Produce	Required for residential receptors
• Mother's Milk	Required for residential receptors
• Beef/Dairy	Site specific
• Pigs, Chickens, and/or Eggs	Site specific
• Deposition Velocity	0.02 meters per second
• MP Exposure Assumptions	Use HARP defaults except for dermal pathway which uses "warm" climate
Residential Cancer Risk Assumptions	
• Exposure Duration	30 years for individual receptors 70 years for cancer burden
• Analysis Option	RMP Using the Derived Method
Worker Cancer Risk Assumptions	
• Exposure Duration	25 years
• Analysis Option	OEHHA Derived Method
Residential and Worker Non-Cancer Risk Assumptions	
• Analysis Option	OEHHA Derived Method

Worker cancer risks assume a 25-year exposure and must include the pathways of dermal absorption and soil ingestion. A deposition velocity of 0.02 m/s should be assumed for these pathways and the dermal pathway should assume a 'warm' climate. The "OEHHA Derived Method" risk calculation option should be used for estimating cancer and non-cancer chronic risks at worker receptors.

The air concentration that the neighboring workers breathe when present at work is different than the annual average concentration calculated by AERMOD. The annual average estimated by AERMOD is a 24 hours per day, 7 days per week, 365 days per year average, regardless of the actual operating schedule of the emitting facility. It is assumed the off-site worker is impacted by the toxic emissions only during work hours. Thus, the model-predicted concentrations must be adjusted by a multiplying factor to reflect the pollutant concentration that the worker breathes. For example, suppose that the off-site worker and the emitting facility have the same operating schedule, perhaps 8 hours per day, 5 days per week, and 52 weeks per year. The annual average concentrations predicted by AERMOD must be adjusted by a factor of 4.2 (i.e., 7/5 x 24/8). Please refer to the 2015 OEHHA HRA Guidelines for further information.

The adjustment factors for all possible operating schedules are provided in Tables 5.1 and 5.2 of SCAQMD *Permit Application Package "N" For Use in Conjunction with the Risk Assessment*

Procedures for Rules 1401, 1401.1, and 212.[27] These factors are entered into HARP by activating the Worker Adjustment Factor (WAF) option in the Inhalation Pathway and entering the appropriate factor from either one of the tables.

The adjustments in Tables 5.1 and 5.2 should only be applied when estimating worker cancer risks for facilities that do not operate continuously. The adjustments are not applicable to residential cancer risks and to residential or worker chronic non-cancer risks.

[27] http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/attachmentn-v8-1.pdf

Appendix A

Elements of an Air Toxics Inventory Report

1. Report Summary (hard copy)

- Facility name, Facility ID, and location
- Facility plot plan identifying: emission source location, property line, horizontal scale, and building heights and dimensions
- Facility total emission rate by substance for all emittants including the following information (2015 OEHHA HRA Guidelines Appendix A-I Substances must be quantified in the inventory report):
  - substance name and CAS number
  - annual average emission for each substance (lb/yr and g/s)
  - maximum one-hour emissions for each substance (lbs/hr and g/s)
- Supporting documentation such as source test report and SCAQMD approval letter if emissions are measured

2. Use the EIM portion of HARP to provide facility, device, process, emissions, and stack data in a HARP database, including but not limited to the following information:

- Source identification number used by the facility
- Source name
- SCAQMD permit number if available
- Source location using UTM coordinates (in meters) with a WGS84 projection
- Source base elevation (m)
- Source height (m)
- Source dimensions (e.g., stack diameter, building dimensions, area/volume size, etc.) (m)
- Stack gas exit velocity (m/s) if applicable
- Stack gas volumetric flow rate (ACFM) if applicable
- Stack gas exit temperature (K)
- Number of operating hours per day
- Number of operating days per week
- Number of operating weeks per year
- Report emission control equipment and efficiency by source and by substance.

The description should be brief.

- Report annual average and maximum hourly emission rates for each toxic substance for each source
- Report emission inventory methods indicating whether emissions are measured or estimated

Appendix B

Outline for the HRA

I. Table of Contents

- Section headings with page numbers indicated
- Tables and figures with page numbers indicated
- Definitions and abbreviations. Must include a definition of acute, 8-hour chronic, chronic, and cancer health impacts
- Appendices with page numbers indicated

II. Executive Summary

- Name of facility and the complete address
- Facility ID number
- Description of facility operations and a list identifying emitted substances, including a table of maximum 1-hour and annual emissions in units of lbs/hr and lbs/yr, respectively
- List the multipathway substances and their pathways
- Text presenting overview of dispersion modeling and exposure assessment
- Text defining dose-response assessment for cancer and non-cancer health impacts and a table showing target organ systems by substance for non-cancer impacts
- Summary of results (See Attachment A to this Appendix). Potential cancer risks for residents must be based on 30-year, Tier-1 analysis and potential cancer risks for workers must be based on 25-year, Tier-1 analysis. Cancer burden results must be based on 70-year, Tier-1 analysis
    - Location (address or UTM coordinates) and description of the off-site PMI, maximum exposed individual resident (MEIR), and maximum exposed individual worker (MEIW). See Attachment A for the required summary form
    - Location (address or UTM coordinates) and description of any sensitive receptors that are above a cancer risk of ten in one million or above a non-cancer health HI of one
    - Text presenting an overview of the total potential multipathway cancer risk at the PMI, MEIR, MEIW, and sensitive receptors (if applicable). Provide a table of cancer risk by substance for the MEIR and MEIW. Include a statement indicating which of the substances appear to contribute to (i.e., drive) the potential health impacts. In addition, identify the exposure pathways evaluated in the HRA
    - Provide a map of the facility and surroundings and identify the location of the MEIR, MEIW, and PMI
    - Provide a map of 30-year lifetime cancer risk zone of impact (i.e., 1 in one million risk contour), if applicable. Also show the 10, 25, and 100 in one million risk contours, if applicable. If the cancer burden is greater than 0.5, then a map showing the 1 in one million risk contour based on a 70-year lifetime should also be presented
    - Text presenting an overview of the acute and chronic non-cancer hazard quotients or the (total) hazard indices for the PMI, MEIR, MEIW, and sensitive receptors.

Include separate statements (for acute, 8-hour chronic, and annual chronic exposures) indicating which of the substances appear to drive the potential health impacts. In addition, clearly identify the primary target organ(s) that are impacted from acute and chronic exposures
- Identify any subpopulations (e.g., subsistence fishers) of concern
- Table and text presenting an overview of estimates of population exposure
- Version of the Risk Assessment Guidelines and computer program(s) used to prepare the risk assessment

III. Main Body of Report

A. Hazard Identification

- Table and text identifying all substances emitted from the facility. Include the CAS number of substance and the physical form of the substance if possible. The complete list of the substances to be considered is contained in Appendix A of the 2015 OEHHA HRA Guidelines[28]
- Table and text identifying all substances that are evaluated for cancer risk and/or non-cancer acute and chronic health impacts. In addition, identify any substances that present a potential cancer risk or chronic non-cancer hazard via non-inhalation routes of exposure
- Describe the types and amounts of continuous or intermittent predictable emissions from the facility that occurred during the reporting year. As required by statute, releases from a facility include spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping (fugitive), leaching, dumping, or disposing of a substance into ambient air. Include the substance(s) released and a description of the processes that resulted in long-term and continuous releases

B. Exposure Assessment

This section describes the information related to the air dispersion modeling process that should be reported in the risk assessment. In addition, doses calculated by pathway of exposure for each substance should be included in this section. The educated reader should be able to reproduce the risk assessment without the need for clarification. The location of any information that is presented in appendices, on electronic media, or attached documents that supports information presented in this section, must be clearly identified by title and page number in this section's text and in the document's table of contents.

B.1 Facility Description

[28] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

Report the following information regarding the facility and its surroundings:

- Facility name
- Facility ID number
- Facility location (i.e., address)
- Local topography
- Facility plot plan identifying: emission source locations, property line, horizontal scale, building heights and dimensions
- Description of the site/route dependent exposure pathways. Provide a summary of the site-specific inputs used for each pathway (e.g., water or grazing intake assumptions). This information may be clearly presented and cross-referenced to the text in an appendix

B.2 Emissions Inventory

Report the following information regarding the facility's sources and emissions in table format; see Appendix K of 2015 OEHHA HRA Guidelines.[29] Depending on the number of sources and/or pollutants, this information may be placed in the main body of the report or in an appendix

- Source identification number used by the facility
- Source name
- Source location using UTM coordinates (in meters); with a WGS84 projection
- Source base elevation (m)
- Source height (m)
- Source dimensions (e.g., stack diameter, building dimensions, area/volume size, etc.) (m)
- Stack gas exit velocity (m/s) if applicable
- Stack gas volumetric flow rate (ACFM) if applicable
- Stack gas exit temperature (K)
- Number of operating hours per day and per year
- Number of operating days per week
- Number of operating days or weeks per year
- Report emission control equipment and efficiency by source and by substance. The description should be brief.
- Report emission inventory methods indicating whether emissions are measured or estimated.
- Report emission rates for each toxic substance, grouped by source, in table form

[29] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

including the following information (see Appendix K of 2015 OEHHA HRA Guidelines). Depending on the number of sources and/or pollutants, this information may be placed in the main body of the report or in an appendix

- Source name
- Source identification number
- Substance name and CAS number
- Annual average emissions for each substance (lbs/yr and g/s). Radionuclides are reported in curies/yr
- Maximum one hour emissions for each substance (lbs/hr and g/s). Radionuclides are reported in millicuries/yr
- Report facility total emission rates by substance for all emittants including the following information (see Appendix K of 2015 OEHHA HRA Guidelines). This information should be in the main body of the report
- Substance name and CAS number
- Annual average emissions for each substance (lbs/yr and g/s). Radionuclides are reported in curies/yr
- Maximum one-hour emissions for each substance (lbs/hr and g/s). Radionuclides are reported in millicuries/yr

B.3 Air Dispersion Modeling

- The HRA should indicate the source and time period of the meteorological data used. Include the meteorological data electronically with the HRA. SCAQMD has AERMOD-ready meteorological data for available stations in the South Coast Air Basin. This data can be downloaded from SCAQMD's website[30]
- Include proper justification for using the meteorological data. The nearest representative meteorological station should be chosen for modeling. Usually this is simply the nearest station to the facility; however, an intervening terrain feature may dictate the use of an alternate site
- The latest approved version of AERMOD and HARP should be used for all HRAs prepared for the AB 2588 Program
- Table and text that specifies the following information:
  - Selected model options and parameters
  - Receptor grid spacing
- For the PMI, MEIR, MEIW, and any sensitive receptors required by SCAQMD, include tables that summarize the annual average concentrations calculated for all substances
- For the PMI, MEIR, MEIW, and any sensitive receptors required by SCAQMD,

[30] http://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data

include tables that summarize the maximum one-hour; chronic 8-hour; and 90-day rolling average (lead only) concentrations

C. Risk Characterization

HARP generates the risk characterization data needed for the outline below. Any data needed to support the risk characterization findings should be clearly presented and referenced in the text and appendices. A listing of HARP files that meet these HRA requirements are provided in Section V. All HARP files should be included in the HRA. Ideally, the HRA report and a summary of data used in the HRA should be on paper and all data and model input and output files should be provided electronically.

The potential cancer risk for the PMI, MEIR, and sensitive receptors of interest must be presented in the HRA's text, tables, and maps using a residential 30-year exposure period. MEIW location should use appropriate exposure periods. For the AB 2588 Program, the 30-year exposure duration should be used as the basis for residential public notification and risk reduction audits and plans. All HRAs must include the results of a Tier-1 exposure assessment. If persons preparing the HRA would like to present additional information (i.e., exposure duration adjustments or the inclusions of risk characterizations using Tier-2 through Tier-4 exposure data), then this information should be presented in separate, clearly titled, sections, tables, and text.

The following information should be presented in this section of the HRA. If not fully presented here, then by topic, clearly identify the section(s) and pages within the HRA where this information is presented.

