



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 1, 2017

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 SCAQMD 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

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 7, 2017 Board Meeting **Garzaro/2500**

2. Set Public Hearing October 6, 2017 to Consider Adoption of
and/or Amendments to SCAQMD Rules and Regulations **Nastri/3131**

Certify Final Environmental Assessment and Amend **Fine/2239**
Rule 1168 – Adhesive and Sealant Applications

The proposed amendments will implement, in part, the 2016 Air Quality Management Plan Control Measure CTS-01-Further Emission Reductions from Coatings, Solvents, Adhesives, and Sealants, which targets a 1 ton per day VOC emission reduction by 2023. The amendments include: revision of VOC content limits for various categories; reporting and labeling requirements; clarification of rule language and applicability; language that distinguishes when products are regulated by the California Air Resources Board Consumer Products Regulation or Rule 1168; harmonization of language and requirements with regulations (state and national) affecting the same products; removal or restriction of certain exemptions; and prohibition of Group II exempt compounds as defined in Rule 102. This action is to adopt the Resolution: 1) Certifying the Final Environmental Assessment for Proposed Amended Rule 1168 – Adhesive and Sealant Applications; and 2) Amending Rule 1168 – Adhesive and Sealant Applications. (Review: Stationary Source Committee, September 15, 2017)

Budget/Fiscal Impact

3. **Execute Contract to Cosponsor Versatile Plug-In Auxiliary Power Systems Demonstration** **Miyasato/3249**

In December 2015, the Board awarded a contract to the Electric Power Research Institute, Inc., (EPRI) to cosponsor development and demonstration of a Versatile Plug-In Auxiliary (VAP) System. EPRI is now requesting to use the previously approved cost-share for the second phase of the VAP System demonstration to evaluate the benefits and impacts of electric auxiliary power on emissions and fuel usage in various on-board and stationary applications. Up to three units will undergo baseline tests at Southern California Edison's EV Technical Center prior to field demonstration within SCAQMD. This action is to execute a contract with EPRI to demonstrate up to three VAP systems in various applications in an amount not to exceed \$125,000 from the Clean Fuels Program Fund (31). (Reviewed: Technology Committee, July 21, 2017; Recommended for Approval)

4. **Execute Contract to Demonstrate Low NOx Combustion Technology on Refinery Boiler** **Miyasato/3249**

The 2016 AQMP identifies development and implementation of new technologies to further reduce NOx emissions from stationary combustion sources as a key strategy. It is also equally important to assess new technologies to prevent or mitigate any negative impact on air quality and public health. ClearSign Combustion Corporation recently submitted an unsolicited proposal that addresses these needs using a low NOx, non-Selective Catalytic Reduction combustion technology. Staff recommends cost-sharing the proposed project to demonstrate retrofitting their Duplex low NOx combustion technology without the use of reagents, such as ammonia or urea, on a refinery boiler. This action is to execute a contract with ClearSign to cost-share this project in an amount not to exceed \$320,000 from the Rule 1118 Mitigation Fund (54). (Reviewed: Technology Committee, July 21, 2017; Recommended for Approval)

5. **Approve Additional Funds for Replacement of Onboard CNG Fuel Tanks on School Buses and Authorize Execution of Grant Agreements** **Minassian/2641**

Since 2001, the SCAQMD has replaced over 1,600 pre-1994 diesel school buses primarily with CNG school buses. In April 2012, the Board issued a Program Announcement using \$3 million from the Carl Moyer Program AB 923 Fund (80) to replace onboard CNG fuel tanks on a first-come, first-served basis for public school buses at least 14 years old. In November 2016, the Board approved an additional \$2 million to continue the Program, and these funds are now exhausted. This action is to approve an additional \$3 million from the Carl Moyer Program AB 923 Fund (80) to continue on a first-come, first-served basis the replacement of onboard CNG fuel tanks for public school buses. (Reviewed: Technology Committee, July 21, 2017; Recommended for Approval)

6. **Amend Contracts to Continue Implementation of Enhanced Fleet Modernization Program and Transfer Funds** **Minassian/2641**

In February 2017, the Board recognized an additional \$5 million from CARB to continue implementation of the Enhanced Fleet Modernization Program (EFMP). The Board also approved contracts with consulting firms to provide assistance with implementation of the EFMP including case management, outreach and vehicle emissions testing. The Program has been highly successful. Consequently, this action is to amend contracts with consulting firms in an amount not to exceed \$500,000 from the HEROS II Special Revenue Fund (56) to continue program implementation, including the addition of a new outreach strategy involving vehicle emissions monitoring in disadvantaged communities to identify high-emitting vehicles for potential voluntary replacement with cleaner, more fuel-efficient vehicles. These actions are to also transfer up to \$850,000 (comprising the above amendments and a prior \$350,000 amendment for Opus Inspection approved in February 2017) as a temporary loan from the Clean Fuels Program Fund (31) into the HEROS II Special Revenue Fund (56), until receipt of the CARB revenue. (Reviewed: Technology Committee, July 21, 2017; Recommended for Approval)

7. **Issue RFP for Legislative Representation in Sacramento, California** **Alatorre/3122**

The current contracts for legislative representation in Sacramento, California expire on December 31, 2017. This action is to issue an RFP for legislative consulting services for SCAQMD in Sacramento for 2018. The RFP will also indicate that the services contract(s) may be extended for up to two additional one-year terms. Total expenditures for the contract(s) shall not exceed \$350,000 for the initial one-year period. (Reviewed: Administrative Committee, July 14, 2017; Recommended for Approval)

8. **Execute Contract for Insurance Brokerage Services** **O'Kelly/2828**

The current contract for insurance brokerage services expires September 30, 2017. On May 5, 2017, the Board approved release of an RFP to solicit proposals from firms interested in providing these services for the next three-year period. This action is to execute a contract with Alliant Insurance Services, Inc. from October 1, 2017 through September 30, 2020 for an amount not to exceed \$149,960 for the three-year period. Funding for the first year of this contract has been included in the FY 2017-18 Budget, and will be requested in successive fiscal years for subsequent annual payments. (Reviewed: Administrative Committee, July 14, 2017; Recommended for Approval)

9. **Approve Position Reclassifications in Information Management and Compliance & Enforcement** **O'Kelly/2828**

The Technical & Enforcement and Office, Clerical and Maintenance MOU provides for employee-initiated classification studies, as well as determinations by management to reclassify employees. An outside consultant, Koff & Associates, has completed evaluations of requests for classification studies, for positions in Information Management and Compliance & Enforcement. Based on the analysis of the studies, and in consultation with union representatives for the bargaining units, staff recommends Board approval for the following reclassifications: positions in the Computer Operator and Telecommunications series in Information Management, and one Office Assistant in Compliance & Enforcement. This action will result in an annual cost increase of approximately \$155,292. Sufficient funding for this annual cost increase exists in the FY 2017-18 Budget. This action is also to amend the Salary Resolution for a Director of Communications position, which was previously approved by the Board. (Reviewed: Administrative Committee, July 14, 2017; Recommended for Approval)

10. **Close and Transfer Residual Balances from Five Special Revenue Funds and One Enterprise Fund** **O'Kelly/2828**

SCAQMD maintains multiple funds as a means of accounting for revenues that have restricted or designated purposes. As discussed during the FY 2017-18 General Fund Budget Hearing process, staff is performing a review of all funds to determine the appropriate disposition of monies. This action is to recommend the close and transfer of five special revenue funds and one enterprise fund as part of the first step of the review process. (Reviewed: Administrative Committee, July 14, 2017; Recommended for Approval)

11. **Approve Contract Awards and Modification and Issue Solicitation Approved by MSRC** **Pettis**

The MSRC previously released an RFP to solicit technical advisor services. The MSRC unanimously awarded the contract to Raymond Gorski as part of their FYs 2016-18, 2018-19, and 2019-20 AB 2766 Discretionary Fund Work Programs. Additionally, as part of their FYs 2016-18 Work Program, the MSRC approved new contracts under the Major Event Center Transportation and Natural Gas Infrastructure Programs. The MSRC also approved a modification to a contract under the Near-Zero Engine Incentive Program as part of their FYs 2014-16 Work Program, and the release of an Invitation to Negotiate for a Local Government Partnership Program as part of their FYs 2016-18 Work Program. At this time the MSRC seeks Board approval of the contract awards and modification and to release the solicitation. (Reviewed: Mobile Source Air Pollution Reduction Review Committee, August 17, 2017; 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 2017 outreach activities of the Legislative, Public Affairs and Media Office, which include: Environmental Justice Update, Community Events/Public Meetings, Business Assistance, Media Relations, and Outreach to Business, Federal, State, and Local Government. (No Committee Review)
13. Report to Legislature and CARB on SCAQMD's Regulatory Activities for Calendar Year 2016 **Alatorre/3122**
- The SCAQMD is required by law to submit a report to the Legislature and CARB on its regulatory activities for the preceding calendar year. The report is to include a summary of each rule and rule amendment adopted by SCAQMD, number of permits issued, denied, or cancelled, emission offset transactions, budget and forecast, and an update on the Clean Fuels program. Also included is the Annual RECLAIM Audit Report, as required by RECLAIM Rule 2015 - Backstop Provisions. (No Committee Review)
14. Hearing Board Report **Prussack/2500**
- This reports the actions taken by the Hearing Board during the period of June 1 through July 31, 2017. (No Committee Review)
15. Civil Filings and Civil Penalties Report **Wiese/3460**
- This reports the monthly penalties from June 1 through June 30, 2017, and legal action filed by the General Counsel's Office from June 1 through June 30, 2017. An Index of District Rules is attached with the penalty report. (Reviewed: Stationary Source Committee, July 21, 2017)
16. 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, 2017 to July 31, 2017, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA. (Reviewed: Mobile Source Committee, July 21, 2017, for the June 1 to June 30, 2017 portion of the report; the July 1 to July 31, 2017 portion had no committee review)
17. Rule and Control Measure Forecast **Fine/2239**
- This report highlights SCAQMD rulemaking activities and public workshops potentially scheduled for the year 2017. (No Committee Review)

18. Status Report on Major Ongoing and Upcoming Projects for Information Management **O'Kelly/2828**

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 14, 2017)

19. FY 2016-17 Contract Activity **O'Kelly/2828**

This report lists the number of contracts let during FY 2016-17, the respective dollar amounts, award type, and the authorized contract signatory for SCAQMD. This report includes the data provided in the March 2017 Report covering contract activity for the first six months of FY 2016-17. (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
AB 246 (Santiago) Hazardous waste: facilities: permits: fence-line monitoring systems	Work with Author
AB 1036 (McCarty) Organic Waste: composting	Oppose
SB 615 (Hueso) Salton Sea restoration	Support with Amendments
SB 701 (Hueso) Salton Sea Obligations Act of 2018	No Recommendation

23. Mobile Source Committee (Receive & File) **Chair: Parker Fine/2239**

24. Stationary Source Committee (Receive & File) **Chair: Benoit Tisopoulos/3123**

25. Technology Committee (Receive & File) **Chair: Buscaino Miyasato/3249**

26. Mobile Source Air Pollution Reduction Review Committee (Receive & File) Board Liaison: Benoit Minassian/2641

27. California Air Resources Board Monthly Report (Receive & File) Board Rep: Mitchell Garzaro/2500

Staff Presentation/Board Discussion

28. Status Report on Regulation XIII – New Source Review Tisopoulos/3123

This report presents the federal Final Determination of Equivalency for January 2015 through December 2015. 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 2015 through December 2015. (Reviewed: Stationary Source Committee, July 21, 2017)

PUBLIC HEARING

29. Determine that Proposed Amendments to Rule 1401 Are Exempt from CEQA and Amend Rule 1401– New Source Review of Toxic Air Contaminants Nakamura/3105

In June 2015, Rule 1401 – New Source Review of Toxic Air Contaminants, was amended to incorporate the 2015 Revised OEHHA Health Risk Assessment Guidelines (2015 OEHHA Guidelines). The amendments allowed spray booths and retail gasoline dispensing facilities to use 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 Guidelines is expected to have minimal impacts to new or modified spray booths or gasoline dispensing facilities. Staff recommends that these two source categories begin using the SCAQMD’s Risk Assessment Procedures (Version 8.1) which incorporate the 2015 OEHHA Guidelines for spray booths and gasoline dispensing facilities, revised emission factors and speciation profiles for gasoline dispensing facilities, and updated meteorological data. The proposed changes will also update the list of toxic air contaminants. This action is to adopt the Resolution to: 1) Determine that the proposed amendments to Rule 1401 - New Source Review of Toxic Air Contaminants are exempt from the requirements of the California Environmental Quality Act; 2) Amend Rule 1401 - New Source Review of Toxic Air Contaminants; and 3) Receive and file the SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1 and 212 (Version 8.1). (Reviewed: Stationary Source Committee, July 21, 2017)

OTHER BUSINESS

30. Amend Governing Board Meeting Procedures

Wiese/3460

This action is to amend the Governing Board Meeting Procedures, primarily to add provisions to address public decorum and meeting disruptions. In addition, the amendments will clarify the time limits for public comment and address recent changes in the law applicable when members of the public use translators to assist with providing public comment. In addition, the amendments will, in certain areas, conform the procedures to long-standing Board practice. A public consultation meeting was held on August 10, 2017, to consider key proposals and revisions are being recommended in response to public comments received at the meeting. (No Committee Review)

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.

CLOSED SESSION - (*No Written Material*)

Wiese/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:

- Aerocraft Heat Treating Co., Inc. v. SCAQMD, Los Angeles Superior Court Case No. TC028725;
- SCAQMD v. Anaplex, Los Angeles Superior Court Case No. BC608322 (Paramount Hexavalent Chromium);
- In the Matter of SCAQMD v. Aerocraft Heat Treating Co., Inc. and Anaplex Corp., SCAQMD Hearing Board Case No. 6066-1 (Order for Abatement);
- Arizona v. Bahr, United States Supreme Court Case No. 16-1369 (Contingency Measures);
- Beck v. SCAQMD, WCAB Case Nos. ADJ1914537 and ADJ9748689;
- In the Matter of SCAQMD v. Browning-Ferris Industries of California, Inc. dba Sunshine Canyon Landfill, 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 the Matter of SCAQMD v. Exide Technologies, Inc., SCAQMD Hearing Board Case No. 3151-29 (Order for Abatement);
- In re: Exide Technologies, Inc., U.S. Bankruptcy Court, District of Delaware, Case No. 13-11482 (KJC) (Bankruptcy Case);
- In the Matter of SCAQMD v. Torrance Refining Company, LLC, SCAQMD Hearing Board Case No. 6060-5 (Order for Abatement);
- Fast Lane Transportation, Inc. et al. v. City of Los Angeles, et al., Contra Costa County Superior Court Case No. MSN14-0300 (formerly South Coast Air Quality Management District v. City of Los Angeles, et al., Los Angeles Superior Court Case No. BS 143381) (SCIG); and
- SCAQMD v. EPA, U.S. Court of Appeals, D.C. Circuit, Case No. 15-1115 (consolidated with 15-1123, Sierra Club, et al. v. EPA) (Out-of-Area RFP).