- Description of receptors to be quantified
- Identify the site/route dependent exposure pathways (e.g., water ingestion) for the receptor(s), where appropriate (e.g., MEIR). Provide a summary of the site-specific inputs used for each exposure pathway (e.g., water or grazing intake assumptions). In addition, provide reference to the appendix (section and page number) that contains the modeling (i.e., HARP/dispersion modeling) files that show the same information
- Tables and text providing the following information regarding the potential multipathway cancer risks at the PMI, MEIR, MEIW, and any sensitive receptors of concern:
  - Location in UTM coordinates
  - Contribution by substance
  - Contribution by source
- Tables and text providing the following information regarding the acute non-cancer hazard quotient at the PMI, MEIR, MEIW, and any sensitive receptors of concern:
  - Location in UTM coordinates
  - Target organ(s)
  - Contribution by substance
  - Contribution by source

- Tables and text providing the following information regarding the chronic non-cancer (inhalation and oral) hazard quotient at the PMI, MEIR, MEIW, and any sensitive receptors of concern:
  - Location in UTM coordinates
  - Target organ(s)
  - Contribution by substance
  - Contribution by source
- Table and text presenting estimates of population exposure. Tables should indicate the number of persons exposed to a total cancer risk greater than 10^{-6}, 10^{-5}, 10^{-4}, etc. and total hazard quotient or HI greater than 0.5, 1.0, 3.0, and 5.0. Total excess cancer burden should also be provided
- Provide maps that illustrate the HRA results as noted below. The maps should be an actual street map of the area impacted by the facility with UTM coordinates and facility boundaries clearly labeled. This should be a true map (i.e., one that shows roads, structures, etc.), drawn to scale, and not a schematic drawing. Color aerial photos are usually the most appropriate choice. The following maps are required:
  - Locations of the PMI, MEIR, MEIW, and sensitive receptors for the cancer and non-cancer acute and chronic risks. Also show the facility emission points and property boundary
  - Total cancer risk (including multipathway factors) contours for the following risk levels: 100, 25, 10, and 1 in a million. Maps should be provided for the minimum exposure pathways (i.e., inhalation, soil ingestion, dermal exposure, and mother's milk) and for all applicable exposure pathways (i.e., minimum exposure pathways plus additional site/route specific pathways). Include the facility location on the maps
  - Non-cancer acute and chronic HI contours for the following levels: 5.0, 3.0, 1.0 and 0.5. Include the facility location
- The risk assessor may want to include a discussion of the strengths and weaknesses of the risk analyses and associated uncertainty directly related to the facility HRA
- If appropriate, comment on the possible alternatives for control or remedial measures
- If possible, identify any community concerns that influence public perception of risk

D. References

IV. Appendices

The appendices should contain all data, sample calculations, assumptions, and all modeling and risk assessment files that are needed to reproduce the HRA results. All data and model input and output files should be provided electronically (e.g., uploaded to SCAQMD's OnBase system or on USB Flash Drive). All appendices and the information they contain should be referenced, clearly titled, and paginated. The following are potential appendix topics unless presented elsewhere in the HRA:

- List of all receptors in the zone of impact and their associated risks
- Emissions by source
- Census data
- Maps and facility plot plan
- All calculations used to determine emissions, concentrations, and potential health impacts at the PMI, MEIR, MEIW, and sensitive receptors
- Presentation of alternate risk assessment methods (e.g., alternate exposure durations, or Tier-2 to Tier-4 evaluations with supporting information)

V. Computer Files

The list of electronic files that must be submitted for the HRA are found in Table 7 of Chapter 3 of this document. They must be useable (i.e., can be opened and run in AERMOD/HARP if file is an AERMOD/HARP file). Any supplementary files should be submitted in formats that will not lose formatting in transfer (i.e. pdf for text documents).

Attachment A to Appendix B

HRA Summary Form

This summary form should accompany all HRAs and be presented at the beginning of the Executive Summary.

South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

HEALTH RISK ASSESSMENT SUMMARY FORM

(Required in Executive Summary of HRA)

Facility Name : _____
Facility Address: _____
_____
Type of Business: _____
SCAQMD ID No.: _____

A. Cancer Risk

(One in a million means one chance in a million of getting cancer from being constantly exposed to a certain level of a chemical over a period of time)

1. Inventory Reporting Year : _____
2. Maximum Cancer Risk to Receptors : *(Offsite and residence = 30-year exposure, worker = 25-year exposure)*
   a. Offsite _____ in a million Location: _____
   b. Residence _____ in a million Location: _____
   c. Worker _____ in a million Location: _____
3. Substances Accounting for 90% of Cancer Risk: _____
   Processes Accounting for 90% of Cancer Risk: _____
4. Cancer Burden for a 70-yr exposure: *(Cancer Burden = [cancer risk] x [# of people exposed to specific cancer risk])*
   a. Cancer Burden _____
   b. Number of people exposed to >1 per million cancer risk for a 70-yr exposure _____
   c. Maximum distance to edge of 70-year, 1 x 10^{-6} cancer risk isopleth (meters) _____

B. Hazard Indices

[Long Term Effects (chronic) and Short Term Effects (acute)]
(non-carcinogenic impacts are estimated by comparing calculated concentration to identified Reference Exposure Levels, and expressing this comparison in terms of a "Hazard Index")

1. Maximum Chronic Hazard Indices:
   a. Residence HI: _____ Location: _____ toxicological endpoint: _____
   b. Worker HI : _____ Location: _____ toxicological endpoint: _____
2. Substances Accounting for 90% of Chronic Hazard Index: _____
3. Maximum 8-hour Chronic Hazard Index:
   8-Hour Chronic HI: _____ Location: _____ toxicological endpoint: _____
4. Substances Accounting for 90% of 8-hour Chronic Hazard Index: _____
5. Maximum Acute Hazard Index:
   PMI: _____ Location: _____ toxicological endpoint: _____
6. Substances Accounting for 90% of Acute Hazard Index: _____

C. Public Notification and Risk Reduction

1. Public Notification Required? ____ Yes ____ No
   a. If 'Yes', estimated population exposed to risks > 10 in a million for a 30-year exposure, or an HI >1
   _____
2. Risk Reduction Required? ____ Yes ____ No

Revised 4/30/2015

Appendix C

HRA Review Check List

The check list contained here is used by SCAQMD staff to standardize the review of HRAs. It is being provided to assist facilities and consultants in their HRA preparation.

Facility Name:	**Facility ID:**
Street Address:	
City:	**Zip Code:**
HRA Consultant:	**Reviewer:**

Dispersion Modeling

1. Control Pathway
   a. "Regulatory Default Option" checked? **Yes No**
      i) If No, explain why:_____
   b. Urban Option
      i) "Apply All Sources" checked? **Yes No**
      ii) "Population" from the latest Census data is added for county? **Yes No**
      iii) "Roughness Length" = 1.0 (default value) **Yes No**
2. Source Pathways
   a. Sources
      i) Check if source list is consistent with following documents:
         - Base Year AER source list? **Yes No**
         - District equipment list (permit list)? **Yes No**
      ii) "Source Type" determined properly? **Yes No**
      iii) "Volume/Area source dimensions" are reasonable? **Yes No**
      iv) "UTMs" are consistent with Plot Plan? **Yes No**
      v) "Elevation" of source(s) are imported from AERMAP output file? **Yes No**
      vi) Adequate "Emission Rates" used? (default 1 g/s) **Yes No**
      vii)"Release Heights" reasonable? **Yes No**
      viii) Stack parameters are consistent with those provided in the report **Yes No**
      ix) Accurate and sufficient details entered for every source? **Yes No**
   b. Variable Emissions
      i) Default emission rate used? (default: 1 g/s, 24 hrs/day, 365 days/yr) **Yes No**
      ii) If not, appropriate emission rate factors are used? (Table 2) **Yes No**
   c. Buildings
      i) All surrounding buildings included? **Yes No**
      ii) Tier Heights and corner points reasonable? **Yes No**

- If No in any, _

3. Receptors
   a. Grid receptors
      i) Included? (should be "Yes") **Yes No**
      ii) Spacing? (should be no greater than 100 meters) **Yes No**
         - Assumed spacing_____meters
      iii) Elevations included? (should be "Yes") **Yes No**
      iv) Is gridded area sufficient to cover acceptable risk levels? **Yes No**
   b. Property boundary receptors
      i) Included? (should be "Yes") **Yes No**
      ii) Spacing? (should follow guidance in Table 3) **Yes No**
         - Assumed spacing_____meters
      iii) Elevations included (should be "Yes") **Yes No**
   c. Sensitive receptors
      i) Included? (should be "Yes" if cancer risks >1 in a million) **Yes No**
      ii) Elevation included? (should be "Yes") **Yes No**
      iii) Verified from review of Google Earth or other source **Yes No**
   d. Census block receptors
      i) Included? (should be "Yes" if cancer risks >1 in a million) **Yes No**
      ii) Elevation included? (should be "Yes") **Yes No**
   e. Pathway receptors included? (should be "No") **Yes No**
4. Meteorology Pathway (The latest met data files shall be used.)
   a. Surface Met Data File: _____.sfc
   b. Profile Met Data File:_____.pfl
   c. Base Elevation of Met Station (PROFBASE):_____meters
   d. Does the Met Station reflect prevailing meteorological conditions (ex., prevailing winds), surrounding land use, and topography that exists at the source? This is not always the closest Met Station (Table 1) **Yes No**
5. Terrain Option
   a. (Step 1) is Anchor location correct? **Yes No**
   b. (Step 2) is appropriate DEM/NED data file linked? **Yes No**

i) DEM/NED file used: _____

ii) Is (Are) the DEM/NED file(s) covering sufficient area? **Yes No**

c. (Step 3) independently ran AERMAP? **Yes No**

6. Building Downwash
7. Independently ran BPIP Prime? **Yes No** Duplication of AERMOD Results
   a. Independently ran AERMOD? **Yes No**
   b. Average χ/Q first high values for each source group reproduced? **Yes No** (not required; useful if diagnosing discrepancies)
   c. Max 1-hour χ/Q first high values for each source group reproduced? **Yes No** (not required; useful if diagnosing discrepancies)
8. All plt files are generated successfully? **Yes No**

Site Visit

- Site visit conducted? **Yes No**
  a. If Yes, **Date** **Time** ,
  b. Facility Contact: _____
  c. SCAQMD Staff: _____

Program Used

1. Facility submittal package is processed by the latest version of HARP? **Yes No**
   a. If NOT, name software used: _____
2. This review is performed using the latest version of HARP? **Yes No**
   a. If NOT, name software used: _____

General Comments

_____

_____

_____

Appendix D

Elements of a Risk Reduction Plan

INTRODUCTION

Facilities with an approved HRA with health risks greater than or equal to the Action Risk Levels as identified in SCAQMD Rule 1402 are required to submit an RRP within the specified timeframes for each specific category as specified in the Rule. Facilities participating in the Voluntary Risk Reduction Program under Rule 1402 should follow the *Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program* that are available online.[31] The owner or operator is responsible for preparing a RRP that identifies the risk reduction measures that should be implemented in order to reduce the impact of the total facility emissions below the Action Risk Levels.

ELEMENTS OF A RISK REDUCTION PLAN

1. The name, address, and SCAQMD facility identification number, and Standard Industrial Code (SIC) and North American Industry Classification System (NAICS) codes of the facility;
2. A facility risk characterization which includes an updated ATIR and HRA, if the risk due to total facility emissions has increased above or decreased below the levels indicated in the previously approved HRA;
3. Identification of each source from which risk needs to be reduced in order to achieve a risk below Rule 1402 Action Risk Levels;
4. For each source identified in subparagraph (3), an evaluation of the risk reduction measures available to the owner or operator, including emission and risk reduction potential, and time necessary for implementation;
    - An updated ATIR and HRA if total facility risks are different than what was approved in the previously approved HRA.
5. Specification of the risk reduction measures that shall be implemented by the owner or operator to comply with the requirements of Rule 1402, subdivision (i) to achieve the Action Risk Level or the lowest achievable level;
6. A schedule for implementing the specified risk reduction measures as quickly as feasible. The schedule shall include the submittal of all necessary applications for permits to construct or modify within 180 days of approval of the RRP, or in accordance with another schedule subject to approval by the Executive Officer, and specify the dates for other increments of progress associated with implementation of the risk reduction measures;
7. If requesting a time extension, the plan must also include the following information:
    - A description of the risk reduction measure(s) for which a time extension is needed;
    - The reason(s) a time extension is needed;
    - Progress in implementing risk reduction measures in the plan;
    - For RRPs, estimated health risks at the time of the extension request and at the end

[31] http://www.aqmd.gov/docs/default-source/planning/risk-assessment/vrrp_guidelines.pdf?sfvrsn=4

of the risk reduction period; and the length of time extension requested.