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 (one case).

CONFERENCE WITH NEGOTIATORS

It is also necessary to recess to closed session pursuant to Government Code Section 54957.6 to confer regarding upcoming labor negotiations with:

- designated representatives regarding represented employee salaries and benefits or other mandatory subjects within the scope of representation [Negotiator: A. John Olvera; Represented Employees: Teamsters Local 911 and SCAQMD Professional Employees Association]; and to confer with:
- labor negotiators regarding unrepresented employees [Agency Designated Representative: A. John Olvera; Unrepresented Employees: Designated Deputies and Management and Confidential employees].

ADJOURNMENT

*****PUBLIC COMMENTS*****

Members of the public are afforded an opportunity to speak on any listed item before or during 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 may be limited to three (3) minutes each.

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

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the July 7, 2017 meeting.

RECOMMENDED ACTION:

Approve Minutes of the July 7, 2017 Board Meeting.

Denise Garzaro
Clerk of the Boards

DG

FRIDAY, JULY 7, 2017

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

Mayor Pro Tem Ben Benoit, Vice Chairman
Cities of Riverside County

Council Member Joe Buscaino
City of Los Angeles

Supervisor Marion Ashley
County of Riverside

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

Supervisor Sheila Kuehl
County of Los Angeles

Dr. Joseph K. Lyou
Governor's Appointee

Mayor Pro Tem Larry McCallon
Cities of San Bernardino County

Council Member Judith Mitchell
Cities of Los Angeles County – Western Region

Supervisor Shawn Nelson
County of Orange

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

Council Member Dwight Robinson
Cities of Orange County

Supervisor Janice Rutherford
County of San Bernardino

CALL TO ORDER: Chairman Burke called the meeting to order at 9:00 a.m.

- Pledge of Allegiance: Led by Council Member Buscaino.
- Opening Comments

Mayor Cacciotti reported that he and several student interns traveled to today's meeting by bus; and noted the importance of promoting more streamlined public transit options. He invited Dan Mabe to demonstrate a battery-operated leaf blower that is similar to the model available through the District's leaf blower exchange program.

Mr. Mabe, American Green Zone Alliance, demonstrated a battery-operated leaf blower and thanked the Board for promoting programs that encourage the use of new technology in the landscape maintenance industry.

Supervisor Nelson expressed concern about electrification efforts and the rising costs of electricity.

Mayor Cacciotti reported that the City of South Pasadena is working with Los Angeles Community Choice Energy in an effort to reduce electricity costs for its residents. He added that the city has also conducted an energy audit and is considering solar energy for many city facilities.

Supervisor Kuehl commented that the County of Los Angeles formed a Joint Powers Authority to create a community choice aggregation program to purchase electricity on the wholesale market and provide it to residents and businesses at competitive rates.

Dr. Lyou reported that on June 12, 2017 he attended a press conference in Los Angeles regarding the Ports Clean Air Action Plan. Council Member Buscaino gave a speech about the actions taken to clean up the ports. On June 21, 2017 he joined SCAQMD staff on a tour of the Long Beach container terminal, where great progress has been made to convert operations to cleaner technologies. He encouraged his colleagues and staff to tour the facility.

Chairman Burke announced that he traveled to Washington, D.C. in June with Dr. Parker and SCAQMD staff.

Dr. Parker reported that on that visit he had several productive meetings with Senators and legislative staff about a proposed demonstration project for low NOx emission trucks and funding options.

Chairman Burke acknowledged the presence of the 2017 SCAQMD student interns and thanked them, in advance, for their efforts.

CONSENT CALENDAR

1. Approve Minutes of June 2, 2017 Board Meeting
2. Set Public Hearing September 1, 2017 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations

Determine that Proposed Amendments to Rule 1401 – New Source Review of Toxic Air Contaminants Are Exempt from CEQA and Amend Rule 1401

Budget/Fiscal Impact

3. Execute Contract to Develop and Demonstrate Battery Electric Switcher Locomotive
4. Recognize and Transfer Funds, Execute Agreements for Installation of Air Filtration Systems and Reimburse General Fund for Administrative Costs
5. Recognize Revenue and Amend Award to Develop and Demonstrate Fuel Cell Heavy-Duty Truck
6. Recognize Revenue and Transfer and Appropriate Funds for Air Monitoring and Emergency Response Programs, and Issue Solicitations and Purchase Orders for Air Monitoring and Laboratory Equipment and Vehicles
7. Approve Cargo Handling Equipment Projects Under Proposition 1B-Goods Movement Program
8. Recognize Revenue, Approve Awards for School Bus Replacements and Reimburse General Fund for Administrative Costs
9. Transfer Funds, Appropriate Funding, Execute Purchase Orders, Execute Contract and Authorize Release of RFQs for Fifth Multiple Air Toxics Exposure Study
10. Issue Request for Information to Evaluate Optical Remote Sensing Instruments to Evaluate Emissions from Refinery Flares
11. Amend Contracts to Provide Short- and Long-Term Systems Development, Maintenance and Support Services

12. Amend Meal Reimbursements Provisions of SCAQMD's Administrative Code
13. Adopt Resolution and Amend Administrative Code for Hearing Board Member Compensation
14. Amend Contract for Targeted Outreach for "The Right to Breathe" Video Utilizing YouTube Videos and Banner Ads
15. Establish Lists of Prequalified Counsel to Represent and Advise SCAQMD on Legal Matters Related to Environmental Law, and to Represent and Advise SCAQMD Hearing Board
16. Approve Contract Award and Approve Fund Transfer for Miscellaneous Costs in FY 2017-18 as Approved by MSRC

Items 17 through 22 - Information Only/Receive and File

17. Legislative, Public Affairs and Media Report
18. Hearing Board Report
19. Civil Filings and Civil Penalties Report
20. Lead Agency Projects and Environmental Documents Received by SCAQMD
21. Rule and Control Measure Forecast
22. Status Report on Major Ongoing and Upcoming Projects for Information Management

Dr. Lyou announced his abstention on Item No. 4 because IQAir North America is a potential source of income to him; on Item No. 5 because Port of Long Beach is a potential source of income to him; and Item Nos. 9 and 34 because Sonoma Technology is a potential source of income to him; and Item No. 14 because of a financial interest in Google.

Supervisor Kuehl and Mayor Pro Tem Benoit announced their abstentions on Item No. 14 because of a financial interest in Google.

Supervisor Ashley announced his abstention on Item No. 34 because of a financial interest in Exxon.

Council Member Mitchell noted that she is a board member of the CARB which is involved with Item No. 8.

Mayor Cacciotti announced his abstention on Item 4 because of a potential conflict due to his work in the Attorney General's office.

Agenda Item Numbers 1, 3, 11, 12, 13 and 14 were pulled for comment and discussion.

23. Items Deferred from Consent Calendar

1. Approve Minutes of June 2, 2017 Board Meeting

11. Amend Contracts to Provide Short- and Long-Term Systems Development, Maintenance and Support Services

Eric Preven complimented the Board on the process of extending and amending contracts and the RFP process.

12. Amend Meal Reimbursements Provisions of SCAQMD's Administrative Code

Mr. Preven stated that bringing the meal reimbursement provisions in line with the General Services Administration was reasonable.

14. Amend Contract for Targeted Outreach for "The Right to Breathe" Video Utilizing YouTube Videos and Banner Ads

Dr. Lyou left the room during discussion of Item No. 14.

Mr. Preven noted that YouTube is a great tool for public outreach.

MOVED BY BUSCAINO, SECONDED BY KUEHL,
AGENDA ITEMS 1, 2, 4 THROUGH 12 AND 14
THROUGH 22 APPROVED AS RECOMMENDED, BY
THE FOLLOWING VOTE:

AYES: Ashley, Benoit (*except Item #14*), Burke,
Buscaino, Cacciotti (*except Item #4*),
Kuehl (*except Item #14*), Dr. Lyou
(*except Items # 4, #5, #9 and #14*),
McCallon, Mitchell, Nelson, Parker,
Robinson and Rutherford

NOES: None

ABSTAIN: Benoit (*Item #14 only*), Cacciotti (*Item #4 only*), Kuehl (*Item #14 only*) and Lyou (*Items #4, #5, #9 and #14 only*)

ABSENT: None

3. Execute Contract to Develop and Demonstrate Battery Electric Switcher Locomotive

Mayor Cacciotti spoke in favor of the proposed project and asked staff to provide an overview of the program.

Dr. Matt Miyasato, DEO/Science and Technology Advancement, explained that Real Propulsion Systems has identified a way to retrofit a switcher locomotive to battery-electric technology and U.S. EPA is co-funding the project. He added that zero- and near-zero emission locomotive technologies will result in significant NOx emission reductions.

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

AYES: Ashley, Benoit, Burke, Buscaino,
Cacciotti, Kuehl, Lyou, McCallon,
Mitchell, Nelson, Parker, Robinson and
Rutherford

NOES: None

ABSENT: None

13. Adopt Resolution and Amend Administrative Code for Hearing Board Member Compensation

Mr. Preven expressed support for the pay increases for Hearing Board members which will hopefully aid in retention of qualified candidates.

Mayor Pro Tem McCallon questioned the purpose of providing an increase in compensation to the medical Hearing Board member above and beyond the compensation of the other members.

Chairman Burke explained that the increase is necessary in order to recruit and retain qualified physician candidates for the Hearing Board. Further, the higher compensation for the medical member of the board is consistent with the CARB model.

MOVED BY MITCHELL, SECONDED BY KUEHL,
AGENDA ITEM 13 APPROVED, ADOPTING
RESOLUTION NO. 17-10 MODIFYING THE
COMPENSATION FOR MEMBERS AND
ALTERNATE MEMBERS OF THE SCAQMD
HEARING BOARD, BY THE FOLLOWING VOTE:

AYES: Ashley, Benoit, Burke, Buscaino,
Cacciotti, Kuehl, Lyou, McCallon,
Mitchell, Nelson, Parker, Robinson and
Rutherford

NOES: None

ABSENT: None

BOARD CALENDAR

24. Administrative Committee
25. Special Administrative Committee
26. Investment Oversight Committee
27. Legislative Committee
28. Mobile Source Committee
29. Stationary Source Committee
30. Technology Committee
31. Mobile Source Air Pollution Reduction Review Committee
32. California Air Resources Board Monthly Report

33. California Fuel Cell Partnership Executive Board Meeting Agenda and Quarterly Updates

Agenda Item No. 27 was withheld for discussion.

MOVED BY LYOU, SECONDED BY BENOIT, AGENDA ITEMS 24 THROUGH 26, AND 28 THROUGH 33, APPROVED AS RECOMMENDED, RECEIVING AND FILING THE COMMITTEE, MRSC AND CARB REPORTS, BY THE FOLLOWING VOTE:

AYES: Ashley, Benoit, Burke, Buscaino, Cacciotti, Kuehl, Lyou, McCallon, Mitchell, Nelson, Parker, Robinson and Rutherford

NOES: None

ABSENT: None

27. Legislative Committee

Mr. Nastri explained that recent changes to the draft language for the California Greenhouse Gas Cap and Trade Program by the Governor's office and the Legislature prompted staff to prepare an errata sheet containing a change in the previous staff recommendation of Support which was adopted by the Legislative Committee on June 9, 2017. The proposal would require the District to deploy a network of advanced air monitoring systems in areas specified by CARB in an effort to reduce criteria and toxic pollutants in communities with the highest emission burdens. One of the other proposals is having a BARCT requirement for all sources under the Cap and Trade Program that districts would be required to implement by January 1, 2021, with an update required every three years thereafter. This involves a significant undertaking and cost burden for the District and there is no funding provided for any of the programs. Therefore, staff is now recommending that the Board adopt the following position: "The SCAQMD supports the reauthorization of the California Greenhouse Cap and Trade Program beyond the year of 2020, if the state provides significant and sustained funding for any mandates imposed on air districts in connection with reauthorization, including incentive funding to reduce mobile source emissions if reductions of criteria and toxic air pollutants is required."

Supervisor Kuehl asked if there is a report available regarding Cap and Trade funds that the District has already received, and requested clarification on the language in the proposed recommendation that the funding be significant and sustained.

Dr. Miyasato replied that two large projects funded through Cap and Trade were the Replace Your Ride Program and a drayage truck replacement program.

Mr. Nastri stressed the importance of receiving a commitment for funding as the resources required for such an undertaking will be immense.

Council Member Mitchell asked if there was a concern about additional burdens on air districts for both mobile and stationary sources.

Mr. Nastri responded affirmatively and asked Dr. Fine to speak to the resource impacts that will be associated with BARCT assessments.

Dr. Fine replied that the proposed language increases the role of CARB significantly when it comes to criteria pollutant emissions and toxic emissions from stationary sources, which is a significant change. He added that also under consideration is a requirement to reassess BARCT and BACT on all major sources every three years, which is an enormous task. The BARCT assessment for RECLAIM, which was a small subset of the facilities in the Greenhouse Gas Cap and Trade Program, took three years and was very controversial, therefore, funding for the mandates under this proposed legislation is critical.

MOVED BY MITCHELL, SECONDED BY PARKER, ITEM 27 APPROVED, RECEIVING AND FILING THE LEGISLATIVE COMMITTEE REPORTS AND APPROVING THE FOLLOWING POSITIONS ON LEGISLATION, WITH THE AMENDMENT TO THE COMMITTEE RECOMMENDATION SUPPORTING THE REAUTHORIZATION OF THE CALIFORNIA GREENHOUSE GAS CAP AND TRADE PROGRAM BEYOND THE YEAR 2020, IF THE STATE PROVIDES SIGNIFICANT AND SUSTAINED FUDING FOR ANY MANDATES IMPOSED ON AIR DISTRICTS IN CONNECTION WITH REAUTHORIZATION, INCLUDING INCENTIVE FUNDING TO REDUCE MOBILE SOURCE EMISSIONS IF REDUCTIONS OF CRITERIA AND TOXIC AIR POLLUTANTS IS REQUIRED, BY THE FOLLOWING VOTE:

AYES: Ashley, Burke, Buscaino,
Cacciotti, Kuehl, Lyou, Mitchell,
Parker and Rutherford

NOES: Benoit, McCallon, Nelson and Robinson

ABSENT: None

Agenda Item	Recommendation
AB 378 (C. Garcia) Greenhouse Gases, Criteria Air Pollutants, and Toxic Air Contaminants	Work with Author
AB 890 (Medina) Local Land Use Initiatives: Environmental Review	Watch
AB 1073 (E. Garcia) California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program	Support
AB 1647 (Muratsuchi) Petroleum Refineries: Air Monitoring Systems	Work with Author
AB 739 (Chau) State vehicle fleet:	Support Purchases
AB 797 (Irwin) Solar thermal systems	Support
AB 1239 (Holden) Building standards: electric vehicle charging infrastructure	Support
SB 100 (De Leon) California Renewables Portfolio Standard Program: emissions of greenhouse gases	Support
SB 518 (De Leon) Clean Energy Job Creation Program and citizen oversight board	Support
SCAQMD Policy Regarding Reauthorization of California Greenhouse Gas Cap & Trade Program	*See below

*The SCAQMD supports the reauthorization of the California Greenhouse Cap and Trade Program beyond the year of 2020, if the state provides significant and sustained funding for any mandates imposed on air districts in connection with reauthorization, including incentive funding to reduce mobile source emissions if reductions of criteria and toxic air pollutants is required.