The Executive Officer will review the request for the time extension and will approve or reject the time extension based on the following criteria:

- The facility-wide health risk is below the Significant Risk Level at the time of submittal of the time extension request;
- The owner or operator provides sufficient details identifying the reason(s) a time extension is needed that demonstrates to the Executive Officer that there are specific circumstances beyond the control of the owner or operator that necessitate additional time to complete implementation of the plan. Such a demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility; and
- The time extension will not result in an unreasonable risk to public health.

8. An estimation of the residual health risk after implementation of the specified risk reduction measures; and
9. Proof of certification of the RRP as meeting all requirements by an individual who is officially responsible for the processes and operations of the facility. The person who makes this certification must be one of the following:
    - An engineer who is registered as a professional engineer pursuant to Business and Professional Code section 6762.
    - An individual who is responsible for the operations and processes of the facility.
    - An environmental assessor registered pursuant to Health and Safety Code section 25570.3.

Appendix E

Elements of a Risk Reduction Progress Report

INTRODUCTION

Facilities with an approved RRP or VRRP as identified in SCAQMD Rule 1402 are required to submit an **Annual Progress Report** every twelve months as long as their total facility risk meets or exceeds the Rule 1402 Action or Significance Risk Levels.

ELEMENTS OF A RISK REDUCTION PROGRESS REPORT

1. A description of any increases or decreases in emissions of toxic air contaminants that have occurred at the facility, including a description of any associated permits that were subject to Rule 1401, since approval of the RRP or VRRP;
2. The increments of progress (interim facility risks) achieved in implementing the risk reduction measures specified in the RRP or VRRP. The interim facility risk should represent the previous twelve month period;
3. Submittal dates of all applicable permit application(s), the status of the application(s), the name of the regulatory agency, and the corresponding permit number(s);
4. A schedule indicating dates for future increments of progress; and
5. Identification of any increments of progress that will be achieved later than specified in the plan and the reason for achieving the increments late.

Appendix F

Elements of Early Action Reduction Plans for Potentially High Risk Level Facilities

INTRODUCTION

Facilities designated as a Potentially High Risk Level Facility by the Executive Officer, as identified in SCAQMD Rule 1402, are required to submit an Early Action Reduction Plan within 90 days of notification of such designation. The purpose of the Early Action Reduction Plan is to expedite risk reduction to mitigate the elevated health risk to protect public health.

ELEMENTS OF AN EARLY ACTION REDUCTION PLANS FOR POTENTIALLY HIGH RISK LEVEL FACILITIES

Within 90 days of the date of notification by the Executive Officer that the facility is a Potentially High Risk Level Facility, an owner or operator shall submit an Early Action Reduction Plan that identifies a list of measures that can be implemented immediately to reduce the facility-wide health risk. The Early Action Reduction Plan shall include:

1. The name, address, and SCAQMD Facility ID number;
2. Identification of device(s) or process(es) that are the key health risk driver(s);
3. Risk reduction measure(s) that can be implemented by the owner or operator that includes but are not limited to procedural changes, process changes, physical modifications, and curtailments; and
4. A schedule for implementing the specified risk reduction measures.

Appendix G

List of Acronyms and Abbreviations

List of Acronyms and Abbreviations

Acronym	Description
AB 2588	Air Toxics "Hot Spots" Information and Assessment Act
AER	Annual Emissions Reporting
ATIR	Air Toxics Inventory Report
CARB	California Air Resources Board
CAS	Chemical Abstracts Service
DICE	Diesel Internal Combustion Engine
EIM	Emission Inventory Module
HARP	Hotspots Analysis and Reporting Program
HI	Hazard Index
HRA	Health Risk Assessment
MEIR	Maximum Exposed Individual Resident
MEIW	Maximum Exposed Individual Worker
MICR	Maximum Individual Cancer Risk
NAICS	North American Industry Classification System
ODC	Ozone Depleting Compound
OEHHA	Office of Environmental Health Hazard Assessment
PMI	Point of Maximum Impact
RRP	Risk Reduction Plan
SB 1731	Facility Air Toxic Contaminant Risk Audit and Reduction Plan
SIC	Standard Industrial Code
SRP	(California) Scientific Review Panel
SCAQMD	South Coast Air Quality Management District
U.S. EPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VRRP	Voluntary Risk Reduction Plan
WAF	Worker Adjustment Factor
WGS84	World Geodetic System 1984

ATTACHMENT 4

South Coast Air Quality Management District

Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program

September 2018

Preface

This version of the Voluntary Risk Reduction Program Guidelines updates the previous October 2016 version. This is intended to be a "living" document, which staff will update periodically with updated procedures and requirements. The major revisions to this document from the previous October 2016 version include:

- Clarifying required facility information (refer to Section 2.1);
- Clarifying the types of emissions to be included in the emissions inventory;
- Adding a requirement to provide process flow diagram(s) for equipment emitting toxic air contaminants;
- Reorganizing the "Current Facility Risk Characterization" section to match the way the information in the Emissions Inventory Module of CARB's HARP program is listed (refer to Section 2.2);
- Clarifying the required elements of the "Proposed Facility Risk Characterization" section and how to represent proposed changes in the Emissions Inventory file (refer to Section 2.3);
- Clarifying all required elements of the Voluntary Risk Reduction Plan (refer to Sections 2.4 and 2.5); and
- Including screenshots which show required entries using the Emissions Inventory Module of CARB's HARP program (refer to Appendix A – Required Entries to EIM).

TABLE OF CONTENTS

1. INTRODUCTION

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) established a statewide program to inventory air toxics emissions from individual facilities as well as requirements for risk assessment, public notification of potential health risks, and risk reduction. South Coast Air Quality Management District (SCAQMD) Rule 1402 – Control of Toxic Air Contaminants from Existing Sources (Rule 1402)[1] implements various aspects of the AB 2588 program and includes public notification and risk reduction requirements for facilities that are above set thresholds.

Rule 1402 includes a provision to allow facilities to participate in the Voluntary Risk Reduction Program. The Voluntary Risk Reduction Program was developed based on comments from some industry representatives that wanted the opportunity to voluntarily reduce their health risk beyond the Action Risk Level to below the Notification Risk Level in lieu of the standard process. The Voluntary Risk Reduction Program is an alternative to complying with the traditional AB 2588 program and Rule 1402 approach and provides qualifying facilities an opportunity to reduce health risks below the Notification Risk Level with a Modified Public Notification approach that does not require distribution of individual letters and public meetings. The Modified Public Notification will be placed on SCAQMD's website and in the AB 2588 Annual Report in lieu of traditional Public Notification, as described in SCAQMD's "Public Notification Procedures for Facilities Under the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) and Rule 1402").[2] Compliance with AB 2588 and Rule 1402 Public Notification requirements does not replace Proposition 65 and its Public Notification requirements or any other regulatory requirements. This Program will achieve risk reductions both sooner and beyond what is required in the traditional Rule 1402 process as it focuses on implementation of risk reduction measures immediately.

Under Rule 1402, facilities that meet the eligibility requirements and elect to participate in the Voluntary Risk Reduction Program must submit a Voluntary Risk Reduction Plan (VRRP). The VRRP identifies the risk reduction measures that a facility will implement to achieve risk reductions below the Voluntary Risk Threshold. The "Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program" specify the guidelines for preparing, approving, and demonstrating implementation of the VRRP:

1. The procedures an owner or operator must follow in preparing a VRRP pursuant to (h)(2) of Rule 1402;
2. The information that the Executive Officer will use when approving or rejecting the VRRP pursuant to (h)(3) of Rule 1402; and
3. The procedures an owner or operator must follow in preparing a Final Implementation Report for the VRRP pursuant to (j)(2) of Rule 1402.

2. PREPARING A VOLUNTARY RISK REDUCTION PLAN

The owner or operator is responsible for preparing a VRRP that identifies the risk reduction measures that shall be implemented in order to reduce the impact of the total facility emissions

[1] http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1402.pdf
[2] http://www.aqmd.gov/docs/default-source/planning/risk-assessment/pn_procedures.pdf

below the Voluntary Risk Threshold. Rule 1402 defines the Voluntary Risk Threshold as a Maximum Individual Cancer Risk (MICR) of ten in one million (10×10^{-6}), a total acute or chronic Hazard Index (HI) of one (1.0) for any target organ system at any receptor location, and the more stringent of either the National Ambient Air Quality Standard (NAAQS) for lead or applicable ambient lead concentration limit in a SCAQMD rule. Only those risk reduction measures that are needed to reduce facility risks below the Voluntary Risk Threshold need to be identified in the VRRP.

Emissions that are routine and predictable must be included, including testing of emergency Internal Combustion Engines (ICE). Emissions from actual emergency use is not considered routine and predictable and do not need to be included. Portable diesel ICEs that are used primarily on-site and for a single purpose or used in a fixed location for most of its life are considered "stationary" and should be included for AB 2588 program purposes.

The facility information and release, device, process, and emissions data must be provided in an Emissions Inventory Module[3] (EIM) database using the Universal Transverse Mercator (UTM) coordinate system with the World Geodetic System (WGS84) datum. While actual information is stored in an associated Microsoft Access database file, the EIM program should be used to verify the accuracy of the entries for two reasons: 1. much of the data is relational and data integrity is more easily verified using the EIM program; 2. data is entered directly into the tables and may not meet the minimum validation requirements when using the EIM program for entry. The minimum information required in the EIM file is shown in Appendix A.

The Voluntary Risk Reduction Plan shall include:

2.1 Facility Information

- Facility Name
- Base Reporting Year as identified by SCAQMD staff
- SCAQMD Facility Identification Number
- Standard Industrial Classification (SIC) and North American Industry Classification System (NAICS) Numbers
- Facility Origin (i.e., address and UTM 11 coordinates in WGS84 in kilometers)
- Facility Contact
    - Name
    - Title
    - Phone Number
    - Address
    - E-mail address
- Facility plot plan
    - Property boundaries (in relative meters to the Facility Origin)
    - Distance scale
    - Building locations and boundaries (in relative meters to the Facility Origin)
    - Building heights (in meters, for building downwash calculations)

[3] https://www.arb.ca.gov/toxics/harp/harp.htm

    - Source locations including elevations (in UTM 11 coordinates in WGS84 in kilometers)
- Surrounding land use map (e.g., the local city's zoning map)
    - 0.5 mile radius from property boundary
    - Distance scale
    - Identification of closest sensitive receptor (e.g., residence, school, etc.)
    - Identification of closest worker receptor
- Process flow diagram

2.2 Current Facility Risk Characterization

- Release Data: All sources and source names must be included. Refer to Release Information Entry screenshot in Appendix A for required information.
    - Point Sources:
        - Stack locations (in UTM 11 coordinates in WGS84 in kilometers)including elevations (ft)
        - Stack diameters (ft), gas exit velocities (ft/min), gas flow rates (ft^3/min), gas exit temperatures (F), and release heights (ft)
        - Stack release type (vertical, horizontal, or rain cap). If the rain cap option is used, please indicate this and include both actual and virtual stack parameters.
    - Fugitive Sources: Includes Volume, Area, and Open Pit sources
        - Source locations (in UTM 11 coordinates in WGS84 in kilometers)
        - Source dimensions and heights (ft)
        - Volume sources: Include initial lateral and vertical dimensions (ft)
        - Area source: initial vertical dimensions, square or rectangular dimensions (ft)
        - Open pits: volume of the open pit (ft^3)
        - Other types of fugitive sources: describe and provide applicable dimensions and data
        - Calculations for initial air dispersion factors (e.g., σ_y and $\sigma_{z)}$, if applicable
- Device Data: All devices and equipment subject to the AB 2588 program or SCAQMD Rule 1402 must be included by their application number. Refer to Device Information Entry screenshot in Appendix A for required information.
    - All permitted devices
    - Any existing devices operating under an open application
    - Any devices exempt from permitting must be listed by the SCAQMD Rule exempting them
    - Any devices with zero emissions must be included. The Process Rates for these devices may be set as zero to reflect zero emissions
    - Any other unpermitted operations, activities, equipment, or emissions that are still subject to the AB 2588 program or Rule 1402
    - Device IDs, Device Names, Permit IDs (if applicable), Number of Devices, Output Capacities, Size, Units Code, and Type Code
- Process Data: All processes producing emissions. Refer to Process Information Entry

screenshot in Appendix A for required information.

- Device IDs, Process IDs, Process Description, Release ID, SCC Number, SCC Units, Process Rate (SCC Units/Yr), Maximum Design Rate (SCC Units/hr), Maximum Hourly Process Rate (SCC Units/hr), Operating Hours Per Day, and Operating Days Per Week

- Emission Data: All Toxic Air Contaminants (TACs) in the Office of Environmental Health Hazard Assessment (OEHHA) Guidelines Appendix A-I must be included and quantified in the inventory report.[4] Refer to Emission Information Entry screenshot in Appendix A for required information. Facility total emission rate by substance and Process ID must include the following information:
  - Substance name and Chemical Abstract Service (CAS) Number
  - Annual average emission for each substance (lb/yr)
  - Maximum one-hour emissions for each substance (lb/hr)
  - Device ID, Process ID
  - Control Devices: Primary Control (CNTL1), Secondary Control, Control Efficiency (Percent)
  - Emission Factors: Uncontrolled EMS Factor, EMS Factor
- Receptors: Refer to Receptor Information Entry screenshot in Appendix A for required information.
  - Coarse grid used to define the zone of impact
  - Refined grid used to identify the point of maximum impact and maximum exposed individuals
  - All appropriate receptors (i.e. residential, commercial, or sensitive)
    - Closest sensitive receptor (e.g. residence, school, etc.)
    - Closest worker receptor
    - Nearest residential receptor based on prevailing wind
    - Nearest worker receptor based on prevailing wind

    Note for prevailing wind receptor: Using the wind rose from the representative SCAQMD meteorological station, identify the prevailing wind (dominant wind direction). Then identify the nearest receptor following the prevailing wind (dominant wind direction).

2.3 Proposed Facility Risk Characterization

- Release Data: List any changes from the Current Facility Risk Characterization such as new or removed sources and changed source parameters. If there are no changes, please state so.
- Device Data: List any changes from the Current Facility Risk Characterization such as device removals or additions along with Permit IDs. If there are no changes, please state so.
- Process Data: List any changes from the Current Facility Risk Characterization. If there are no changes, please state so.

[4] https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

- Emission Data: List any changes from the Current Facility Risk Characterization by TAC name and CAS Number. If there are no changes, please state so.

2.4 Supplementary Information

- A description of verifiable risk reduction measures and estimated emission reductions or efficiencies. Only those risk reduction measures that are needed to reduce facility risks below the Voluntary Risk Threshold need to be identified in the VRRP.
- A description of how the risk reduction measures will be enforced, such as through a new or modified SCAQMD permit or compliance plan. Proposed risk reduction measures, if approved, may become enforceable.
- A description of how the estimated emission reductions or efficiency will be demonstrated and maintained, such as through a source test, manufacturers' data, etc.
- Permit numbers associated with sources or processes to be reduced, if applicable.
- Schedule for implementing the specified risk reduction measures, including dates for increments of progress, submittal dates for application for permits, purchases of equipment, source tests, and commissioning of equipment.
- Anticipated increases or decreases in facility emissions, by TAC name and CAS Number, for each device and process with verifiable risk reduction measures.

2.5 Final Submittal

- EIM and associated files with Facility Information and Current Facility Risk Characterization data. The latest approved version of EIM can be downloaded from California Air Resources Board's (CARB) Hotspots Analysis and Reporting Program (HARP).[5]
- EIM and associated files with Facility Information and Proposed Facility Risk Characterization data.
- Any supplementary information in electronic format discussing facility information, VRRP proposals, EIM data, and any missing information that cannot be entered into the EIM.
- Supporting documentation for emission factors, such as source test reports and approval letters, CARB's or the United States Environmental Protection Agency's (U.S. EPA) reference publications, Safety Data Sheets (SDS), technical literature, etc. Source test results may be used only if they have been previously approved by SCAQMD. The source test must be representative of the current operating conditions of the equipment. Additional documentation may be required to demonstrate that the equipment or process has not changed since the time of the source test.
- Emission Factors Reference Sources Table.[6] This table should list the reference sources for each emission factor used. This can include reference sources such as AP-42, SDSs, source testing, or air quality monitoring data.
- Dispersion modeling input and output files (all AERMOD and BPIP files used in the VRRP including terrain data. All meteorological data files including any AERMET

[5] https://www.arb.ca.gov/toxics/harp/harp.htm
[6] Template available here: http://www.aqmd.gov/home/rules-compliance/compliance/toxic-hot-spots-ab-2588

files if default SCAQMD meteorological data is not used.)
- Air monitoring data, if applicable.

The Voluntary Risk Reduction Plan may also include optional information as additional proof that the risk reduction measures identified will reduce the impact of the total facility emissions below the Voluntary Risk Threshold. Optional information may include:
- Pre-approved meteorological file, if SCAQMD default meteorological file is not used; and
- United States Geological Survey Digital Elevation Model Data.

Table 1 lists the files which must be included in the VRRP submittal.

Table 1: Files that must be provided for Facility Risk Characterizations

File Type	Notes
Emission Inventory Input	All files in CARB's Emissions Inventory Module format.
Emission Inventory Output	
Emission Calculations and/or Dispersion Modeling (if applicable)	Provided in electronic format (e.g., Excel) and documented references (i.e. sample calculations).
Source Tests	Only SCAQMD-approved source tests can be used. SCAQMD approval must be included in submittal.
Air Monitoring Data	Any monitoring data used shall be provided.

3. APPROVAL OF THE VOLUNTARY RISK REDUCTION PLAN

Within 30 days of receipt, the Executive Officer or designee will conduct an initial review of the VRRP and confirm receipt. The Executive Officer or designee will approve or reject the Voluntary Risk Reduction Plan based on whether it meets the requirements outlined above, the information provided is complete and accurate, and the ability of the proposed Voluntary Risk Reduction Plan to verifiably reduce the impact of total facility risk below the Voluntary Risk Threshold as quickly as feasible, but by no later than two and half years from Voluntary Risk Reduction Plan approval. If the Voluntary Risk Reduction Plan is rejected, the facility has 30 days to correct all identified deficiencies and resubmit. If the revised plan is rejected, the facility has one more opportunity to fix the identified deficiencies. If the second revised plan is rejected, then the facility will not be allowed to participate in the Voluntary Risk Reduction program and the facility will be subject to the standard AB 2588 pathway. The denial will act as a notification to prepare an Air Toxics Inventory Report (ATIR) and Health Risk Assessment (HRA) within 90 days.

Emission reductions or control efficiencies must be verifiable to be considered as a risk reduction measure in a Voluntary Risk Reduction Plan. Verifiable emission reductions or control efficiencies are those which are permanent, can be sustained, and must be enforceable through permit conditions or compliance plans. Emission reductions or control efficiencies must be demonstrable through a source test, manufacturers' data, or other mechanism. Each risk reduction measure shall be implemented by the date specified in the approved Voluntary Risk Reduction

Plan. Rule 1402 includes provisions for modifying Voluntary Risk Reduction Plans and extending implementation dates, if needed. If no risk reduction measures are necessary to reduce the facility's health risks below the Voluntary Risk Threshold, the VRRP need not include risk reduction measures.

4. VOLUNTARY RISK THRESHOLD

The Voluntary Risk Threshold is based on the concept of the ATIR. SCAQMD staff will run facility VRRP information through the latest approved version of California Air Resources Board's Hotspots Analysis and Reporting Program (HARP) or equivalent and compare the result to the Voluntary Risk Threshold pursuant to Rule 1402 paragraph (c)(24).

5. VOLUNTARY RISK REDUCTION PLAN IMPLEMENTATION

Risk reduction measures identified in the Voluntary Risk Reduction Plan must be completed within the designated schedule and be verifiable and enforceable by permit condition or compliance plan. With Executive Officer approval, facilities may modify or request an extension to the Voluntary Risk Reduction Plan pursuant to (k)(2) and (l) of Rule 1402, respectively. Facilities failing to implement their Voluntary Risk Reduction Plan are in violation of Rule 1402 and subject to daily penalties. Facilities that cannot achieve compliance immediately may seek a variance from the SCAQMD Hearing Board, which may issue one depending on whether statutorily required findings can be made (refer to Rule 515 – Findings and Decision).

6. FINAL IMPLEMENTATION REPORT

The owner or operator shall submit a final implementation report pursuant to Rule 1402 paragraph (j)(2) one all measures listed in the Voluntary Risk Reduction Plan are fully implemented. The final implementation report demonstrates that the measures in the Voluntary Risk Reduction Plan have been completed, risk reduction measures have been verified, and therefore, the facility is below the Voluntary Risk Threshold. Approval of the final implementation report by the Executive Officer or designee acknowledges compliance with Rule 1402 requirements and that no further action is necessary.

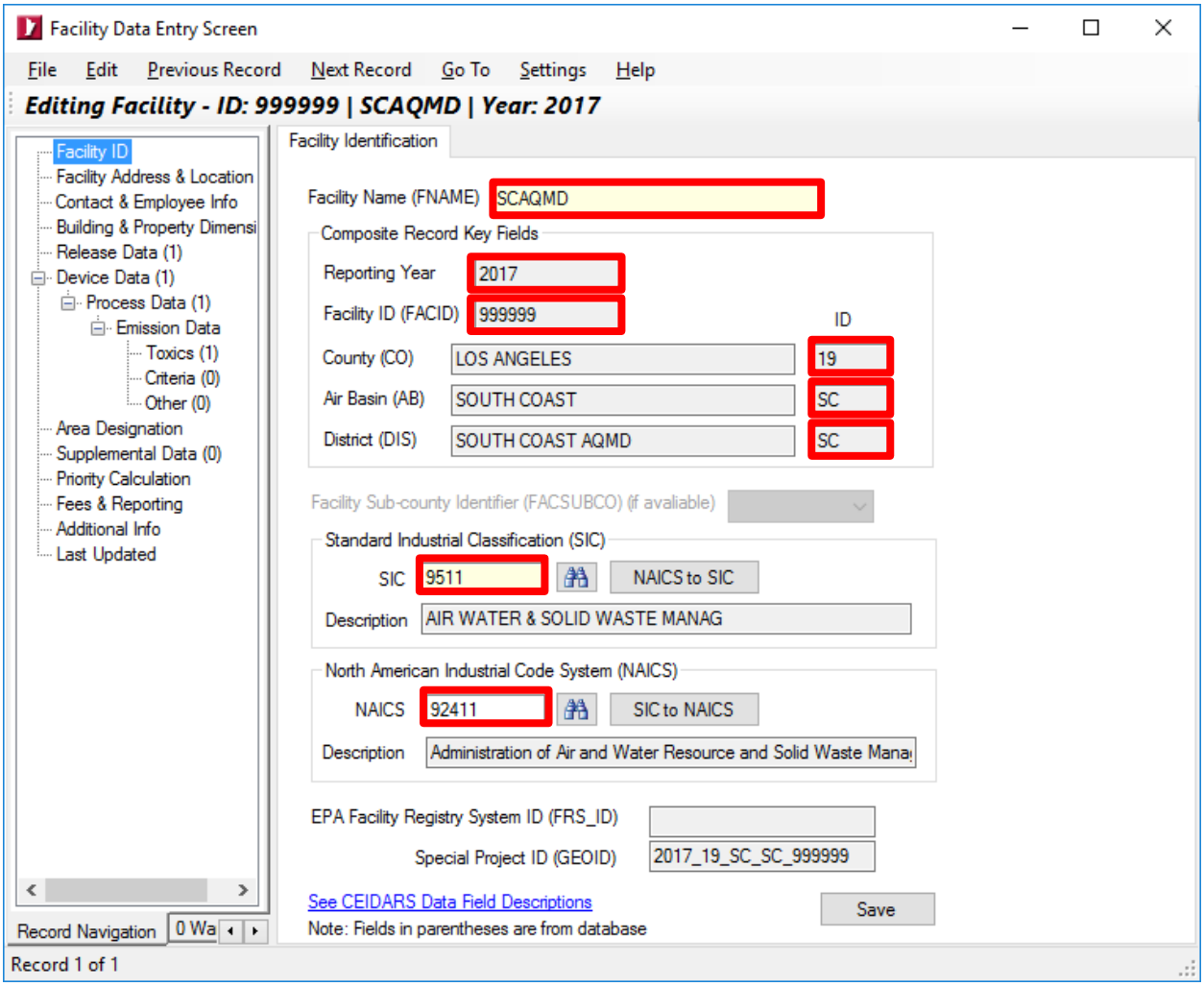
The final implementation report shall include, at a minimum, all of the following:

- The name, address, and SCAQMD facility identification number;
- The approved Voluntary Risk Reduction Plan; and
- Proof and verification the operator implemented the risk reduction measures in the approved Voluntary Risk Reduction Plan.