Supervisor Nelson stressed the importance of keeping to a firm meeting schedule and avoiding changes in dates as it can cause scheduling conflicts.

Mr. Nastri commented that dates are rarely changed, but there are times when there is a need to revise a meeting date and an effort is made to accommodate Board Member schedules in those instances.

Dr. Lyou noted that the Board meeting dates have been changed in January, July and September if needed to accommodate holidays.

Mr. Wiese suggested that this topic be added to the agenda for an Administrative Committee meeting for further discussion.

Chairman Burke asked staff to place a discussion of this issue on the next Administrative Committee meeting agenda.

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41. Amend Governing Board Meeting Procedures

Chairman Burke explained that after watching a recent meeting of the Los Angeles County Board of Supervisors and hearing that Board's code of conduct for meetings, he asked staff to review the District's code of conduct to see if updates were warranted. He stressed the importance of receiving public input by various stakeholders and requested that staff assemble a task force to receive input on the proposed changes before the Governing Board consider the item.

Supervisor Kuehl stressed the importance of setting time limits that allow the public to give persuasive testimony and suggested that code of conduct procedures from other entities be reviewed.

Harvey Eder, Solar Power Coalition, expressed support for a limit of two minutes for public testimony with the potential to increase the limit for more involved items.

Florence Gharibian, Del Amo Action Committee, noted that the District has done an excellent job of providing opportunities for the public to participate in meetings, forums and workshops and encouraged the Board to continue to offer meetings in local communities.

Adrian Martinez, EarthJustice, expressed concern about limiting public testimony as the items the Board considers are often complex. He supported seeking additional feedback from stakeholders.

Bill LaMarr, California Small Business Alliance
David Rothbart, Southern California Alliance of Publicly Owned Treatment Works

Noted their support for the Board addressing the restoration of decorum and respect to public meetings and expressed concern about limiting public testimony to 90 seconds, especially regarding matters of a complex and technical nature.

Eric Preven expressed concern with limiting testimony to less than 3 minutes because of the difficulty it presents for providing testimony on difficult issues.

Chairman Burke directed staff to put together a task force of stakeholders to develop recommendations for potential changes to the Governing Board Procedures.

Mr. Nastri confirmed that staff would report on those recommendations at the September 1, 2017 Board meeting.

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Staff Presentation/Board Discussion

34. Execute Contracts for Supplemental Environmental Projects in City of Torrance from ExxonMobil Settlement Agreement Fund

As a result of their previously noted abstentions, Dr. Lyou and Supervisor Ashley left the room during discussion of Item No. 34.

Tracy Goss, Planning and Rules Manager, gave the staff presentation on Item 34.

Chairman Burke noted the extensive process that has taken place to select the projects that will be implemented with the settlement funds. He inquired about concerns raised by community members regarding the City's ability to disseminate timely notifications.

Dr. Fine responded that the staff recommendation proposes integrating the monitoring element provided by Sonoma Technology with the community alert system in place with the City of Torrance. This will provide the best use of funds as the City already has the infrastructure for emergency response in place and that will be enhanced with the monitoring element from Sonoma Technology.

MOVED BY BENOIT, SECONDED BY ROBINSON,
AGENDA ITEM 34 APPROVED AS RECOMMENDED,
BY THE FOLLOWING VOTE:

AYES: Benoit, Burke, Buscaino, Cacciotti, Kuehl, McCallon, Mitchell, Nelson, Parker, Robinson and Rutherford

NOES: None

ABSTAIN: Ashley and Lyou

ABSENT: None

PUBLIC HEARINGS

35. Approve Supplemental RACM/RACT Analysis for 2006 24-Hour PM2.5 and 2008 8-Hour Ozone Standards

Michael Krause, Planning and Rules Manager, gave the staff presentation on Item 35.

The public hearing was opened; and the following individual addressed the Board on Item 35.

Harvey Eder, Public Solar Power Coalition, expressed the need for solar energy to be evaluated as Best Available Retrofit Control Technology.

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

MOVED BY NELSON, AND SECONDED BY CACCIOTTI, AGENDA ITEM NO. 35 WAS APPROVED, ADOPTING RESOLUTION NO. 17-11, APPROVING THE SUPPLEMENTAL RACM/RACT ANALYSIS FOR 2006 PM2.5 AND 2008 OZONE STANDARDS FOR THE SOUTH COAST BASIN AND COACHELLA VALLEY AND DIRECTING THE EXECUTIVE OFFICER TO SUBMIT THE SUPPLEMENTAL RACM/RACT ANALYSIS TO CARB FOR INCLUSION INTO THE SIP AND U.S. EPA'S APPROVAL, BY THE FOLLOWING VOTE:

AYES: Ashley, Benoit, Burke, Buscaino, Cacciotti, Kuehl, Lyou, McCallon, Mitchell, Nelson, Parker, Robinson and Rutherford

NOES: None

ABSENT: None

36. **Certify the Final Subsequent Environmental Assessment and Amend Rule 1147 – NOx Reductions from Miscellaneous Sources (Continued from June 2, 2017 meeting by operation of Governing Board Procedures, Administrative Code §30.10)**

Tracy Goss, Planning and Rules Manager, gave the staff presentation on Item 36. He explained that an errata sheet containing amendments to the Resolution and Final Subsequent Environmental Assessment was provided to the Board Members and copies were made available to the public.

Council Member Mitchell introduced three motions to amend the staff proposal. The amendments include extending the period of compliance for burners with emissions less than 1 pound per day from 30 to 35 years, promoting outreach to burner manufactures to encourage development of low NOx burners and make sure they are aware of SCAQMD funding available for this purpose, and changing the term warranty to emission certification.

Dr. Lyou inquired what the potential impact, in terms of emissions or legal requirements, would be with the proposed change in language from “performance warranties” to “emission certifications”.

Mr. Goss replied that the change does not have an effect on emissions as the language change simply provides clarification. He added that U.S. EPA has reviewed and approved the language change.

The public hearing was opened, and the following individuals addressed the Board on Item 36.

Kelly Willmott, AMVAC Chemical Corporation, expressed support for the proposed amendments.

Bill LaMarr, California Small Business Alliance, thanked staff for their commitment to amending the rule in order to make it less burdensome on small businesses. He urged staff to continue to explore methods to reduce the costs for businesses to demonstrate compliance with the rule.

Gerry Enders, Autosquare Collision Center, stated that he continues to have difficulties with the burner at his facility and while the manufacturer has provided a replacement compliant burner, the District will not allow it to be installed without an additional fee.

Dr. Laki Tisopoulos, DEO/Engineering and Permitting, explained that Mr. Enders’ permit application had been received the week prior to the meeting and staff is expediting the processing of the application and permit amendments.

Anthony Endres, Furnace Dynamics, explained that he has been working with staff on this rule since 2008 and expressed concern about the 30 year retrofit requirement for businesses who are small emitters. He urged the Board to consider a modified verification process using portable analyzers to quantify emissions as this provides for a less costly option than source testing for small businesses. He expressed his willingness to continue to work with staff to identify alternatives.

Brian Edison, Autosquare Collision Center, expressed support for the current proposal, although he is concerned with the continued issues with temperature on low NOx burners that makes the equipment unusable. He urged the Board and staff to thoroughly research new technology options before requiring businesses make large investments in new equipment.

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

Council Member Mitchell directed staff to continue to work with the regulated community on this rule and the costs associated with it.

COUNCILMEMBER MITCHELL MOVED TO DIRECT STAFF TO CONDUCT OUTREACH TO BURNER MANUFACTURERS, INCLUDING MANUFACTURERS OF SPRAY BOOTH HEATERS, REGARDING AN EXISTING PROGRAM FOR AVAILABLE FUNDING THROUGH THE AIR QUALITY INVESTMENT FUND (FUND 27), RULE 1121 EMISSION MITIGATION FEE PROGRAM, TO REIMBURSE COMPANIES THAT SEEK TO CERTIFY HEATING SYSTEMS FOR RULE 1147 COMPLIANCE AND REPORT TO THE STATIONARY SOURCE COMMITTEE BY ITS DECEMBER 2017 MEETING ON THE STATUS OF OUTREACH AND THE USE OF THE FUNDS; AND ADOPT RESOLUTION NO. 17-12, CERTIFYING THE FINAL SUBSEQUENT ENVIRONMENTAL ASSESSMENT FOR PROPOSED AMENDED RULE 1147 – NO_x REDUCTIONS FROM MISCELLANEOUS SOURCES AND AMENDING RULE 1147, WITH THE AMENDMENTS TO THE RESOLUTION, ENVIRONMENTAL ASSESSMENT, AND PAR 1147 AS STATED IN THE ERRATA SHEET AND SET FORTH BELOW. THE MOTION WAS SECONDED BY SUPERVISOR KUEHL AND CARRIED BY THE FOLLOWING VOTE:

AYES: Ashley, Benoit, Burke, Buscaino,
Cacciotti, Kuehl, Lyou, McCallon,
Mitchell, Nelson, Parker, Robinson and
Rutherford

NOES: None

ABSENT: None

Amend language in Resolution as follows:

Attachment 1 to Resolution (Attachment E), Page 2

~~However, since PAR 1147 contains adjustments to compliance dates for certain types of equipment and alternatives to the project that are either the 'no project' alternative, or different adjustments to the compliance dates than what is proposed in PAR 1147 (see Chapter 5 of the Final SEA), the analysis in the Final SEA concluded that there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for NOx emissions to less than significant levels.~~

Attachment 1 to Resolution (Attachment E), Page 4

~~However, since PAR 1147 contains adjustments to compliance dates for certain types of equipment and alternatives to the project that are either the 'no project' alternative, or different adjustments to the compliance dates than what is proposed in PAR 1147, there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for NOx emissions to less than significant levels.~~

Amend language in Final Subsequent Environmental Assessment as follows:

Attachment H – Final Subsequent Environmental Assessment, Page 4-8

~~However, since PAR 1147 contains adjustments to compliance dates for certain types of equipment and alternatives to the project that are either the 'no project' alternative, or different adjustments to the compliance dates than what is proposed in PAR 1147 (see Chapter 5), there are no feasible mitigation measures that would eliminate or reduce the significant adverse operational air quality impacts for NOx emissions to less than significant levels.~~

The current version of Rule 1147 includes NOx emission limits and corresponding compliance dates for certain types of equipment. The Technology Assessment has found these to be unattainable/unachievable due to a lack of availability of compliant technology. As such, PAR 1147 provides relief for these certain types of equipment and would result in significant levels of NOx emission reductions temporarily foregone, a portion of which would be permanently foregone. While alternatives to PAR 1147 were considered (see Chapter 5), none of the alternatives would provide the required relief. Without available compliant technology for the affected equipment, the originally projected NOx emission reductions cannot be achieved and there are no mitigation measures available that would eliminate or reduce the significant NOx emissions foregone to less than significant levels.

Add provisions to Proposed Amended Rule 1147 as follows:

Modify the age requirement for compliance in PAR 1147 for units with less than one pound per day of NOx emissions from 30 years to 35 years in all PAR 1147 provisions: Requirement clause (c)(1)(A)(iii) and paragraph (c)(15), and Exemption paragraphs (g)(4), (g)(6), (g)(10), and (g)(11).

Add option for monitoring of 35 year or older units with less than 1 pound/day emissions as alternative to compliance with emission limit by adding new paragraphs (c)(16) and (c)(17).

(c)....

(16) Notwithstanding the requirements of paragraphs (c)(1) and (c)(10), an owner or operator of any in-use unit 35 years of age or older may continue operating that unit provided:

(A) NOx emissions are less than 1 pound per day as demonstrated through a biennial emissions test conducted pursuant to paragraphs (d)(1) through (d)(10) and recordkeeping with a calibrated non-resettable fuel or time meter as specified in the unit's SCAQMD Permit to Operate; and

(B) The biennial emissions test is conducted no later than 180 days before the in-use unit becomes 35 years of age for the first demonstration and no later than 18 months after completion of the previous biennial emissions test for any subsequent demonstrations.

(17) An owner or operator of a unit that fails to continuously demonstrate emissions less than one pound per day pursuant to paragraph (c)(16) shall demonstrate compliance with the applicable NOx emission limit in Table 1 through compliance with the requirements of paragraphs (d)(1) through (d)(10) no later than 1 year from the date the owner or operator fails to demonstrate unit emissions are less than one pound per day.

Change the term “performance warranties” to “emission certifications” and the word “warrants” to “guarantees” in proposed new paragraph (d)(11).

37. Certify Final Environmental Assessment and Adopt Rule 1466 — Control of Particulate Emissions from Soils with Toxic Air Contaminants

Susan Nakamura, Assistant DEO/Planning, Rule Development and Area Sources, gave the staff presentation on Item 37.

Dr. Lyou introduced two motions to amend the rule to provide added protections and include adjacent athletic sites at schools and early education centers.

Dr. Parker inquired what triggers the need for soil to be tested.

Ms. Nakamura stated that U.S. EPA, DTSC or Regional or State Water Quality Control Boards would designate the site for clean-up. When earthmoving activities on those sites that have been designated for clean-up begin, the rule requirements would apply. She added that there is also a provision that allows the Executive Officer to identify a site under specific criteria established in the rule.

Mayor Cacciotti inquired about the permit process for sites where asbestos or lead is present.

Mr. Nastri replied that depending on the amount and type of asbestos present, a permit may be required so that proper remediation measures can be taken. This particular rule relates to toxic soil clean-up efforts which will usually be identified by U.S. EPA, DTSC or Regional or State Water Quality Control Boards.

Councilman Robinson expressed concern about the practicality of the time restrictions for earth-moving equipment near adjacent school sites where athletic events typically occur.

Dr. Lyou stated that this issue had been discussed in Stationary Source Committee and there is a process where an exemption can be obtained under the proper conditions.