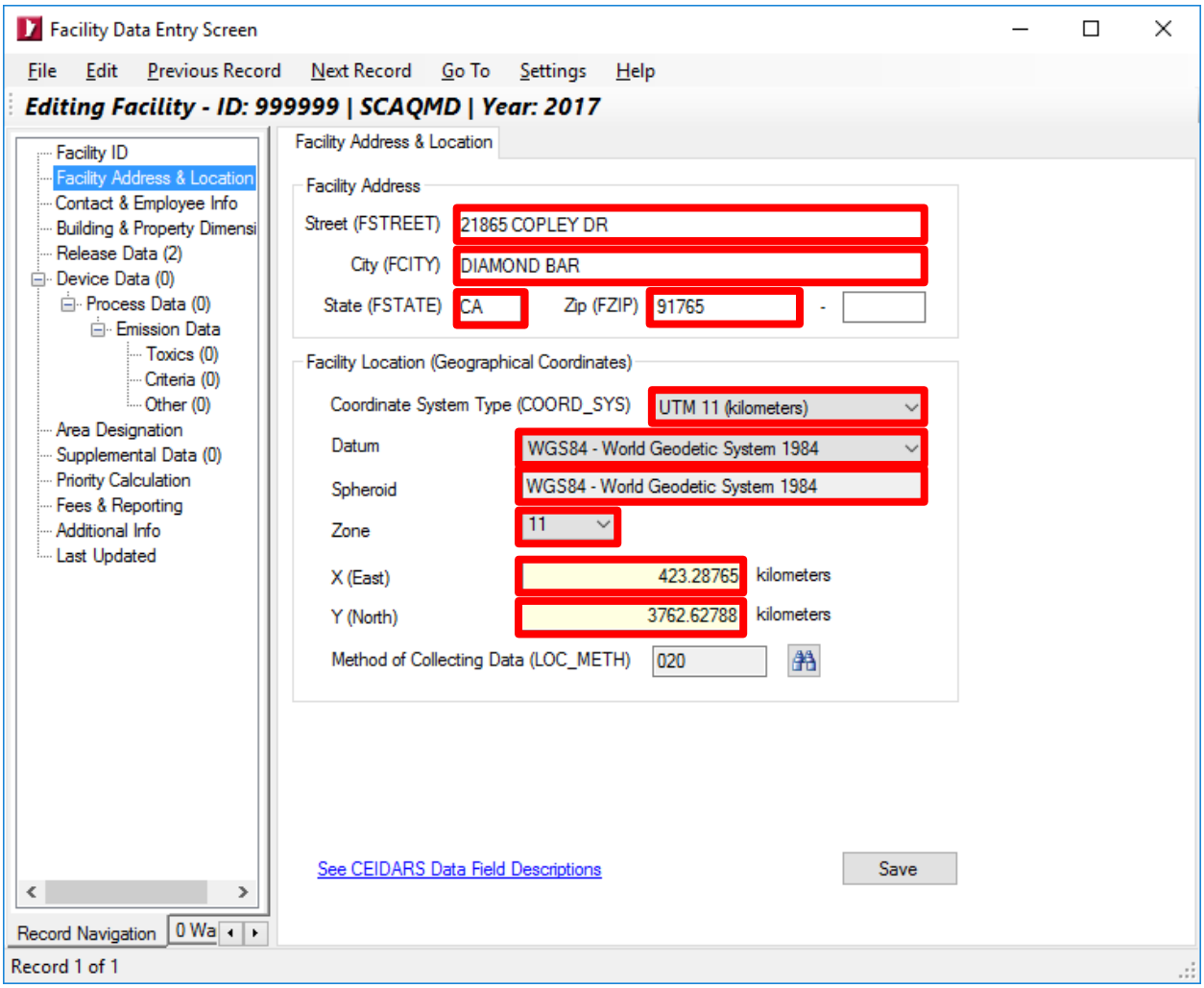
Proof would include enforceable permit conditions or compliance plans. Verification of emission reductions include, but are not limited to, specifications in the SCAQMD permit issued to the facility, a surrender of the existing SCAQMD permit(s), or reductions as required by SCAQMD rule(s). Letters of intent or internal memos mandating new company policy are not considered verifiable emission reductions. Verification of pollution control equipment which have been installed and are now in operation, includes but is not limited to, the source test protocol, final report, and all documents relating to the results.

APPENDIX A – Required Entries to EIM

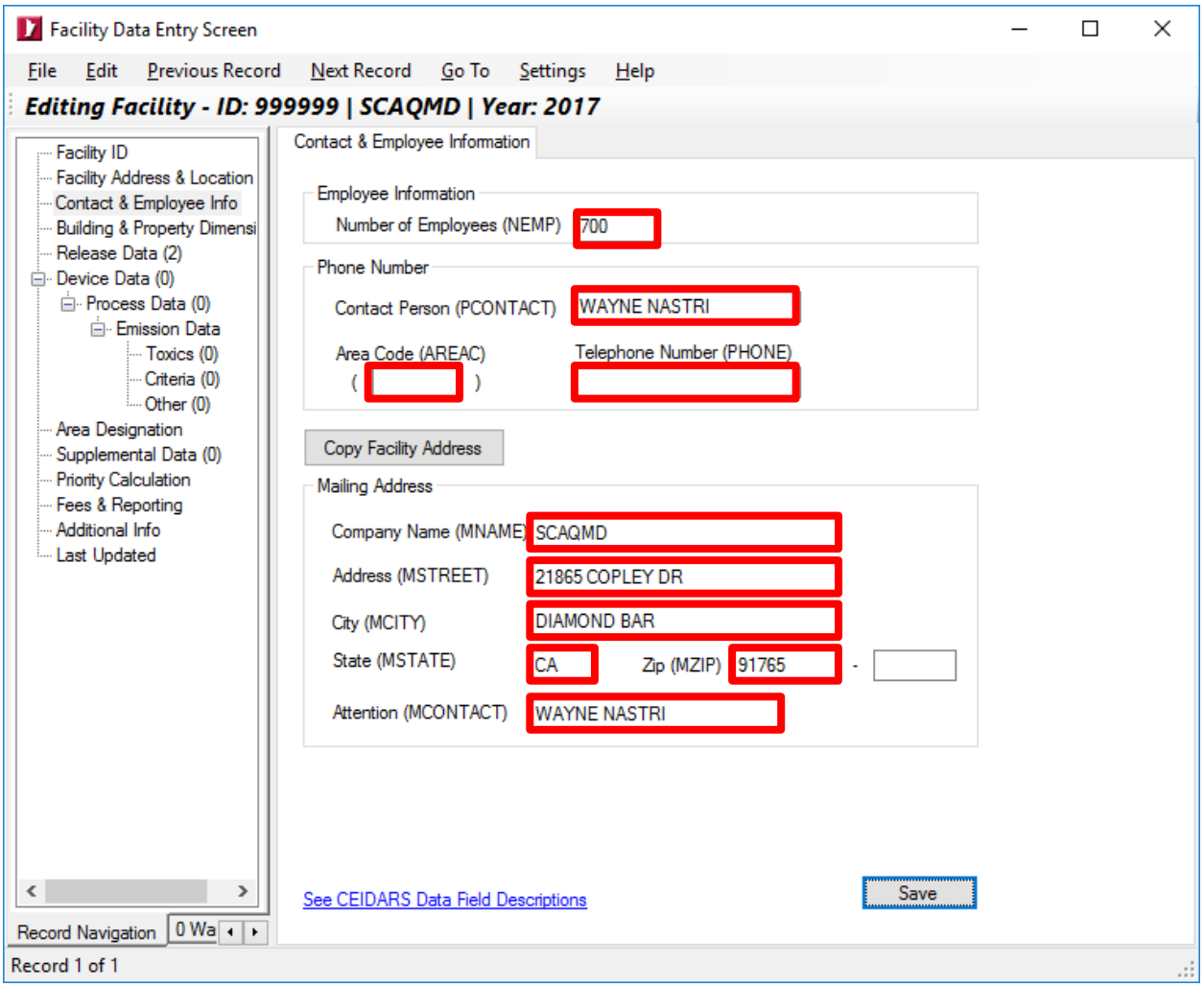
1. Facility Information Entry



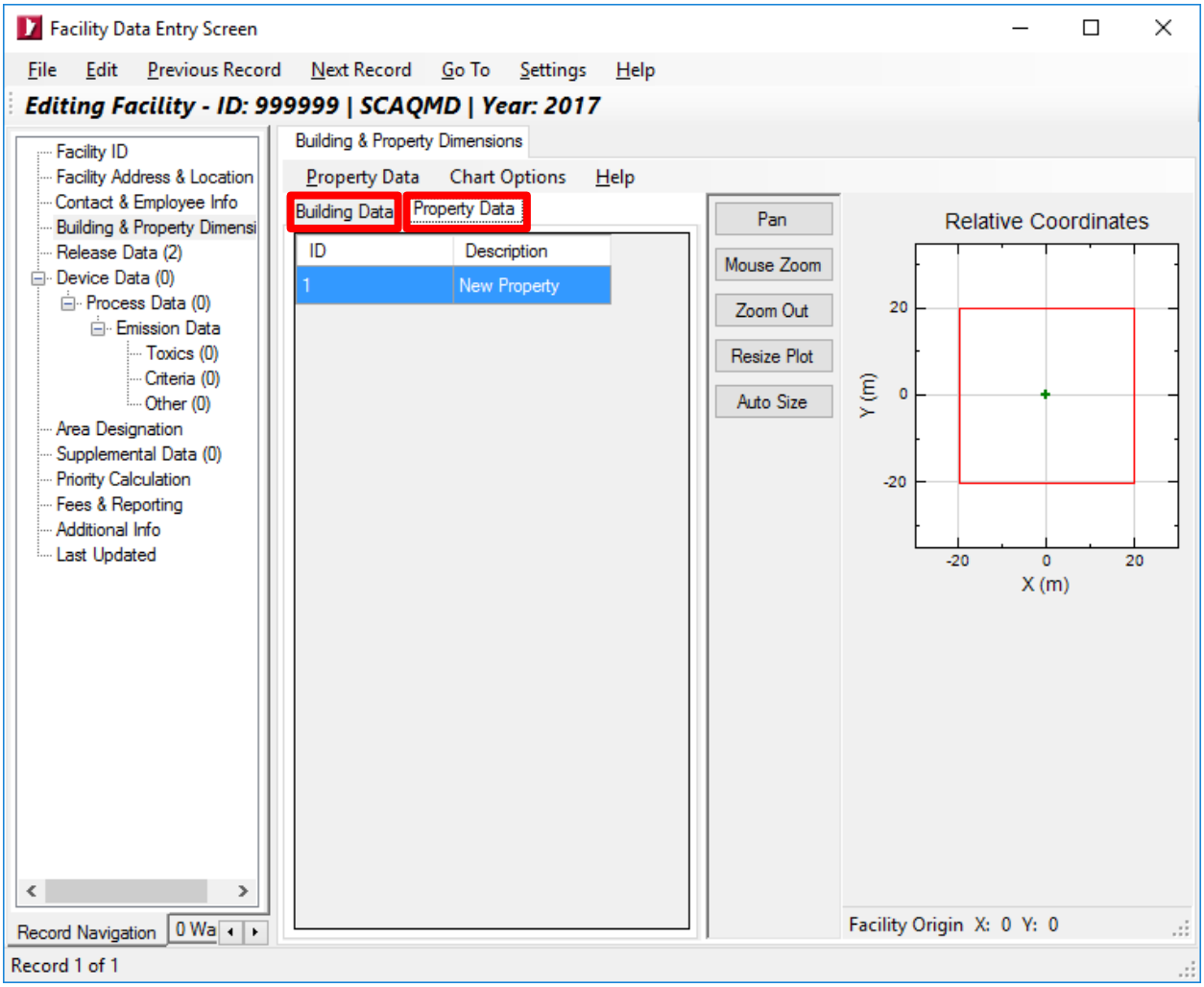
All fields shown with red outline on the EIM screenshot shown above must be completed with the exception of the last two fields (U.S. EPA Facility Registry System ID and Special Project ID). The data for the base Reporting Year must match the inventory year requested by SCAQMD for the facility.



All fields shown with red outline on the EIM screenshot shown above must be completed with the exception of the last field (method of collecting data). The coordinate system type, datum, spheroid and zone must match those shown above.

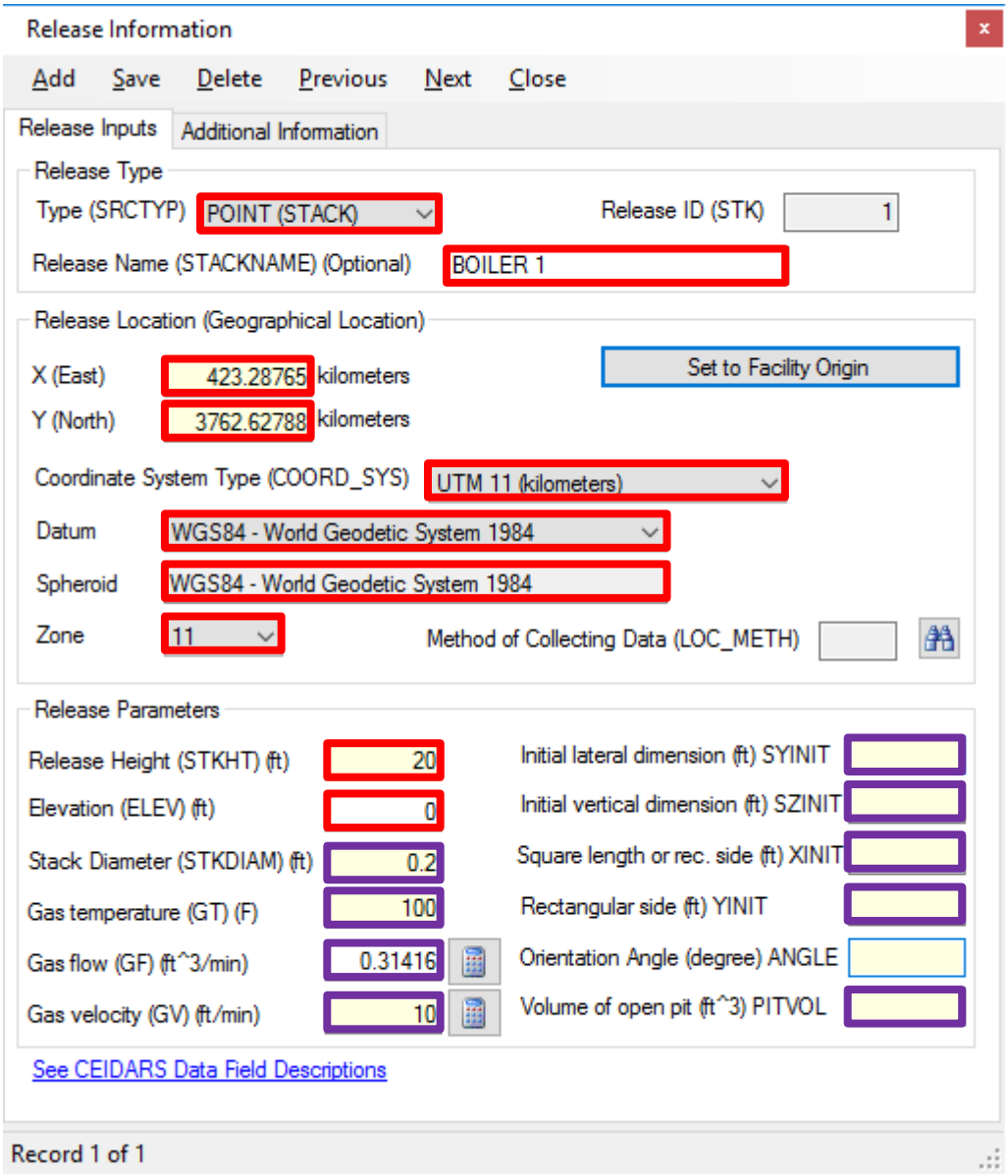


All fields shown with red outline on the EIM screenshot shown above must be completed.



The building locations and dimensions must be entered, along with the property locations and dimensions. The input should be verified against satellite imagery for correctness; this can be done by exporting the data as KML file and viewing in Google Earth.

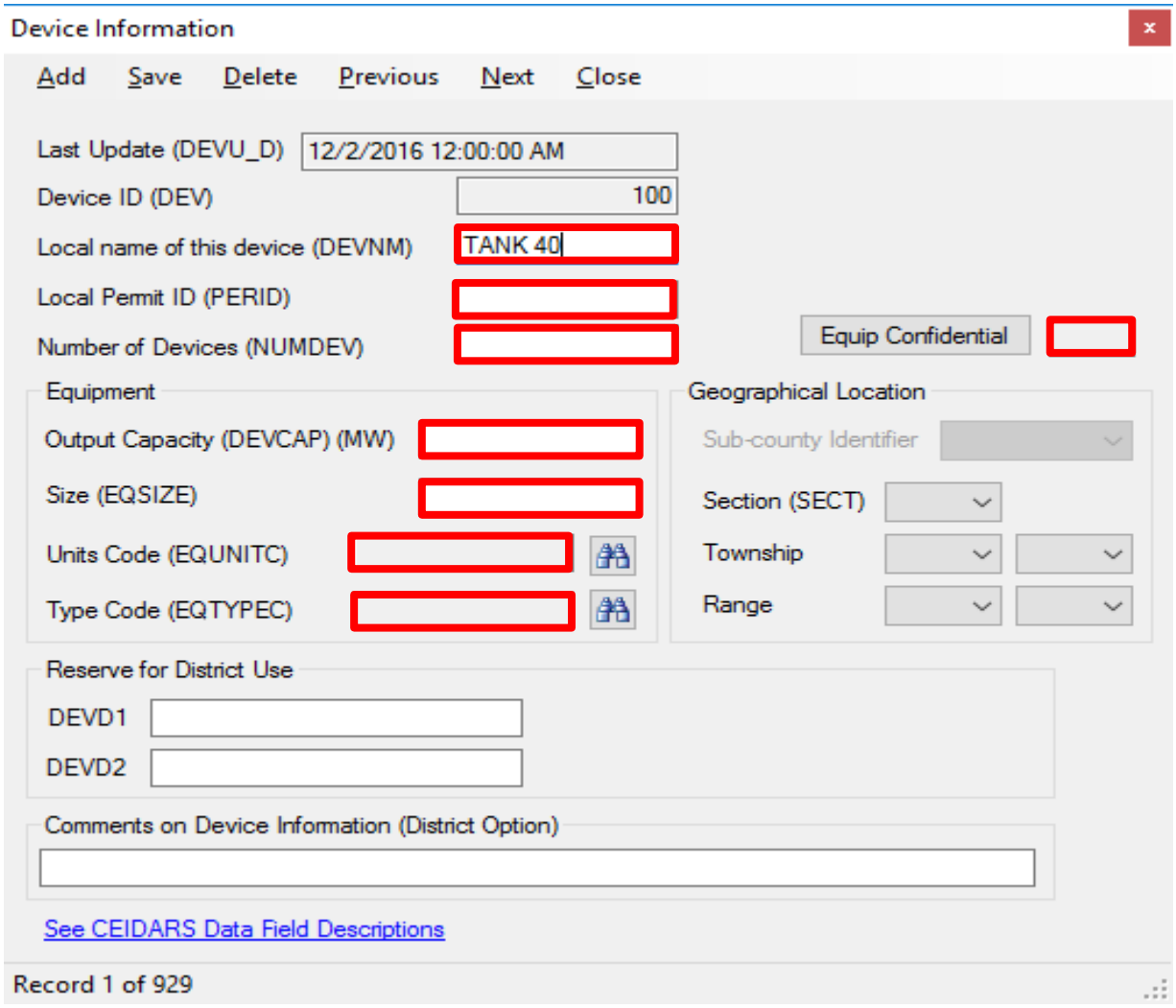
2. Release Information Entry



All fields shown with red outline on the EIM screenshot shown above must be completed**.**

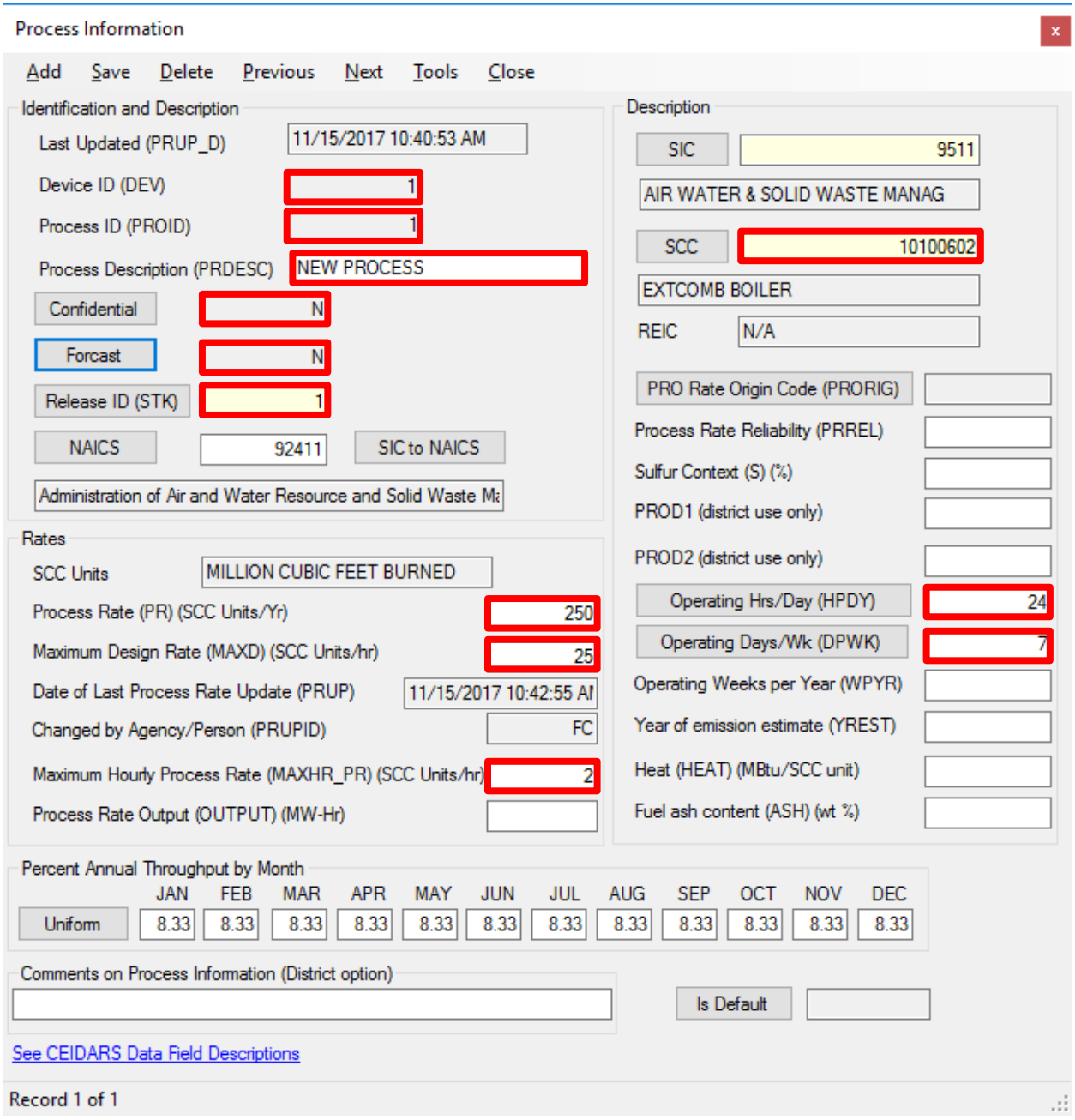
For **point sources**, additional mandatory information are: stack diameter, gas temperature, gas flow, and gas velocity must be completed.
For **volume sources**, additional mandatory information are: initial lateral and vertical dimensions.
For **area sources**, additional mandatory information are: initial vertical dimension, square or rectangular dimensions.
For **open pits**, additional information is the volume of the open pit.