Ms. Nakamura explained that if an exemption is requested, multiple factors are taken into consideration including the health risks, the surrounding community and receptor locations.

The public hearing was opened, and the following individuals addressed the Board on Item 37.

David Rothbart, Southern California Alliance of Publicly Owned Treatment Works, expressed concern with projects that need trenching for sewage and the impact that this rule might have on that industry. He noted that it is his understanding that linear trenching activities would be exempt but the rule language, as written, seems to limit those activities to 500 cubic yards which would not be sufficient for most projects.

Ms. Nakamura responded that the rule includes an exemption for linear trenching for sewer projects.

Curtis Coleman, Southern California Air Quality Alliance, spoke in favor of the rule and thanked staff for their collaboration throughout the rule development process.

Florence Gharibian, Del Amo Action Committee, supports the rule, which will assist other regulatory agencies in ensuring that earth-moving activities are done safely and in a manner that protects public health. She added that she supports the revisiting of this rule to add provisions for other toxic chemicals.

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

Written Comments Submitted By:

Robina Suwol, California Safe Schools

Supervisor Kuehl requested further clarification on the exemption language for sewer projects on roadways and earth moving activities.

Ms. Nakamura commented that the language does exempt sewer projects on roadways and earthmoving activities and referenced section k(3) in the rule.

Mr. Nastri suggested amending paragraph k(3) to address the concerns identified by Supervisor Kuehl and to clarify the language by separating roadways and earth-moving activities into two sections, k(3) and k(4). Dr. Lyou expressed support for those revisions.

MOVED BY LYOU, AND SECONDED BY BENOIT, AGENDA ITEM NO. 37 APPROVED, ADOPTING RESOLUTION NO. 17-13, CERTIFYING THE FINAL ENVIRONMENTAL ASSESSMENT FOR PROPOSED RULE 1466 AND ADOPTING RULE 1466— CONTROL OF PARTICULATE EMISSIONS FROM SOILS WITH TOXIC AIR CONTAMINANTS, WITH AMENDMENTS AS SET FORTH BELOW, BY THE FOLLOWING VOTE:

AYES: Ashley, Benoit, Burke, Buscaino, Cacciotti, Kuehl, Lyou, McCallon, Mitchell, Nelson, Parker, Robinson and Rutherford

NOES: None

ABSENT: None

Amend Rule 1466 as follows -

Add definition for adjacent athletic area as (c)(2):

(c)

(2) ADJACENT ATHLETIC AREA is any outdoor athletic field or park where youth organized sports occur that is in physical contact or separated solely by a public roadway or other public right-of-way to a school or early education center.

Add provisions (e)(11) and (e)(11)(B) to include adjacent athletic area and youth organized sports:

(e)...

- (11) An owner or operator that is conducting earth-moving activities of soil with applicable toxic air contaminant(s) at a school, early education center, ~~or joint use agreement property,~~ or adjacent athletic area shall:
- (A) Only conduct earth-moving activities at a school or early education center outside of the hours between 7:30 a.m. and 4:30 p.m. on days when the school or early education center is in session;
- (B) ~~Only~~ Not conduct earth-moving activities at a school, early education center, ~~or joint use agreement property,~~ or adjacent athletic area if whenever there is a no-school or early education center sponsored activity or youth organized sports at that site;

Amend provision (k) as follows:

(k)

(3) Linear trenching for sewer projects on roadways ~~and earth-moving activities consisting only of excavation activities of soil~~ with applicable toxic air contaminants, directly loaded into a truck or bin for transport, shall be exempt from all requirements except: paragraphs (e)(2) through (e)(8), paragraph (e)(11), and subdivisions (f), (h), and (i).

(4) Earth-moving activities consisting only of excavation activities of soil with applicable toxic air contaminants of less than 500 cubic yards, directly loaded into a truck or bin for transport, shall be exempt

from all requirements except: paragraphs (e)(2) through (e)(8), paragraph (e)(11), and subdivisions (f), (h), and (i).

(4)(5) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency as declared by an authorized health officer, agricultural commissioner, fire protection officer, or other authorized agency officer shall be exempt from all requirements. The Executive Officer shall be notified electronically no later than 48 hours following such earth-moving activities. Written notification shall include written emergency declaration from the authorized officer.

~~(5)~~(6) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water, or sewer during periods of service outages and emergency disruptions shall be exempt from all requirements. The Executive Officer shall be notified electronically no later than 48 hours following such earthmoving activities.

38. Determine That Proposed Amendments to Rule 1118 – Control of Emission from Refinery Flares Are Exempt from CEQA; Amend Rule 1118; and Transfer and Appropriate Funding

Supervisor Ashley announced his abstention on Item No. 38 because of a financial interest in Chevron and left the room during discussion of the item.

Ian MacMillan, Planning and Rules Manager, gave the staff presentation on Item 38.

The public hearing was opened, and the following individuals addressed the Board on Item 38.

Jamini Parekh, Communities for a Better Environment, spoke in favor of strengthening the flare rule. She proposed two amendments to the rule, including replacing the emission factors for propane, butane, and methane with the U.S. EPA's VOC emission factor because the current factors do not sufficiently account for emissions and pollution from refineries; and secondly, that a requirement be added to evaluate how to meet VOC performance standards for all flares, not just clean service flaring. (Submitted Written Comments)

Dr. Lyou inquired if the VOC emission standard in the rule would be revisited in the future.

Dr. Fine responded that facilities will be required to prepare a scoping document addressing what can be done to minimize or eliminate flaring at different levels. This information will be evaluated for potential future rule changes.

Dr. Lyou further inquired as to why the U.S. EPA guidance document does not categorize clean service flares or flares that have dedicated propane or butane flares.

Mr. MacMillan noted that the emission factors from the U.S. EPA apply nationally and other parts of the country do not have as stringent requirements; the flaring can also be considered process flaring rather than clean service flaring. He added that applying one number to the entire nation is very difficult and through the optimal remote sensing study, data will be collected that can be shared with U.S. EPA.

Dr. Parker noted that refining operations in other parts of the country differ greatly from California because of different types of crude production and therefore flaring is dissimilar.

Alicia Rivera, Communities for a Better Environment, expressed support for the amended rule for refinery flares, but opposed the two year timeline for compliance. She noted health impacts increase when flaring occurs and added that the emission factors should be higher for flaring operations. (Submitted Written Comments)

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

MOVED BY CACCIOTTI, AND SECONDED BY ROBINSON, AGENDA ITEM NO. 38 APPROVED, ADOPTING RESOLUTION NO. 17-14, DETERMINING THAT THE PROPOSED AMENDMENTS TO RULE 1118—CONTROL OF EMISSIONS FROM REFINERY FLARES ARE EXEMPT FROM CEQA, AMENDING RULE 1118, AND TRANSFERRING AND APPROPRIATING FUNDING, BY THE FOLLOWING VOTE:

AYES: Benoit, Burke, Buscaino, Cacciotti, Kuehl, Lyou, McCallon, Mitchell, Nelson, Parker, Robinson and Rutherford

NOES: None

ABSTAIN: Ashley

ABSENT: None

39. Certify Nonattainment New Source Review Compliance Demonstration for 2008 Ozone Standard **(Continued from June 2, 2017 meeting by operation of Governing Board Procedures, Administrative Code §30.10)**

Staff waived the presentation on Item No. 39.

The public hearing was opened; there being no requests to speak, the public hearing was closed.

MOVED BY BENOIT, AND SECONDED BY CACCIOTTI, AGENDA ITEM NO. 39 APPROVED, ADOPTING RESOLUTION NO. 17-15, CERTIFYING THE NONATTAINMENT NSR COMPLIANCE DEMONSTRATION FOR THE 2008 OZONE STANDARD FOR THE SOUTH COAST AIR BASIN AND THE COACHELLA VALLEY, AND DIRECTING STAFF TO FORWARD THE CERTIFIED NONATTAINMENT NSR COMPLIANCE DEMONSTRATION TO THE CARB FOR REVIEW AND SUBMISSION TO THE U.S. EPA AS A SIP REVISION, BY THE FOLLOWING VOTE:

AYES: Ashley, Benoit, Burke, Buscaino, Cacciotti, Kuehl, Lyou, McCallon, Mitchell, Nelson, Parker, Robinson and Rutherford

NOES: None

ABSENT: None

40. 2016 Annual Report on AB 2588 Air Toxics Hot Spots Program

Staff waived the presentation on Item No. 40.

The public hearing was opened; there being no requests to speak, the public hearing was closed.

MOVED BY BENOIT, SECONDED BY CACCIOTTI, AGENDA ITEM 40 APPROVED, RECEIVING AND FILING THE 2016 ANNUAL REPORT ON AB 2588 AIR TOXICS HOT SPOT PROGRAM, BY THE FOLLOWING VOTE:

AYES: Ashley, Benoit, Burke, Buscaino, Cacciotti, Kuehl, Lyou, McCallon, Mitchell, Nelson, Parker, Robinson and Rutherford

NOES: None

ABSENT: None

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

Eric Preven, spoke about disruptions at public meetings and commented on the importance of public testimony and thanked the Board for taking action on earth moving activities related to toxic soils. He raised the issue of short haul transportation workers at the Ports and the loss of jobs in this industry.

Harvey Eder, Public Solar Power Coalition, encouraged Board members to read the article “Air Pollution and Mortality and the Medicare Population” in the June 29 Issue of the New England Journal of Medicine.

CLOSED SESSION

The Board recessed to closed session at 12:15 p.m., 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:

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

In the Matter of SCAQMD v. Exide Technologies, Inc., SCAQMD Hearing Board Case No. 3151-29 (Order for Abatement); and

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

- 54956.9(a) and 54956.9(d)(4) to consider initiation of litigation (one case).

Following closed session, General Counsel Kurt Wiese announced that there were no reportable actions taken in closed session¹.

¹ Subsequently, counsel determined to file a report and a report of action taken in closed session is on file with the Clerk of the Board’s office.

ADJOURNMENT

There being no further business, the meeting was adjourned by Kurt Wiese at 1:00 p.m.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on July 7, 2017.

Respectfully Submitted,

Denise Garzaro
Clerk of the Boards

Date Minutes Approved: _____

Dr. William A. Burke, Chairman

ACRONYMS

BACT = Best Available Control Technology
BARCT = Best Available Retrofit Control Technology
CARB = California Air Resources Board
CEQA = California Environmental Quality Act
DEO = Deputy Executive Officer
DTSC = Department of Toxic Substances Control
FY = Fiscal Year
MSRC = Mobile Source (Air Pollution Reduction) Review Committee
NOx = Oxides of Nitrogen
NSR = New Source Review
PAR = Proposed Amended Rule
PM2.5 = Particulate Matter \leq 2.5 microns
RECLAIM = REgional CLean Air Incentives Market
RFP = Request for Proposals
RFQ = Request for Quotations
SIP = State Implementation Plan
SOx = Oxides of Sulfur
U.S. EPA = United States Environmental Protection Agency
VOC = Volatile Organic Compound

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 2

PROPOSAL: Set Public Hearing October 6, 2017 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations:

Certify Final Environmental Assessment and Amend Rule 1168 – Adhesive and Sealant Applications

The proposed amendments will implement, in part, the 2016 Air Quality Management Plan Control Measure CTS-01-Further Emission Reductions from Coatings, Solvents, Adhesives, and Sealants, which targets a 1 ton per day VOC emission reduction by 2023. The amendments include: revision of VOC content limits for various categories; reporting and labeling requirements; clarification of rule language and applicability; language that distinguishes when products are regulated by the California Air Resources Board Consumer Product Regulation or Rule 1168; harmonization of language and requirements with regulations (state and national) affecting the same products; removal or restriction of certain exemptions; and prohibition of Group II exempt compounds as defined in Rule 102. This action is to adopt the Resolution: 1) Certifying the Final Environmental Assessment for Proposed Amended Rule 1168 – Adhesive and Sealant Applications; and 2) Amending Rule 1168 – Adhesive and Sealant Applications. (Review: Stationary Source Committee, September 15, 2017)

The complete text of the proposed amendment, staff report and other supporting documents will be available from the District's Public Information Center, (909) 396-2001 and on the Internet (www.aqmd.gov) as of September 6, 2017.

RECOMMENDED ACTION:

Set Public Hearing October 6, 2017 to amend Rule 1168.

Wayne Nastri
Executive Officer

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 3

PROPOSAL: Execute Contract to Cosponsor Versatile Plug-In Auxiliary Power Systems Demonstration

SYNOPSIS: In December 2015, the Board awarded a contract to the Electric Power Research Institute, Inc., (EPRI) to cosponsor development and demonstration of a Versatile Plug-In Auxiliary (VAP) System. EPRI is now requesting to use the previously approved cost-share for the second phase of the VAP System demonstration to evaluate the benefits and impacts of electric auxiliary power on emissions and fuel usage in various on-board and stationary applications. Up to three units will undergo baseline tests at Southern California Edison's EV Technical Center prior to field demonstration within SCAQMD. This action is to execute a contract with EPRI to demonstrate up to three VAP systems in various applications in an amount not to exceed \$125,000 from the Clean Fuels Program Fund (31).

COMMITTEE: Technology, July 21, 2017; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with the Electric Power Research Institute, Inc., to cosponsor demonstration of up to three Versatile Plug-In Auxiliary Power systems in an amount not to exceed \$125,000 from the Clean Fuels Program Fund (31).

Wayne Natri
Executive Officer

MMM:FM:NB:LHM

Background

In December 2015, the Board awarded a contract not to exceed \$125,000 to the Electric Power Research Institute (EPRI) to develop and demonstrate Versatile Plug-In Auxiliary Power (VAP) systems to provide job site electric auxiliary power to evaluate the emissions and fuel usage benefits.

The VAP System provides a multifaceted approach to electrify both fleet vehicles and job sites. The core principle is to use battery energy storage with various types of export power systems to provide zero emission electric power in place of a traditional vehicle engine or portable internal combustion (IC) generator-supplied power. The concept can be applied to vehicle systems, such as cabin cooling through electric air conditioning and chassis electrical support for laptops, tool chargers and vehicle lights to perform varying degrees of job site electrification and idle-free work operation.

In Phase 1, SCE conducted bench tests on the VAP units provided by LG Chem as originally proposed, but they were not acceptable, so the unit was not installed for on-road testing. Phase 1 costs totaled \$677,000 of in-kind support from project partners including SCE and EPRI. SCAQMD's cost-share was not expended because the on-road testing was not conducted. Based on the Phase I testing results, systems from alternative suppliers were evaluated and the scope of the project has expanded to include systems for portable power and portable DC fast charging.