3. Device Information Entry



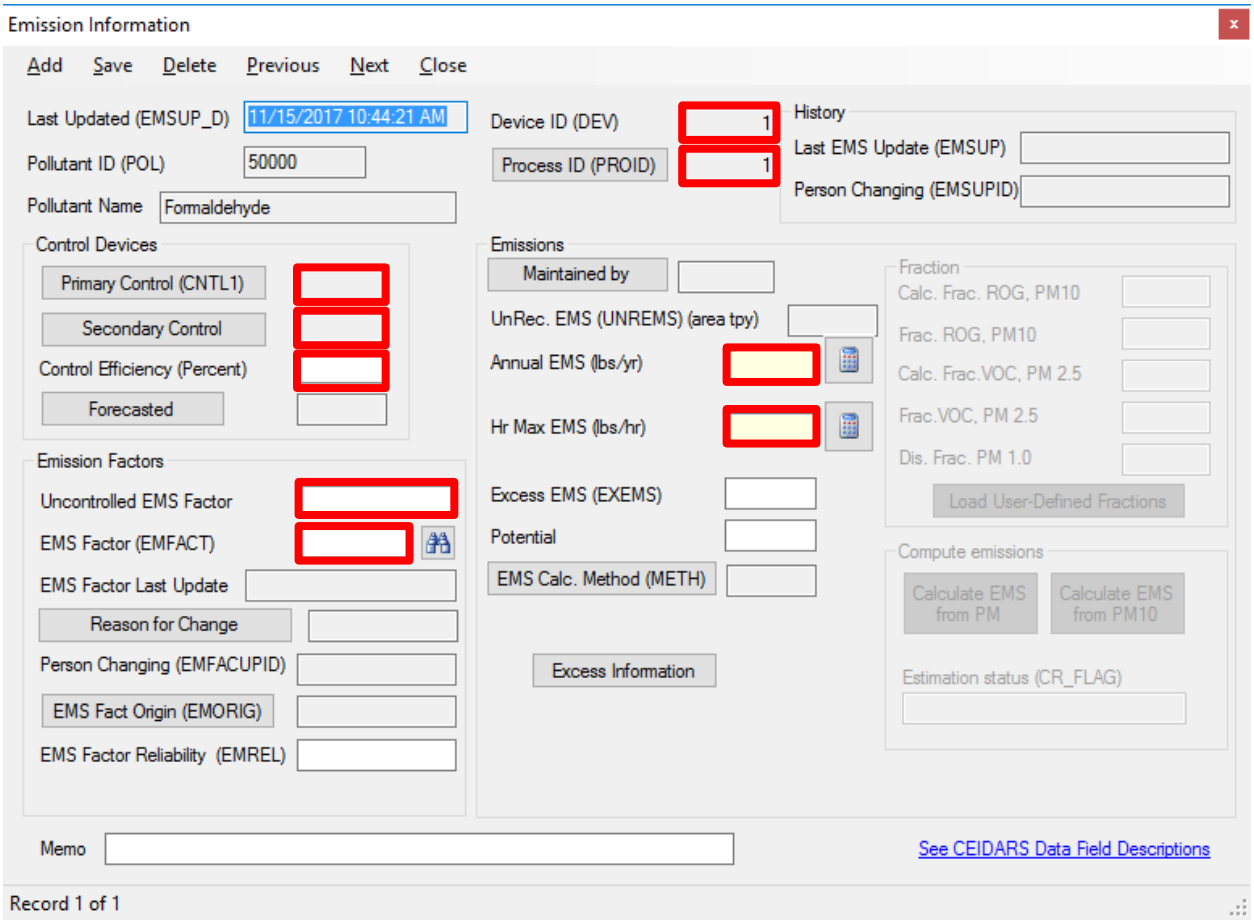
All fields shown with red outline on the EIM screenshot shown above must be completed.

4. Process Information Entry



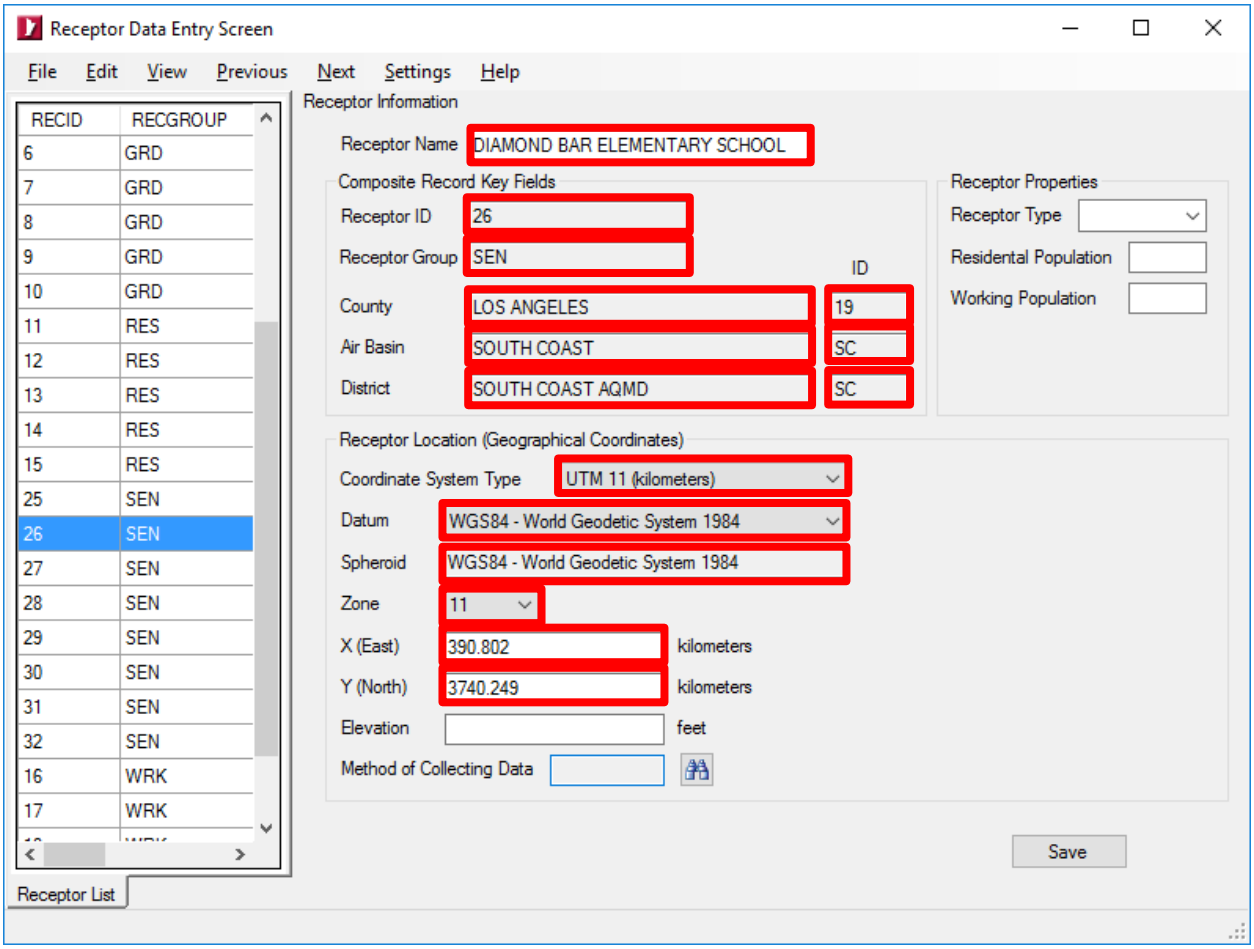
All fields shown with red outline on the EIM screenshot shown above must be completed.

5. Emission Information Entry



All fields shown with red outline on the EIM screenshot shown above must be completed.

6. Receptor Information Entry



All fields shown with red outline on the EIM screenshot shown above must be completed in order to provide the following information:

- The coarse grid used to define the zone of impact
- The refined grid used to identify the point of maximum impact and maximum exposed individuals
- Identify all appropriate receptors (i.e. residential, commercial, or sensitive)

Appendix B – ACRONYMS, ABBREVIATIONS AND REFERENCE OF TERMS

AB 2588	Air Toxics "Hot Spots" Information and Assessment Act of 1987
Action Risk Level	MICR of twenty-five in one million (25×10^{-6}), cancer burden of one half (0.5), a total acute or chronic HI of three (3.0) for any target organ system at any receptor location, or the National Ambient Air Quality Standard (NAAQS) for lead.
ATIR	Air Toxics Inventory Report
CAS Number	Chemical Abstract Service Number
HI	Hazard Index
HRA	Health Risk Assessment
MICR	Maximum Individual Cancer Risk
NAICS	North American Industry Classification System
Notification Risk Level	A maximum individual cancer risk of ten in one million (10×10^{-6}), a total acute or chronic HI of one (1.0) for any target organ system at any receptor location, or the more stringent of either the NAAQS for lead or applicable ambient lead concentration limit in a SCAQMD rule.
OEHHA	California Office of Environmental Health Hazard Assessment
RRP	Risk Reduction Plan
Rule 1402	SCAQMD Rule 1402 – Control of Toxic Air Contaminants from Existing Sources
SCAQMD	South Coast Air Quality Management District
SCC	Source Classification Code
SDS	Safety Data Sheet
SIC	Standard Industrial Classification
Significant Risk Level	A maximum individual cancer risk of one hundred in one million (100×10^{-6}) or a total acute or chronic HI of five (5.0) for any target organ system at any receptor location.
TAC	Toxic Air Contaminant

UTM	Universal Transverse Mercator
Voluntary Risk Threshold	A maximum individual cancer risk of ten in one million (10×10^{-6}), a total acute or chronic HI of one (1.0) for any target organ system at any receptor location, or the more stringent of either the NAAQS for lead or applicable ambient lead concentration limit in a SCAQMD rule.