Proposal

This action is to execute a contract with EPRI to cosponsor demonstration of up to three VAP systems within the SCAQMD. The objective is to evaluate the emissions and fuel usage benefits and impacts of electric auxiliary power used in various applications (e.g., truck or trailer mounted or independent mobile configuration for job sites). Baseline tests will be done by SCE on all VAP systems prior to field demonstrations.

Leveraging cost reductions in lithium-ion battery technology and specifications, testing procedures, and lessons learned in the first phase of this project, this second phase will procure, test and demonstrate multiple electrical platforms in the following subcategories:

- Small Energy VAP System Platform for job site and vehicle electrification
- Large Energy VAP System Platform for job site electrification
- Large Energy VAP System Platform for portable electric vehicle DC fast charger

All three systems will be available for demonstrations with end-users such as military, police, fire and other users identified by the project team.

The small energy VAP system to be procured from Envoltz or another provider is smaller than originally proposed and intended for installation on a work vehicle and will focus on cabin cooling, chassis electrical support and export power for light electric loads such as portable lights and cordless tool chargers. The small VAP system may be demonstrated with utility work crews at various sites and within various applications.

The two large energy VAP systems to be procured from Freewire Mobi or another provider are larger than originally proposed, and will be demonstrated within a portable IC generator application. One large energy VAP system will focus on replacing portable IC generators in applications such as a fiber optics splicing vehicle, or underground cable installation vehicle, that have constant and high loads to run air blowers, welders, climate control systems and tools currently being supplied by on-board IC generators. The other 48 kWh large VAP system will be demonstrated as a DC fast charger application with a dedicated SAEJ177- compliant Combined Charging System (CCS) fast charger connection to evaluate the usefulness and demand of a DC fast charger without the high cost of infrastructure installation costs. These Freewire Mobi units re-use lithium ion (LiMn2O4) cells from Nissan Leaf EVs, but are liquid-cooled for improved life in stationary applications.

SCE will support the deployments and evaluate the VAP systems based on the real-world needs of participants, including feedback regarding ideal sizing of energy storage systems in the most effective manner. Additional VAP systems may be produced and demonstrated in additional applications, if additional cofunding is provided. Data will be collected from each VAP system for at least 12 months, then compiled and analyzed by EPRI in a publicly available report.

Benefits to SCAQMD

The AQMP relies upon the expedited implementation of advanced technologies in Southern California to achieve air quality standards and to continue reductions in air toxic exposure. This project will apply advanced energy storage technologies in various platforms to identify best fit applications, determine their viability, gauge fleet interest and provide a pathway to commercialization. The proposed project is included in the *Technology Advancement Office Clean Fuels Program 2017 Plan Update* under “Demonstrate Alternative Energy Storage.”

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. These requests for sole source awards are made under provision B.2.d.: Other circumstances exist which in the determination of the Executive Officer require such waiver in the best interest of the SCAQMD. Specifically, these circumstances are B.2.d.(1): Project involving cost-sharing by multiple sponsors and B.2.d.(8): Research and development efforts with educational institutions or nonprofit organizations.

EPRI, founded in 1973 as a non-profit energy research consortium, manages a far-reaching program of scientific research, technology development and product implementation and has a long history of managing and supporting similar projects involving development and commercialization of new technologies. The team brought together by EPRI has significant experience in demonstration support, data acquisition,

system evaluation, emissions and performance assessment and new technology commercialization.

Resource Impacts

Funding from the Clean Fuels Program Fund (31) shall not exceed \$125,000. Project partners and proposed funding for Phase 2 demonstration are as follows:

Project Partner	Funding	(In-kind)
SCE	\$128,000	Labor for VAP operation in SCE fleet, data collection
Utility/Military/Police/Fire	\$20,000	LADWP invited or other partner*
SCAQMD (<i>requested</i>)	\$125,000	
Total	\$273,000	

*EPRI is in negotiation with LADWP and/or another potential demonstration partner

Sufficient funds are available in the Clean Fuels Fund (31), which is established as special revenue from the state-mandated Clean Fuels Program. The Clean Fuels Program, under Health and Safety Code Sections 40448.5 and 40512 and Vehicle Code Section 9250.11, establishes mechanisms to collect revenues from mobile sources to support projects to increase the utilization of clean fuels, including the development of the necessary advanced enabling technologies. Funds collected from motor vehicles are restricted, by statute, to be used for projects and program activities related to mobile sources that support the objectives of the Clean Fuels Program.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 4

PROPOSAL: Execute Contract to Demonstrate Low NO_x Combustion Technology on Refinery Boiler

SYNOPSIS: The 2016 AQMP identifies development and implementation of new technologies to further reduce NO_x emissions from stationary combustion sources as a key strategy. It is also equally important to assess new technologies to prevent or mitigate any negative impact on air quality and public health. ClearSign Combustion Corporation recently submitted an unsolicited proposal that addresses these needs using a low NO_x, non-Selective Catalytic Reduction combustion technology. Staff recommends cost-sharing the proposed project to demonstrate retrofitting their Duplex low NO_x combustion technology without the use of reagents, such as ammonia or urea, on a refinery boiler. This action is to execute a contract with ClearSign to cost-share this project in an amount not to exceed \$320,000 from the Rule 1118 Mitigation Fund (54).

COMMITTEE: Technology, July 21, 2017; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with ClearSign Combustion Corporation to conduct the demonstration of retrofitting their Duplex low NO_x combustion technology on a refinery boiler in an amount not to exceed \$320,000 from the Rule 1118 Mitigation Fund (54).

Wayne Natri
Executive Officer

MMM:FM:NB:AHB

Background

The SCAQMD region has the need to achieve significant NO_x reductions in order to meet the national ambient air quality standards for ozone. NO_x-emitting stationary sources regulated by the SCAQMD include RECLAIM facilities (e.g., refineries and power plants) and other combustion equipment (e.g., boilers, heaters, burners and

flares). The 2016 AQMP includes control measures to achieve NO_x reductions from new regulations on RECLAIM facilities, non-refinery flares and commercial cooking, as well as residential and commercial appliances. Although such combustion sources are already regulated with the lowest NO_x emissions levels achievable, pre-commercial, new technologies with the potential to further reduce NO_x emissions are available for varying combustion equipment.

Selective catalytic reduction (SCR) has been extensively used as an aftertreatment technology to reduce NO_x emissions from combustion equipment. SCR requires the injection of ammonia or urea that is reacted over a catalyst bed to reduce the NO_x formed during the combustion process. Challenges arise if ammonia distribution within the flue gas or operating temperature is not optimal, resulting in ammonia emissions leaving the SCR in a process referred to as “ammonia slip.”

Recently, ClearSign submitted an unsolicited proposal to demonstrate their proprietary Duplex low NO_x combustion technology without the use of reagents, such as ammonia or urea, on a refinery boiler with a target to achieve 3 ppm NO_x and lower PM emissions, achieving further reductions below the current applicable rules and BACT.

Proposal

ClearSign, in partnership with Torrance Refining Company, proposes to conduct a demonstration project by retrofitting a 291 million Btu per hour refinery gas-fired boiler with their Duplex burner technology. Previous studies of the Duplex technology installed on a small refinery heater demonstrated NO_x emissions between 2.5 ppm and 4.5 ppm. For the proposed project, the goal will be to achieve and validate 3 ppm NO_x emissions using a third-party source testing firm. The Duplex technology incorporates a high-temperature porous ceramic tile matrix on which combustion is sustained after the tile has been heated using a conventional burner. Once the proper tile temperature and system parameters have been achieved, transition from conventional burner to Duplex mode is done where combustion is fully sustained on the tile matrix. In addition to very low NO_x levels without the use of reagents, such as ammonia or urea, the Duplex technology is expected to provide other benefits such as enhanced CO oxidation, enhanced radiation heat transfer and noise reduction. This proposal is to cost-share a one-year demonstration of the Duplex burner technology.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies provisions under which a sole source award may be justified. This request for sole source awards is made under provisions B.2.c: The desired services are available from only the sole-source based on the following reasons; (1) The unique experience and capabilities of the proposed contractor or contractor team; (2) The project involves the use of proprietary technology; and (3) The contractor has ownership of key assets required for project performance. In addition to provision B.2.d: Other circumstances exist which in the

determination of the Executive Officer require such waiver in the best interest of the SCAQMD. Such circumstances may include but are not limited to projects involving cost-sharing by multiple sponsors. ClearSign has developed and holds sole property and intellectual rights to the Duplex burner technology, and significant in-kind and cash cost-share will be provided by ClearSign and Torrance Refining Company, as detailed below.

Benefits to SCAQMD

The proposed project is relevant to the SCAQMD’s priorities to reduce NOx and PM emissions from stationary sources to achieve national ambient air quality standards and protect public health. The proposed demonstration of the Duplex burner technology will help support the policy objective of the 2016 AQMP of investing in strategies and technologies meeting multiple objectives regarding air quality and reducing emission impacts on local neighborhoods and disadvantaged communities. In addition, the successful demonstration of the Duplex burner technology will support control measure CMB-05 in the 2016 AQMP to identify approaches in implementing Best Available Retrofit Control Technology (BARCT) and generate further NOx emission reductions at RECLAIM facilities.

Resource Impacts

The total estimated cost for the proposed project is \$960,000, of which SCAQMD’s proposed cost-share will not exceed \$320,000 from the Rule 1118 Mitigation Fund (54), as summarized below:

Proposed Project Cost-Share

Project Partner	Total by Project Partner
ClearSign (in-kind)	\$320,000
Torrance Refinery	\$320,000
SCAQMD (<i>requested</i>)	\$320,000
Total Project Cost	\$960,000

Sufficient funds are available in Rule 1118 Mitigation Fund (54) for this proposed project. Rule 1118–Control of Emissions from Refinery Flares regulates emissions from flares used at refineries as a safety device. The rule imposes an annual limitation on sulfur dioxide emissions from flaring. If a refinery exceeds a flaring limitation in the rule, the refinery is required to pay mitigation fees to the SCAQMD, as specified in the rule. The funds are to be used to develop air quality improvement projects and fund mitigation projects.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 5

PROPOSAL: Approve Additional Funds for Replacement of Onboard CNG Fuel Tanks on School Buses and Authorize Execution of Grant Agreements

SYNOPSIS: Since 2001, the SCAQMD has replaced over 1,600 pre-1994 diesel school buses primarily with CNG school buses. In April 2012, the Board issued a Program Announcement using \$3 million from the Carl Moyer Program AB 923 Fund (80) to replace onboard CNG fuel tanks on a first-come, first-served basis for public school buses at least 14 years old. In November 2016, the Board approved an additional \$2 million to continue the Program, and these funds are now exhausted. This action is to approve an additional \$3 million from the Carl Moyer Program AB 923 Fund (80) to continue on a first-come, first-served basis the replacement of onboard CNG fuel tanks for public school buses.

COMMITTEE: Technology, July 21, 2017; Recommended for Approval

RECOMMENDED ACTION:

Approve \$3 million from the Carl Moyer Program AB 923 Fund (80), and authorize the Chairman to execute grant agreements (not reviewed by Technology Committee), to continue the replacement of onboard CNG fuel tanks on a first-come, first-served basis for public school buses at least 14 years old, under an existing open Program Announcement (#PA2012-16).

Wayne Nastri
Executive Officer

MMM:FM

Background

Since the commencement of the Lower-Emission School Bus Program in 2001, SCAQMD has spent about \$280 million in state and local funds to replace over 1,600 highly polluting diesel school buses with alternative fuel buses and retrofit over 3,000 diesel school buses with particulate traps. In April 2012, the Board approved the

issuance of Program Announcement #PA2012-16 using \$3 million from the Carl Moyer Program AB 923 Fund (80) to fund on a first-come, first-served basis the replacement of onboard CNG fuel tanks for school buses at least 14 years old but not older than 16 years that are owned by public school districts. Subsequently, in November 2016, the Board approved an additional \$2 million from the same funding source to continue the Program. Due to high demand, the entire \$5 million has been exhausted, and there is a backlog of applications for which funding is currently unavailable.

Proposal

This action is to approve an additional \$3 million from the Carl Moyer Program AB 923 Fund (80) and authorize the execution of grant agreements to continue the replacement of onboard CNG fuel tanks for school buses at least 14 years old that are owned by public school districts. These funds will be added to the open Program Announcement #PA2012-16 to continue the ongoing program on a first-come, first-served basis.

Benefits to SCAQMD

Replacement of expired CNG tanks with new tanks would assist school districts by extending the useful life of their existing CNG buses, helping them continue to provide clean transportation for school children.

Resource Impacts

There are sufficient funds available in the Carl Moyer Program AB 923 Fund (80) to allocate an additional \$3 million to Program Announcement #PA2012-16 for onboard CNG fuel tank replacements for public school buses at least 14 years old.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 6

PROPOSAL: Amend Contracts to Continue Implementation of Enhanced Fleet Modernization Program and Transfer Funds

SYNOPSIS: In February 2017, the Board recognized an additional \$5 million from CARB to continue implementation of the Enhanced Fleet Modernization Program (EFMP). The Board also approved contracts with consulting firms to provide assistance with implementation of the EFMP including case management, outreach and vehicle emissions testing. The Program has been highly successful. Consequently, this action is to amend contracts with consulting firms in an amount not to exceed \$500,000 from the HEROS II Special Revenue Fund (56) to continue program implementation, including the addition of a new outreach strategy involving vehicle emissions monitoring in disadvantaged communities to identify high-emitting vehicles for potential voluntary replacement with cleaner, more fuel-efficient vehicles. These actions are to also transfer up to \$850,000 (comprising the above amendments and a prior \$350,000 amendment for Opus Inspection approved in February 2017) as a temporary loan from the Clean Fuels Program Fund (31) into the HEROS II Special Revenue Fund (56), until receipt of the CARB revenue.

COMMITTEE: Technology, July 21, 2017; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize the Chairman to amend contracts from the HEROS II Special Revenue Fund (56) with the following entities:
 - A. Opus Inspection: adding up to \$300,000 to conduct outreach activities, assist program participants in processing vehicle retirements and identifying replacement vehicles, transit pass or car-sharing programs, and implement a new outreach strategy for vehicle emissions monitoring in disadvantaged communities; and
 - B. Foundation for California Community Colleges: adding up to \$200,000 to conduct outreach activities and assist program participants in processing vehicle retirements and identifying replacement vehicles or transit pass or car-sharing programs; and

2. Transfer up to \$850,000 (comprising the above amendments and a prior \$350,000 amendment for Opus Inspection approved in February 2017) as a temporary loan from the Clean Fuels Program Fund (31) into the HEROS II Special Revenue Fund (56), as administration funds until receipt of the CARB revenue.

Wayne Nastri
Executive Officer

MMM:FM:VAW

Background

Since early 2015, the SCAQMD has been implementing a successful vehicle retirement and replacement program, branded by the SCAQMD as the Replace Your Ride Program. The Program was initially funded through CARB's AB 118 Air Quality Improvement Program (AQIP), then augmented using CARB's Low Carbon Transportation Greenhouse Gas Emission Reduction Fund (GGRF) to add an EFMP "Plus-Up" Program for participants living in or near disadvantaged communities.

In September 2016 and February 2017, the Board recognized a total of \$15 million from CARB's GGRF for the EFMP Plus-Up Program. The Plus-Up Program funds will be used in combination with the base EFMP incentive amount to provide up to \$9,500 to those program participants living in or near disadvantaged communities. The Board's actions in February also included executing or amending contracts with consulting firms based on a formal bid process to provide assistance with implementation of the EFMP including case management, outreach and vehicle emissions testing. The Program has been highly successful. Given the popularity of the Program coupled with the increased funding, staff anticipates the need for additional case management support, enhanced outreach in disadvantaged communities, and other program implementation activities, including adding vehicle emissions monitoring in disadvantaged communities to identify high-emitting vehicles for potential voluntary replacement with cleaner, more fuel-efficient vehicles.

Proposal

Opus Inspection has been providing case management support, including bilingual assistance, to process applications and assist consumers with each step of the voucher process, including vehicle retirements and identifying replacement vehicles or other clean mobility options. Opus Inspection will also assist with outreach efforts in addition to weekend vehicle emissions testing events. Case managers will be hired from the communities that they serve. Opus Inspection will assist SCAQMD with a new outreach strategy involving vehicle emissions monitoring in disadvantaged communities to identify high-emitting vehicles for potential participation in the EFMP Plus-Up Program. Owners of high-emitting vehicles identified through the emissions monitoring

will be sent a notice informing them about the Replace Your Ride Program. SCAQMD will evaluate this new strategy over a period of six-months or more to see if it is successful in attracting new consumers to the Program.

This action is to amend a contract with Opus Inspection adding up to \$300,000 to provide extra staffing for case management support as well as to implement a new program element involving vehicle emissions monitoring in disadvantaged communities to identify high-emitting vehicles for potential participation in the EFMP Plus-Up Program. Staff anticipates that about one-third of the funding will be dedicated to the new outreach strategy.

The Foundation for California Community Colleges (FCCC) has also been providing case management support, including bilingual assistance, to process applications and assist consumers with each step of the voucher process including vehicle retirements and identifying replacement vehicles or other clean mobility options, such as transit passes or car sharing programs. FCCC will continue to provide case management support, maintain an updated list of frequently asked questions encountered during current program implementation by call center staff and case managers, provide program informational materials for the website and events, assist with developing training materials, and deliver training courses to dealerships, dismantlers and other strategic partners. FCCC will also continue to hold sign-up and emissions testing events at community colleges and other venues, as needed, to complement the vehicle emissions testing to be performed by Opus Inspection.

This action is to amend a contract with FCCC adding up to \$200,000 for continued support with implementation of the EFMP and EFMP Plus-Up.

This action is to also transfer up to \$850,000 as a temporary loan from the Clean Fuels Program Fund (31) into the HEROS II Special Revenue Fund (56) until receipt of the CARB revenue. The \$850,000 comprises the above amendments and a prior \$350,000 amendment for Opus Inspection approved in February 2017 using anticipated CARB revenue, which has not yet been received.

Benefits to SCAQMD

The continued successful implementation of the EFMP and EFMP Plus-Up will further reduce emissions by accelerating the turnover of high-emitting vehicles with cleaner, less-polluting vehicles or alternatively provide an incentive for public transportation, car sharing and other mobility options. Incentives for program participation will continue to be provided to low- and middle-income vehicle owners to ensure that their neighborhoods will benefit from the retirement of high-emitting vehicles and the replacement with cleaner replacement vehicles or other modes of clean transportation. The EFMP Plus-Up Program will provide additional incentives for residents living in or

near disadvantaged communities, which is expected to increase program participation and provide additional emission reductions.

Resource Impacts

The Board previously recognized, upon receipt, CARB revenue up to \$15 million in the HEROS II Special Revenue Fund (56) for continued implementation of the EFMP Plus-Up Program. Up to 15 percent of these funds may be used for administrative costs (10%) and consumer outreach (5%). These contract amendments will use a portion of the administrative and outreach funds. Once this revenue is received, there will be sufficient funds available in the HEROS II Special Revenue Fund (56). Until then, up to \$850,000 from the Clean Fuels Program Fund (31) will be used as a temporary loan.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 7

PROPOSAL: Issue RFP for Legislative Representation in Sacramento, California

SYNOPSIS: The current contracts for legislative representation in Sacramento, California expire on December 31, 2017. This action is to issue an RFP for legislative consulting services for SCAQMD in Sacramento for 2018. The RFP will also indicate that the services contract(s) may be extended for up to two additional one-year terms. Total expenditures for the contract(s) shall not exceed \$350,000 for the initial one-year period.

COMMITTEE: Administrative, July 14, 2017; Recommended for Approval

RECOMMENDED ACTION:

Approve release of RFP #P2018-01 to solicit proposals for legislative representation in Sacramento, California at a cost not to exceed \$350,000 for the initial one-year period.

Wayne Nastri
Executive Officer

DJA:PC:jf

Background

A legislative presence in Sacramento is critical to advancing Governing Board (Board) policies and priorities, including the 2016 Air Quality Management Plan (AQMP), the SCAQMD legislative goals and objectives, and to continue to protect the District's authority. This effort includes providing technical information, assistance and otherwise serving as a resource to legislators and the Governor's Office regarding air quality matters; acting as a liaison between SCAQMD and legislators and the Governor's Office regarding the Board's priorities; seeking funding and program support for technology advancement and emission reduction projects, and advocating SCAQMD's position on air quality-related bills. This effort also includes fostering state support for the SCAQMD's federal initiatives which have synergy at the state level.

Much of the 2018 legislative goals and objectives for SCAQMD will depend on the outcome of the 2017 legislative session. However, many of 2017's program elements and policy priorities are expected to continue and there is a need to build upon them in the coming 2018 legislative year in Sacramento. The legislative priorities are expected to include, at minimum, the following:

- Monitor, analyze, recommend positions, testify, and negotiate on behalf of SCAQMD on legislation affecting the agency, including state budget and subvention funding.
- Increase existing and identify new funding sources for clean air programs that protect public health and ensure attainment of state and federal air quality standards, particularly incentive programs and research and development projects that support the 2016 AQMP and create opportunities to partner with local businesses, communities and residents.
- Ensure adequate SCAQMD authority for implementation of the Board's clean air policies and programs, as required by state and federal law, including the 2016 AQMP.
- Work to ensure that the state does its fair share to reduce air pollution in order for the South Coast Air Basin region to meet national ambient air quality standards, and provide legislative support to SCAQMD to implement the 2016 AQMP and attain federal ozone and particulate matter standards by upcoming federal deadlines.
- Support legislation and funding to promote environmental justice initiatives that: reduce localized health risks resulting from criteria pollutant and toxic air contaminant emissions; develop and expand access to clean air technology that directly benefits disproportionately impacted communities; and enhance community participation in decision-making.
- Seek to influence climate change initiatives and facilitate their implementation consistent with Board policy. In particular, support efforts directing that Greenhouse Gas Reduction Fund investments maximize criteria and toxics emission reduction co-benefits, promote zero and near-zero -emission vehicles, and address air quality and public health impacts.
- Support legislation that advances the Board's Energy Policy which promotes reliable, cost effective and clean energy for all consumers in the District while facilitating attainment of clean air standards and support for a healthy economy. In particular, support policies and funding that promote the development and deployment of zero and near-zero emission infrastructure, equipment and vehicles.

The legislative priorities for SCAQMD for 2018 will be further refined and presented to the Board's Legislative Committee and the full Board for approval later in the year, as determined, in part, by the outcome of events in 2017.

Proposal

SCAQMD seeks the service(s) of contractor(s) to support the Board's goals and objectives for 2018 in Sacramento. The selected firm(s) will be expected to provide a variety of services, consistent with the Board's direction. Funding for the initial year shall be up to a maximum of \$350,000. The contract(s) may include options for two annual renewals, contingent on satisfactory performance and approval of subsequent budgets, at the Board's discretion.

Bid Evaluation

Proposals received will be initially evaluated by a diverse panel of technically qualified individuals according to the criteria described in the attached RFP #P2018-01. 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, and the 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 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 on SCAQMD's website (www.aqmd.gov) where it can be viewed by making the selection "Grants & Bids."

Resource Impacts

Sufficient funds are available in the Legislative & Public Affairs FY 2017-18 Budget for the services requested. Funding for fiscal years in the future is contingent upon Board approval of the Budget.

Attachment

RFP #P2018-01 For Legislative Representation in Sacramento, California



South Coast Air Quality Management District

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT REQUEST FOR PROPOSALS REPRESENTATION IN SACRAMENTO CALIFORNIA P2018-01

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 Sacramento, California, to make certain that air quality legislation and other related issues are monitored and SCAQMD viewpoints are presented in an effective and timely manner during the legislative and policy-setting process.

The intent of this RFP is 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 California State Legislature, Governor's Office and state agencies. The consultant(s) selected pursuant to this RFP will be reimbursed on a monthly basis for services rendered at an agreed upon flat monthly fee and actual costs incurred for out-of-pocket expenses. The consultant may make use of the services of subcontractors, on an as-needed basis. A list of names of subcontractors along with their qualifications and the total hours of services expected shall be submitted with responses to this RFP. All subcontractors are subject to approval by SCAQMD and pre-approval is required before commencing any work.

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 ("Board") directions. Funding for the initial year shall be up to a maximum of **\$350,000**. The contract may include options for two, one year annual renewals, contingent on satisfactory performance and approval of subsequent budgets, upon approval of the Board.

INDEX - The following are contained in this RFP:

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Section II	Contact Person
Section III	Schedule of Events
Section IV	Participation in the Procurement Process
Section V	Statement of Work/Schedule of Deliverables
Section VI	Required Qualifications
Section VII	Proposal Submittal Requirements
Section VIII	Proposal Submission
Section IX	Proposal Evaluation/Contractor Selection Criteria
Section X	Funding
Section XI	Sample Contract
Attachment A	- Participation in the Procurement Process
Attachment B	- Certifications and Representations

SECTION I: BACKGROUND/INFORMATION

SCAQMD is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties, the smoggiest region of the U.S. As a regulatory agency, SCAQMD is committed to protect the health of residents of the four-county area from the harmful effects of air pollution, while remaining sensitive to businesses and the economic vitality of the region.

A legislative presence in Sacramento, California is critical to advancing Board policies and priorities, including the 2016 Air Quality Management Plan (AQMP), and the South Coast Air Quality Management District's legislative goals and objectives. This effort includes providing technical information, assistance and otherwise serving as a resource to legislators and the Governor's Office regarding air quality matters; acting as a liaison between SCAQMD and legislators and the Governor's Office regarding Board's priorities; seeking funding and program support for technology advancement and emission reduction projects, and advocating SCAQMD's position on air quality-related bills. This effort also includes fostering state support for the SCAQMD's federal initiatives which have synergy at the state level.

Much of the 2018 legislative goals and objectives for SCAQMD will depend on the outcome of the 2017 legislative session. However, many of 2017's program elements and policy priorities are expected to continue and for there to be a need to build upon them in the coming 2018 legislative year in Sacramento. The legislative priorities are expected to include, at minimum, the following:

- Monitor, analyze, recommend positions, testify, and negotiate on behalf of SCAQMD on legislation affecting the agency, including state budget and subvention funding.
- Increase existing and identify new funding sources for clean air programs that protect public health and ensure attainment of state and federal air quality standards, particularly incentive programs and research and development projects that support the 2016 AQMP and create opportunities to partner with local businesses, communities and residents.
- Ensure adequate SCAQMD authority for implementation of the Board's clean air policies and programs, as required by state and federal law, including the 2016 AQMP.
- Work to ensure that the state government does its fair share to reduce air pollution in order for the South Coast Air Basin region to meet national ambient air quality standards, and provides legislative support to SCAQMD to implement the 2016 AQMP and attain federal ozone and particulate matter standards by upcoming federal deadlines.
- Support legislation and funding to promote environmental justice initiatives that: reduce localized health risks resulting from criteria pollutant and toxic air contaminant emissions; develop and expand access to clean air technology that directly benefits disproportionately impacted communities; and enhance community participation in decision-making.
- Seek to influence climate change initiatives and facilitate their implementation consistent with Board policy. In particular, support efforts directing that Greenhouse Gas Reduction

Fund investments maximize criteria and toxics emission reduction co-benefits; promote near-zero and zero-emission vehicles, and address air quality and public health impacts.

- Support legislation that advances the Board’s Energy Policy which promotes reliable, cost effective and clean energy for all consumers in the South Coast Air Basin while facilitating attainment of clean air standards and support for a healthy economy. In particular, support policies and funding that promote the development and deployment of zero and near-zero emission infrastructure, equipment and vehicles.

The legislative priorities for SCAQMD for 2018 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 2017.

SECTION II: CONTACT PERSON:

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

Philip Crabbe
 Legislative, Public Affairs and Media
 SCAQMD
 21865 Copley Drive
 Diamond Bar, CA 91765-4178
 (909) 396-2632

SECTION III: SCHEDULE OF EVENTS

Date	Event
September 1, 2017	RFP Released
October 18, 2017	Proposals Due to SCAQMD - No Later Than 1:00 pm
October 18 – 27, 2017	Proposal Evaluations
November 9, 2017 (tentative date)	Legislative Committee Approval/Interviews, if required
December 1, 2017	Governing Board Approval
December 2017	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 Executive Officer or Deputy Executive Officer of Legislative, Public Affairs and Media, and in coordination with SCAQMD legislative staff, the consultant(s) shall gather information, provide advice and assistance, and/or advocate positions on legislation in Sacramento as it directly pertains to the ability of the SCAQMD to carry out its statutory responsibilities. The selected Consultant(s) will perform the services listed below on legislative/regulatory matters; however, the responsibilities of the selected Consultant(s) under the contract pursuant to this RFP are not necessarily limited to items listed since there may be other legislative needs that may arise during the course of the legislative process.