ATTACHMENT 5

AB 2588 Toxic Hot Spots
2017 Annual Report
And
Updates to Guidance Documents

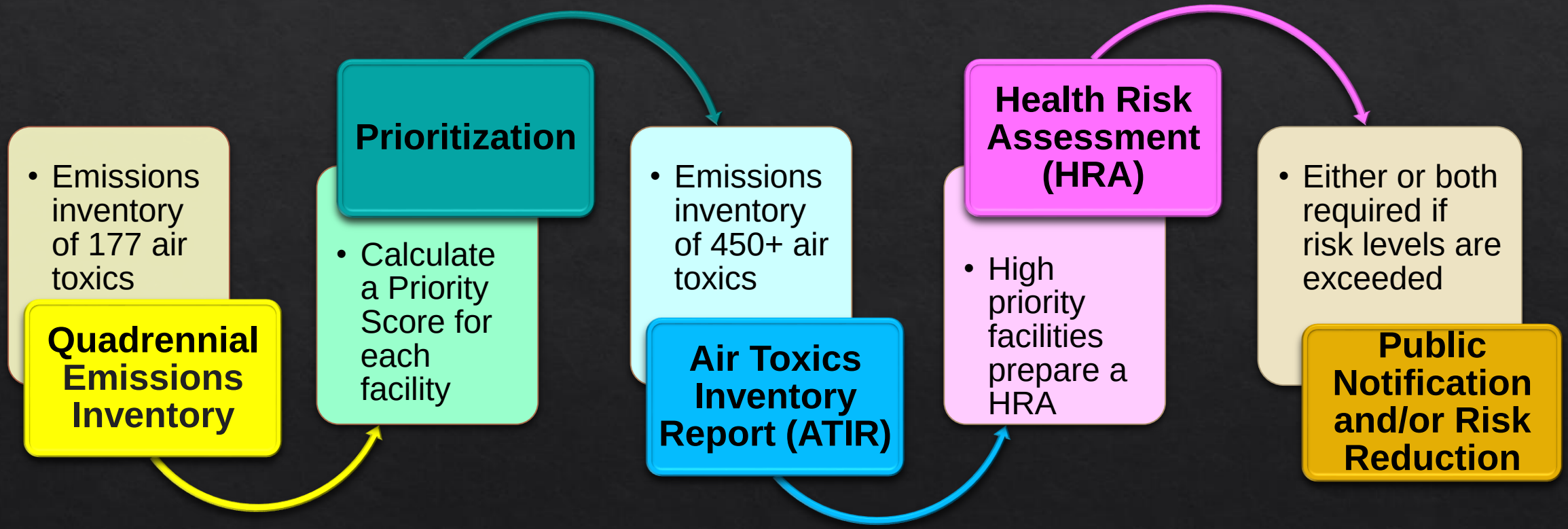
Governing Board Meeting
September 7, 2018

South Coast AQMD

Introduction

- AB 2588 Program Annual Report summarizes
  - Activities implemented under AB 2588 “Hot Spots Act” consistent with state law
  - Summarizes SCAQMD activities to reduce toxic air contaminants
  - Satisfies H&S Code §44363 requirement of a public hearing to present results of Annual Report
- Staff is also proposing updates to the following guidance documents:
  - Facility Prioritization Procedure for the AB 2588 Program
  - AB 2588 and Rule 1402 Supplemental Guidelines
  - Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program

AB 2588 Traditional Process for ‘Core’ Facilities



Pathways for Facilities in Rule 1402

Traditional Approach

Cancer risks <100 per million

- Air Toxics Inventory Report
- Health Risk Assessment
- Risk Reduction Plan (if cancer risks >25 per million)

Voluntary Risk Reduction Program

Cancer risks <25 per million based on previously approved HRA

- Air Toxics Inventory Report
- Voluntary Risk Reduction Plan committing to reduce cancer risks below 10 per million

Potentially High Risk Level

Cancer risks >100 per million

- Early Action Reduction Plan
- Air Toxics Inventory Report
- Health Risk Assessment
- Risk Reduction Plan

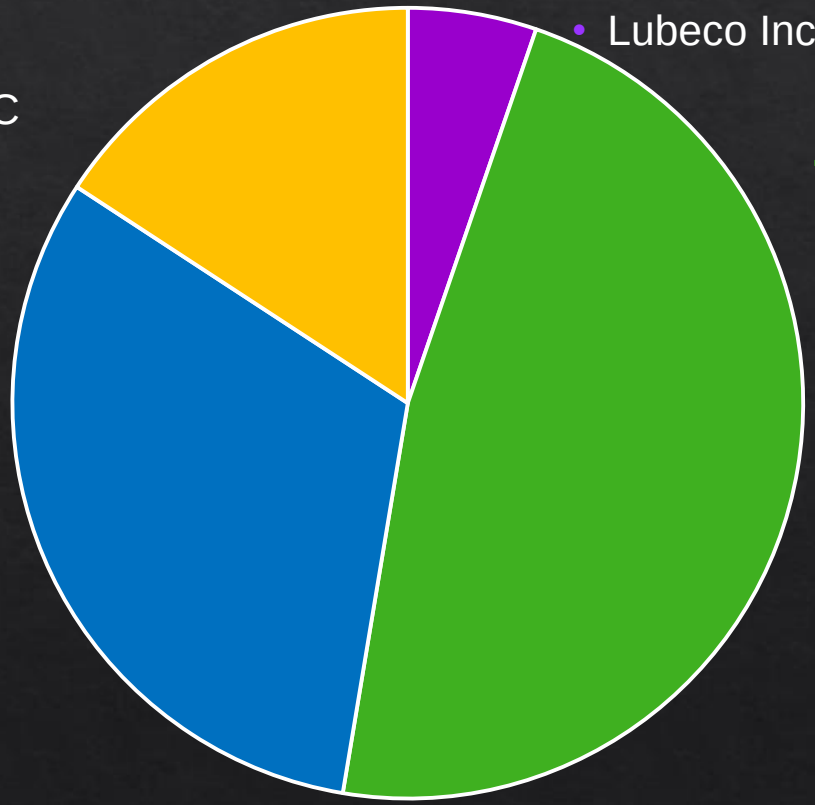
Summary of Rule 1402 Facility Actions in 2017

Revised Priority Score <10

- Anadite Inc.
- LA City, Bureau of Streets
- Universal City Studios, LLC
- UC Irvine

Potentially High Risk Level

- Lubeco Inc.



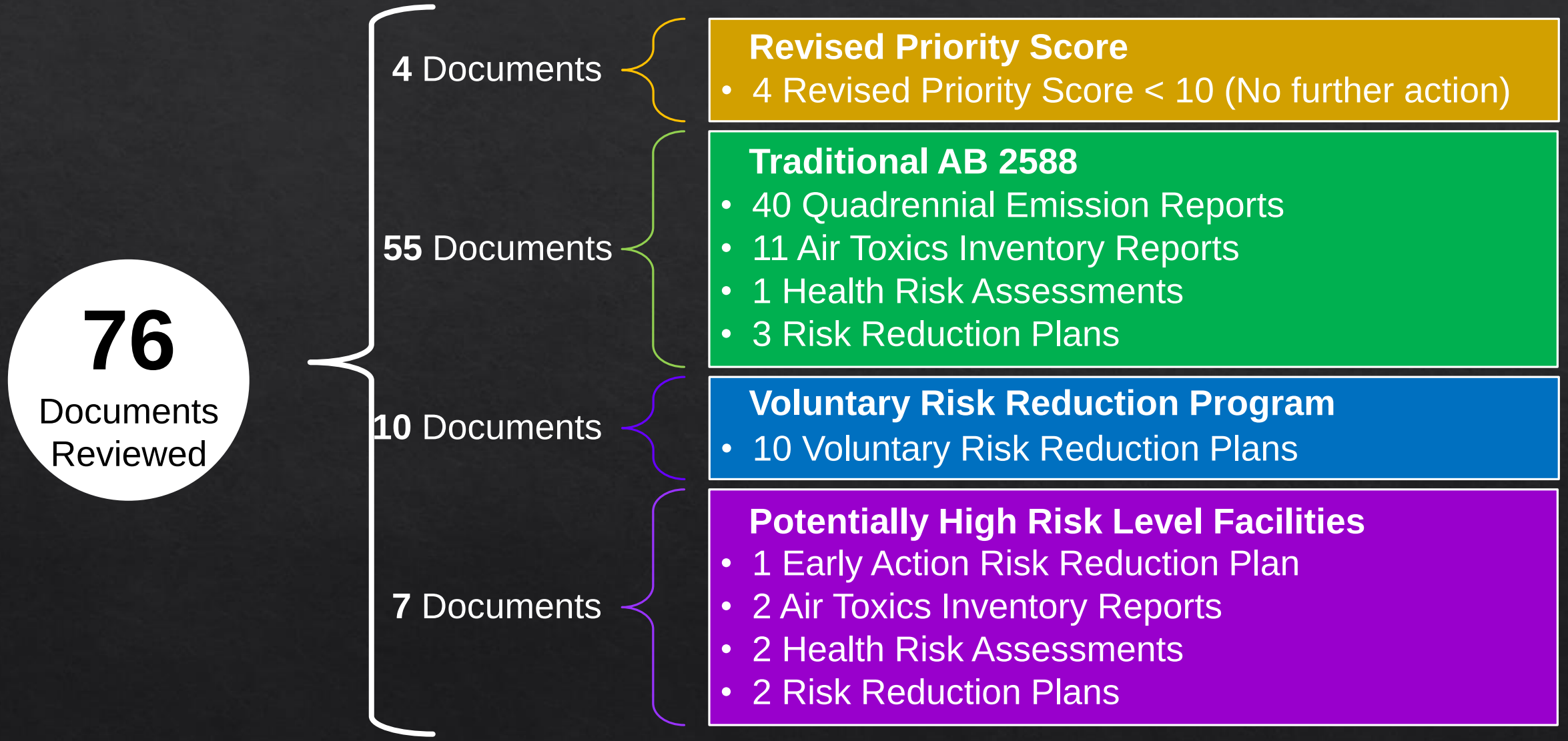
Voluntary Risk Reduction Program

- OCSD, Fountain Valley
- OCSD, Huntington Beach
- Phillips 66, Carson Refinery
- Tesoro Calciner
- Torrance Refining Company
- Ultramar Valero Refinery

Traditional AB 2588 Program

- Boral Roofing, LLC
- Equilon Enterprises, LLC, Shell
- Glendale City Water & Power
- Matrix Oil Corp
- MM West Covina, LLC
- Philips 66, Wilmington Refinery
- So Cal Gas, Playa del Rey Storage Facility
- So Cal Holding, LLC
- Triumph Processing, Inc.

Documents Reviewed In 2017



Total No. of Documents Reviewed in 2017 = 76*

* *Some facilities could have multiple documents*

Other Key Activities in 2017

Rulemaking

Adopted Rules (1430 and 1466)

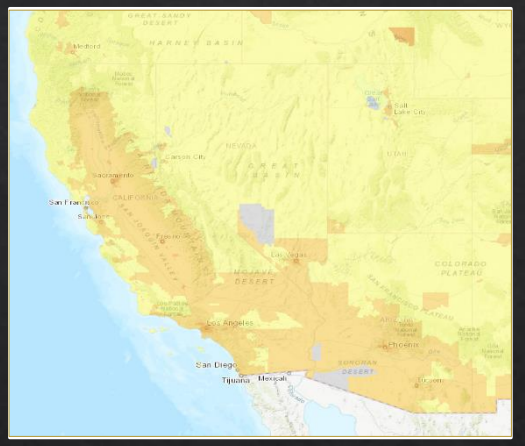
Amended 3 Rules (1401, 1420, and 1466)

Special Monitoring

Continued air monitoring in Paramount

Began air monitoring in Compton

Other



Completed review of the 2014 National Air Toxics Assessment emissions data from U.S. EPA

Updates to Guidance Documents

- **Facility Prioritization Procedure for the AB 2588 Program** – Incorporates the most recent meteorological data & adjusts the calculation of non-cancer acute score
- **AB 2588 and Rule 1402 Supplemental Guidelines** – Provides more clarity for implementation of the AB 2588 Program and Rule 1402, ensures consistency with guidance in other AB 2588 documents
- **Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program** – Provides more clarity on requirements for participation

Public Process

- **June 15, 2018** – AB 2588 Annual Report and Guidance Document updates presented to Stationary Source Committee
- **July 3, 2018** – AB 2588 Annual Report and Updated Guidance Documents made available to public
- **July 31, 2018** – Public Consultation Meeting

Staff Recommendations

- Receive and file
  - 2017 Annual Report on the AB 2588 Program
- Approve updates to the following guidance documents:
  - Facility Prioritization Procedure for the AB 2588 Program
  - AB 2588 and Rule 1401 Supplemental Guidelines
  - Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program