1. A written strategic and tactical implementation plan for 2018;
2. Drafting, and or assisting SCAQMD staff, consultants, or other parties in drafting, legislation and other policies and procedures as requested by SCAQMD and coordinating or assisting in their introduction;
3. Reviewing, identifying, tracking, and monitoring both the actions of the administration and related state agencies as well as the California Legislature for legislation and other proposals potentially affecting air quality and SCAQMD's operations, authority, and funding;
4. Advocating as directed by SCAQMD, on all identified and/or drafted legislation and administrative and other proposals, providing testimony at committee and other special hearings, and providing written communications to legislators, key administrative officials, and other staff regarding such bills;
5. Negotiating bill language, policies or other state agency provisions related to air quality issues;
6. Assist in the integration of state legislative agenda with SCAQMD's federal legislative agenda and local efforts;
7. Planning for, and handling unforeseen emergency situations involving legislative staff or legislation, at the direction of SCAQMD;
8. Producing materials destined for strategic distribution or inclusion in Legislative Committee/Board proceedings;
9. Providing regular reports on the status of all legislative and administrative activities in which interest is expressed by SCAQMD or that affect SCAQMD;
10. Identifying the administration's upcoming environmental legislative agenda and providing work plans, analysis, and consultation on strategies to align efforts to secure support for SCAQMD proposals;
11. Securing support of SCAQMD's mission and positions by the decision-makers in the legislative and administrative bodies of the State of California, including the Governor's Office;
12. Gathering information and scheduling appointments on behalf of SCAQMD with key legislators and administration members and appointees;
13. Attending and participating in meetings exclusively on behalf of SCAQMD with legislative representatives and administration members and appointees;
14. Preparing all reports and filings in the matter and form required of SCAQMD pursuant to the Political Reform Act of 1974, as amended and assisting SCAQMD in filing such reports. The contractor will promptly furnish to SCAQMD a copy of all reports

filed with any governmental agency concerning its lobbying activities on behalf of SCAQMD.

*A copy of the 2017 SCAQMD's Governing Board Legislative Goals and Objectives is herein incorporated as reference as Attachment C.

B. Schedule of Deliverables

1. Preparation of a Strategic Plan for the upcoming legislative year by no later than February 9, 2018, maximizing SCAQMD Board and staff participation and involvement in the legislative process;
2. Written drafts of legislative/administrative proposals as requested by SCAQMD. Such drafts are to be submitted for review by SCAQMD prior to being released;
3. Written status of administrative actions pertaining to air quality-related issues of SCAQMD's programs for carrying out its legislative mandates. Such reports are to summarize each proposal/action and its potential impacts, recommend an SCAQMD position as appropriate, and identify any upcoming meetings or hearings to discuss the proposal;
4. Participation in the monthly SCAQMD Legislative Committee meetings, upon SCAQMD staff request, to provide updates and presentations on relevant legislative and administrative issues and legislation recommended for SCAQMD position;
5. Written communications to legislators and key administrative officials conveying SCAQMD positions on various bills and administrative actions.
6. Following adjournment of the legislative session, a year-end report delineating and summarizing the final status/disposition of relevant administrative actions;
7. Legislative/administrative activities and legislative program planning documents and calendars as requested;
8. May include a "Capitol Briefing" or "Clean Air Legislative Action Day" or similar event(s) during the contract period to help establish an ongoing presence in the Capitol to garner support for the agency's mission and maintain the agency's presence as a resource to the Legislature and the Governor's Office;
9. A weekly written report covering pertinent legislative activities during the legislative session, written quarterly reports, a year-end report, and a year-end presentation delineating and summarizing relevant administrative and legislative actions;
10. A monthly written report to accompany invoice outlining contractor's specific activities;
11. An original signed confidentially agreement; and,
12. Maintaining permanent 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 this ability in cases involving as many as possible of the following areas: legislative representation, SCAQMD Rules and Regulations, air quality law, and other environmental issues.

B. Proposer must submit the following:

1. Resumes or similar statement of qualifications of person or persons who may be designated as the principal and other support and subcontractor qualification demonstrating the ability to represent SCAQMD before the California State Legislature, the Governor's Office and state agencies.
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 attorney.

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 1:00 p.m., October 18, 2017, 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 P2018-01."

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	<u>30</u>
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
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.

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 III. 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 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.

The Procurement Section will be responsible for monitoring compliance of suppliers awarded purchase orders based upon use of low-emission vehicles or off-peak traffic hour delivery commitments through the use of vendor logs which will identify the contractor awarded the incentive. The purchase order shall incorporate terms which obligate the supplier to deliver materials in low-emission vehicles or deliver during off-peak traffic hours. The Receiving department will monitor those qualified supplier deliveries to ensure compliance to the purchase order requirements. Suppliers in non-compliance will be subject to a two percent of total purchase order value penalty. The Procurement Manager will adjudicate any disputes regarding either low-emission vehicle or off-peak hour deliveries.

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.

SECTION X: FUNDING

The total funding for the work contemplated by this RFP will be a maximum \$350,000 for the base year with an option to renew the contract for a second year provided funding is approved in subsequent year budgets.

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 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.

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PARTICIPATION IN THE PROCUREMENT PROCESS

- 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.
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.

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PARTICIPATION IN THE PROCUREMENT PROCESS

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

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PARTICIPATION IN THE PROCUREMENT PROCESS

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.

ATTACHMENT A

PARTICIPATION IN THE PROCUREMENT 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.
- 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

PARTICIPATION IN THE PROCUREMENT PROCESS



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,

Michael B. O'Kelly
Chief Administrative Officer

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

REV 2/17



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 <i>Check One:</i>	<input type="checkbox"/> Individual <input type="checkbox"/> DBA, Name _____, County Filed in _____ <input type="checkbox"/> Corporation, ID No. _____ <input type="checkbox"/> LLC/LLP, ID No. _____ <input type="checkbox"/> 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:

- | | |
|---|--|
| <input type="checkbox"/> Small Business Enterprise/Small Business Joint Venture | <input type="checkbox"/> Women-owned Business Enterprise |
| <input type="checkbox"/> Local business | <input type="checkbox"/> Disabled Veteran-owned Business Enterprise/DVBE Joint Venture |
| <input type="checkbox"/> Minority-owned Business Enterprise | <input type="checkbox"/> 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.

Request for Taxpayer Identification Number and Certification

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

Print or type See Specific Instructions on page 2.	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; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> 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) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
	5 Address (number, street, and apt. or suite no.)	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 Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> on page 3.																																																			
Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="10" style="text-align: center;">Social security number</td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> <tr> <td colspan="10" style="text-align: center;">or</td> </tr> <tr> <td colspan="10" style="text-align: center;">Employer identification number</td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>	Social security number																				or										Employer identification number																			
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 on page 3.	

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

General Instructions

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

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

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? on page 2.

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?* on page 2 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 Publication 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 Part II instructions on page 3 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* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

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* on page 3 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, list first, and then circle, the name of the person or entity whose number you entered in Part I of 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 in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in 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.

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. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), 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 the chart on page 4 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. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

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 items 1, 4, or 5 below indicate 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), 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)	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor ²
4. 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
5. Sole proprietorship or disregarded entity owned by an individual	The actual owner ¹
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The owner ²
	The grantor ¹
For this type of account:	Give name and EIN of:
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity ¹
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. 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
14. 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* on page 2.
***Note.** 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 Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system 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 contact them at www.ftc.gov/idtheft or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov 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.

2017 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 and search for **privacy notice**. 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 _____

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 888.745.3888.

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

STEP 1: Please check all the appropriate boxes

- | | |
|--|--|
| <input type="checkbox"/> Individual (Employee, Governing Board Member) | <input type="checkbox"/> New Request |
| <input type="checkbox"/> Vendor/Contractor | <input type="checkbox"/> Cancel Direct Deposit |
| <input type="checkbox"/> Changed Information | |

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

- 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.
- This authorization remains in effect until SCAQMD receives written notification of changes or cancellation from you.
- 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)				
	<input type="checkbox"/> Saving <input type="checkbox"/> Checking		Account Number	Routing Number	
	Bank Representative Printed Name		Bank Representative Signature		Date
	ACCOUNT HOLDER SIGNATURE:				Date

For SCAQMD Use Only

Input By _____

Date _____

ATTACHMENT C

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

SCAQMD's State Legislative Goals & Objectives for 2017

The following goals and objectives are identified to facilitate attainment of clean air standards within the South Coast region by statutory deadlines, while working with and serving as a resource to Sacramento legislators; federal, state, and local agencies; business, environmental and community groups; and other stakeholders:

Air Quality Funding

Increase existing and identify new funding sources for clean air programs that protect public health and ensure attainment of state and federal air quality standards, particularly incentive programs and research and development projects that support the 2016 Air Quality Management Plan (AQMP) and create opportunities to partner with local businesses, communities and residents.

SCAQMD Authority / Policy Implementation

Ensure adequate SCAQMD authority for implementation of the Board's clean air policies and programs, as required by state and federal law, including the 2016 AQMP.

State Support

Work to ensure that the state government does its fair share to reduce air pollution in order for the South Coast Air Basin region to meet national ambient air quality standards, and provides legislative support to SCAQMD to implement the 2016 AQMP and attain federal ozone and particulate matter standards by upcoming federal deadlines.

Environmental Justice

Support legislation and funding to promote environmental justice initiatives that: reduce localized health risks resulting from criteria pollutant and toxic air contaminant emissions, develop and expand access to clean air technology that directly benefits disproportionately impacted communities, and enhance community participation in decision-making.

Climate Change

Seek to influence climate change initiatives and facilitate their implementation consistent with Board policy. In particular, support efforts directing that Greenhouse Gas Reduction Fund investments maximize criteria and toxics emission reduction co-benefits, promote near-zero and zero-emission vehicles, and address air quality and public health impacts.

Clean Energy

Support legislation that advances the Board's Energy Policy which promotes reliable, cost effective and clean energy for all consumers in the District while facilitating attainment of clean air standards and support for a healthy economy. In particular, support policies and funding that promote the development and deployment of zero and near-zero emission infrastructure, equipment and vehicles.

Business/Jobs Climate

Support legislation, policies and/or administrative actions that protect and encourage job retention and creation and promote economic growth, while working toward attainment of clean air standards;

and that support and assist the regulated community in complying with rules and regulations in the most efficient and cost-effective manner.

Surface Transportation & Goods Movement

Support and expand air quality policy and funding considerations regarding the implementation of state and federal surface transportation and goods movement policies and programs, including those relating to the FAST Act.

Salton Sea

In conjunction with the Imperial County Air Pollution Control District and other stakeholders, work on legislation mitigating the Salton Sea's potential for increased emissions as well as its potential to generate renewable energy.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 8

PROPOSAL: Execute Contract for Insurance Brokerage Services

SYNOPSIS: The current contract for insurance brokerage services expires September 30, 2017. On May 5, 2017, the Board approved release of an RFP to solicit proposals from firms interested in providing these services for the next three-year period. This action is to execute a contract with Alliant Insurance Services, Inc. from October 1, 2017 through September 30, 2020 for an amount not to exceed \$149,960 for the three-year period. Funding for the first year of this contract has been included in the FY 2017-18 Budget, and will be requested in successive fiscal years for subsequent annual payments.

COMMITTEE: Administrative, July 14, 2017; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a three-year contract with Alliant Insurance Services, Inc. to perform insurance brokerage services for the period from October 1, 2017 through September 30, 2020, for a total amount not to exceed \$149,960.

Wayne Natri
Executive Officer

MO:AJO:GT:LM

Background

SCAQMD currently contracts with Alliant Insurance Services, Inc. to provide insurance brokerage services. These services include marketing SCAQMD's property and liability insurance needs and representing SCAQMD's interest in the negotiation and placement of various insurance instruments for loss exposures. Brokerage services also include data collection and analysis of properties subject to loss and their values (property valuation), preparation of insurance proposal submissions, and the development of strategies for obtaining cost-effective coverage based on existing market conditions.

The current contract expires September 30, 2017. On May 5, 2017, the Board approved release of RFP #P2017-14 to solicit proposals from insurance brokerage firms interested in providing these services for the next three-year period.

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 may have been notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFP has been 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>).

Proposal Evaluation

A total of fourteen copies of the RFP were mailed to insurance brokerage firms. There were two proposals received by the submittal deadline of 3:00 p.m. on Wednesday, June 7, 2017. The panel scored the two proposals based on criteria set forth in the RFP, which included firms' understanding of the scope of work, technical insurance brokerage expertise, relevant public-sector experience, and cost.

The panel evaluating the proposals included a Senior Deputy District Counsel, the Acting Risk Manager, and the Business Services Manager. Of these, two are Caucasian and one is Hispanic; one is male and two are female. The evaluation results are as follows:

Bidder	3-Year Cost	Cost Points	Technical Points	Additional Points	Total Points
Alliant Insurance Services, Inc.	\$149,960	23	69	5	97
Epic Insurance Brokers & Consultants	\$120,000	30	55	2	87

Alliant Insurance Services, Inc. received the panel's higher rating. The firm submitted the higher-rated qualified bid, which included excellent references for comparable public sectors. The firm demonstrated expertise in obtaining advantageous insurance coverage from national and international insurers at cost-effective rates based on current market conditions, which would result in cost savings to SCAQMD. As part of Alliant's proposal, they also included 50 hours per contract year of professional loss control and/or personal property valuation service.

Resource Impacts

Funds for insurance premiums are included in SCAQMD's budget each fiscal year under the District General – Insurance account. Funding of \$49,000 is available in the FY 2017-18 Budget for the first year of the contract; funding of \$49,980 and \$50,980 for the second and third years, respectively, will be requested in successive budget years. The total contract amount will not exceed \$149,960 for the three-year period.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 9

PROPOSAL: Approve Position Reclassifications in Information Management and Compliance & Enforcement

SYNOPSIS: The Technical & Enforcement and Office, Clerical and Maintenance MOU provides for employee-initiated classification studies, as well as determinations by management to reclassify employees. An outside consultant, Koff & Associates, has completed evaluations of requests for classification studies, for positions in Information Management and Compliance & Enforcement. Based on the analysis of the studies, and in consultation with union representatives for the bargaining units, staff recommends Board approval for the following reclassifications: positions in the Computer Operator and Telecommunications series in Information Management, and one Office Assistant in Compliance & Enforcement. This action will result in an annual cost increase of approximately \$155,292. Sufficient funding for this annual cost increase exists in the FY 2017-18 Budget. This action is also to amend the Salary Resolution for a Director of Communications position, which was previously approved by the Board.

COMMITTEE: Administrative, July 14, 2017; Recommended for Approval

RECOMMENDED ACTIONS:

- 1) Approve 5 new class specifications to be assigned in the Information Management unit, delete 8 existing class specifications in the Computer Operator and Telecommunications class series, and allocate existing positions to the new class series, as set forth in Table A;
- 2) Reclassify one Office Assistant position in Compliance & Enforcement to a Staff Assistant position;
- 3) Amend Sections 53 and 54 of the Salary Resolution to establish the salaries for the new class specifications and to delete existing class specifications, as set forth in Exhibit B; and
- 4) Amend the Salary Resolution for a Director of Communications position, which was previously approved by the Board.

Wayne Nastri
Executive Officer

Background

In March 2016, the Board approved the reclassification of a Computer Operator position in the Information Management division to an Assistant Telecommunication Technician position. These job descriptions were established in 1989 and 1999, respectively. Similarly, other job functions in these highly technical class specifications were written before the interim advances in computing, networking, and communications. Therefore, a reclassification study of all the positions in the Computer Operator class series and Telecommunications Technician class series was initiated last year, conducted by an outside consultant, Koff & Associates. The purpose of the study was to evaluate the current technology and methods used by Information Management staff, and to revise the job descriptions to meet existing and future needs in those positions. In addition, the study included a survey of similar positions and functions in other jurisdictions to ensure that SCAQMD can continue to recruit and retain the highest quality employees for Information Management. The reclassification study has been completed. The proposed reclassifications, and the impacts on incumbent employees, have been discussed, and agreed upon, with representatives of the bargaining unit.

The reclassification study of the Office Assistant in Compliance & Enforcement followed the process in Article 45 of the Teamsters MOU, providing an employee the opportunity to request reclassification if the employee believes that they are performing duties outside of their current class specification. Koff & Associates conducted a study of the employee's duties, through questionnaires, interviews, and consultation with supervisors and managers. The reclassification study found that the job duties, as determined by the function of the organizational unit, of this specific Office Assistant were more consistent with the class specification for Staff Assistant. The proposed reclassification has been discussed, and agreed upon, with representatives of the bargaining unit.

In the 2017-18 budget, the Board added a new Director of Communications position, to be assigned in the Legislative, Public Affairs & Media Office. An amendment to the Salary Resolution is necessary to identify the salary for the new position.

Proposal

Based on the reclassification study by Koff & Associates, and in consultation with union representatives, staff recommends the approval of the Information Technology Specialist class series. These new class specifications will merge and update the existing Computer Operator and Telecommunications Technician class series. SCAQMD's current information and communications infrastructure, and the work of the Information Management unit, have expanded beyond the use of "general purpose computers" and radio and telephone communications systems. The new Information Technology Specialist class specifications also take into account the need for knowledge and experience dealing with data servers, networking systems, software applications, and multiple media for communications. The merging of class series also allows for more cross-training and flexible assignments for staff. In terms of the salaries for the new class specifications, they were matched with existing Information Management salary

schedules, based on the level of technical expertise required. The Information Technology Specialist class specifications and salary will be a benefit in the recruitment and retention of these positions. New class specifications for the Information Technology Specialist class series are being proposed, as provided in Exhibit A. Proposed amendments to the Salary Resolution complement this action by establishing the salaries and bargaining unit for the new positions, and deleting existing class specifications. (Existing class specifications are available on the SCAQMD website.) Positions in the existing class specifications will be re-allocated to the new class specifications, in accordance with the Koff & Associates study, as set forth in Table A.

An Office Assistant position in the Compliance & Enforcement unit has significant duties relating to the administration of the Portable Equipment Registration Program (PERP), providing assistance to Compliance staff. The reclassification study found that these duties were distinguished from the clerical class series, due to the necessity to evaluate information and apply/modify work processes. It was also determined that there was no lead worker or supervisory functions involved. Therefore, a reclassification of an Office Assistant position to a Staff Assistant position is being proposed.

In the 2017-18 budget, a Director of Communications position with a base salary of \$153,218 was added. The Salary Resolution is also proposed to be amended to reflect this previously approved change to the Designated Deputy classifications.

Resource Impacts

Table A provides the proposed salaries for the new class specifications, in comparison to existing class specifications. The net increase for the reclassification in the Information Management unit is \$142,884, which includes the full costs for 13 budgeted positions. The reclassification of the Office Assistant position (Position No. 0449) to the Staff Assistant position in Compliance & Enforcement will add \$12,408. Sufficient funding exists in the FY 2017-18 Budget, due to vacancy rate savings, and ongoing costs will be included in future year budgets. The Director of Communications position was approved as part of the FY 2017-18 budget.

Attachments

Table A – Information Management Reclassification and Salary Recommendations

Exhibit A – Proposed New Class Specifications

Exhibit B – Proposed Amendments to the Salary Resolution

Table A

INFORMATION MANAGEMENT

RECLASSIFICATION AND SALARY RECOMMENDATIONS

Current Title ¹ [Position numbers]	Current Salary Range	Current Salary Code	Current Unit	Proposed Title ² [Position numbers]	Proposed Salary Range	Proposed Salary Code	Proposed Unit
Telecommunications Supervisor [0264, 1343]	\$7,464.45 - \$9,075.56	14	Conf.	Information Technology Supervisor [0264, 1343]	\$7,464.45 - \$9,075.56	14	T&E
Computer Operations Supervisor [0262]	\$4,366.43 - \$5,411.11	39L	T&E	Information Technology Supervisor [0262]	\$7,464.45 - \$9,075.56	14	T&E
Telecommunications Analyst [unbudgeted]	\$6,661.39 - \$8,250.06	13	Conf.	DELETE	-	-	-
Telecommunications Technician II [0175, 0258, 0260, 0275]	\$5,401.23 - \$6,690.41	47H	T&E	Senior Information Technology Specialist [0175, 0258, 0260, 0275]	\$6,273.04 - \$7,772.14	53B ³	T&E
Telecommunications Technician I [0644]	\$5,060.41 - \$6,268.10	45D	T&E	Information Technology Specialist II [0644]	\$5,060.41 - \$6,268.10	45D	T&E
Audio-Visual Specialist [1142]	\$4,850.49 - \$6,008.78	43J	T&E	Information Technology Specialist II [1142]	\$5,060.41 - \$6,268.10	45D	T&E
Assistant Telecommunications Technician [0994]	\$4,136.74 - \$5,124.62	37L	T&E	Information Technology Specialist I [0263, 0994] ⁴	\$4,136.75 - \$5,124.63	37L	T&E
Computer Operator [0261, 0263, 0265]	\$3,887.31 - \$4,815.91	35H	T&E	Assistant Information Technology Specialist [0261, 0265]	\$3,887.31 - \$4,815.91	35H	T&E

Conf. – Confidential unit; T&E – Technical & Enforcement bargaining unit

Notes:

- (1) Proposed titles to be deleted from SCAQMD's classification plan, with existing positions
- (2) Proposed titles to be added to SCAQMD's classification plan, with re-allocated positions
- (3) Aligns with Programmer Analyst salary code
- (4) Position No. 0263 is a Computer Operator being reclassified to the Specialist I position, per the study

EXHIBIT A

PROPOSED NEW CLASS SPECIFICATIONS

1. Information Technology Supervisor
2. Senior Information Technology Specialist
3. Information Technology Specialist I/II
4. Assistant Information Technology Specialist



SEPTEMBER 2017
FLSA: NON-EXEMPT

INFORMATION TECHNOLOGY SUPERVISOR

DEFINITION

Under general direction, supervises, assigns, reviews, and participates in the work of staff responsible for the analysis, evaluation, enhancement, development, design, programming, testing, implementation, documentation, and maintenance of a variety of information technology systems and programs for the District; ensures work quality and adherence to established policies and procedures; performs the most technical and complex tasks relative to assigned area of responsibility; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from assigned supervisory or management personnel. Exercises direct and general supervision over assigned professional and technical information technology staff.

CLASS CHARACTERISTICS

This is the full supervisory-level class in the Information Technology division that exercises independent judgment on diverse and specialized information technology functions and has significant accountability and ongoing decision-making responsibilities associated with the work. The incumbent organizes and oversees day-to-day information technology administration activities, projects, and programs for a major section within the division and is responsible for providing professional-level support to the Systems and Programming Supervisor and Technology Implementation Manager in a variety of areas. This class is distinguished from the Systems and Programming Supervisor in that the latter has full management and supervisory authority in planning, organizing, and directing the full scope of information technology operations within the division.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

- Plans, prioritizes, assigns, supervises, reviews, and participates in the work of staff responsible for the analysis, evaluation, enhancement, development, design, programming, testing, implementation, documentation, and maintenance of the data and voice communications systems for the District.
- Establishes schedules and methods for providing information systems services; identifies resource needs; reviews needs with appropriate management staff; allocates resources accordingly.
- Participates in the development of policies and procedures; monitors work activities to ensure compliance with established policies and procedures; makes recommendations for changes and improvements to existing standards and procedures.
- Supervises the programming of committee meeting webcasting and webconferencing.
- Recommends and assists in the implementation of goals and objectives; implements approved policies and procedures.
- Participates in the selection of information technology staff; provides or coordinates staff training; works with employees to correct deficiencies; implements discipline procedures.

- Participates in the preparation and administration of the information technology program budget; submits budget recommendations; monitors expenditures.
- Participates in developing and administering security strategy, policies, and procedures for network availability, security, and related services; ensures compliance with District standards.
- Oversees and participates in performing comprehensive systems analysis to design and develop new systems and enhancements to current systems; consults, confers, and coordinates activities with users, staff from various departments, outside agencies, and vendors to resolve program, system, operational, and procedural problems; analyzes problems and recommends corrective action.
- Prepares analytical and statistical reports on operations and activities.
- Project management.
- Prepares feasibility studies.
- Prepares system improvement recommendations with the associated plan and implementation.
- Prepares RFP and RFQ.
- Attends and participates in professional group meetings; stays abreast of new trends and innovations in the field of information technology.
- Performs other duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

- Principles, practices, and methods of administering and coordinating a comprehensive information systems and telecommunications program.
- Principles and practices of budget development, administration, and accountability.
- Organizational and management practices as applied to the analysis and evaluation of programs, policies, and operational needs.
- Information technology systems and database management, including hardware equipment, software applications, security systems, computer networks, telecommunications, and other electronic office automation systems.
- Principles and practices of information technology and telecommunications systems analysis and design.
- Network and server infrastructure, storage, and security design, analysis, installation, and management methods and techniques.
- Fundamental understanding of network, security and internet concepts (firewalls, traffic filtering, load balances, web browsers, TCP/IP, SSL, and HTTP).
- Fundamental understanding of cloud base computing and server, storage, and network virtualizations.
- SAN products and technologies.
- Audio and Visual products and technologies for local and remote conference centers.
- Wired and Wireless LAN and WAN technologies with multi-media contents.
- Microsoft Windows Client and Servers software technologies.
- Principles and practices of project management, identifying technology needs and issues, researching and evaluating technology, applications, and the most effective courses of action, and implementing solutions.
- Variety of HP storage systems, Windows Operating Systems; Linux Operating Systems; Cisco Communications systems; Cisco routers/switches set-up and configuration for VoIP connectivity.
- Web and video conferencing coordination, configuration, set-up, operation, and support.
- Industry standards for the backup and recovery of network and server infrastructure and data.
- Recent and on-going developments, current literature, and sources of information related to information systems, cloud based computing, and telecommunications programs.

- Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Research techniques, methods, and procedures and technical report writing practices and procedures.
- Modern office practices and methods.
- Principles and procedures of record keeping and reporting.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Plan, organize, schedule, assign, review, and evaluate the work of and train staff.
- Recommend and implement goals, objectives, and practices for providing effective and efficient services.
- Evaluate and recommend improvements in operations, procedures, policies, or methods.
- Analyze department procedures and data to develop logical solutions to complex systems problems.
- Recommend, evaluate, design, develop, test and install complex operating systems, applications and supporting hardware and software.
- Provide advanced-level technical support for the implementation and maintenance of Information Technologies and telecommunications systems.
- Provide account management, billing support and administration related to mobility carriers and devices.
- Coordinate, direct, and implement a comprehensive information systems program suited to meet the needs of the District.
- Operate, install, maintain, configure, and troubleshoot a variety of highly technical telecommunications equipment including mobile devices, e-mail, VPN, and WiFi configurations.
- Perform specialized and technical support functions in the design, analysis, engineering, implementation, and management of telecommunications systems, storage, and security.
- Perform analyses of network and server requirements and needs; identify, evaluate, and solve systems problems; design and implement new or revised systems and procedures; provide technical advice and consultation, and ensure efficient network and server system utilization.
- Participate in design sessions and process improvement sessions to identify business and user needs and discuss network and server capabilities and modifications needed for improvement.
- Interpret, apply, and explain applicable Federal, State, and local policies, procedures, laws and regulations.
- Establish and maintain a variety of filing, record keeping, and tracking systems.
- Prepare clear and concise reports, correspondence, policies, procedures, and other written materials.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Stay abreast of new trends and innovations in the field of information technologies, telecommunications and audio-visual systems.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of the following education and experience may demonstrate the required knowledge, skills, and abilities for the position:

A Bachelor's degree from an accredited college or university with major coursework in information systems, computer science, or a related field; or five (5) years of increasingly responsible information technology experience including two years of lead or project management responsibility.

Licenses and Certifications:

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer and to operate a motor vehicle and visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. Standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification frequently bend, stoop, kneel, and reach to perform repetitive movements of hands or wrists, as well as push and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 50 pounds with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.



SEPTEMBER 2017
FLSA: NON-EXEMPT

SENIOR INFORMATION TECHNOLOGY SPECIALIST

DEFINITION

Under general supervision and depending on assignment, performs a variety of highly skilled technical duties involved in the configuration, installation and maintenance of the District's Network, Clients, Servers, Software, Telecommunications Systems, AV system and IT Infrastructure; identifies end user requirements; evaluates and tests new and existing system and infrastructure capabilities, and recommends upgrades and enhancement; performs systems administration and monitoring, troubleshoots and analyzes problems, and ensures data integrity; provides technical document and procedure manual; works with multiple discipline technology groups; acts in a lead capacity; trains and assists end users and technical staff in using new and existing applications and systems; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from assigned supervisory or management personnel. Provides lead work direction to Information Technology Specialist I/II and Assistant Information Technology Specialist as assigned.

CLASS CHARACTERISTICS

This is the advanced journey-level class in the Information Technology Specialist classification series. Employees at this level require demonstrated ability to perform advanced work and are highly responsible for supporting various Information Technology functions within the department. Employees at this level are distinguished from the Information Technology Specialist I and II classes by their ability to lead teams, manage projects, and find technology solutions. Employees have both the technical skills and leadership qualities to mentor and lead group projects. This classification is distinguished from the Information Technology Supervisor in that the latter serves as the full supervisory level in this series.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

- Performs full range of repair and maintenance of departmental and District-wide enterprise software application(s); documents end user work processes and systems requirements; conducts systems walk-throughs and technical reviews; develops or refines system specifications, including evaluating and testing vendor software packages for conformance with user requirements and priorities.
- Installs, configures, tests, maintains, troubleshoots, and monitors physical and virtual network and server infrastructure including hardware, software, real-time monitoring tools, peripherals, and devices ensuring effective performance and proper integration of components and systems with existing architecture; assists in infrastructure changes and upgrades to limit interrupted services.
- Administers automated deployment of software and updates over the network.
- Monitors and maintains security control of District network and server infrastructure; configures and monitors security features and firewall rules; verifies and ensures proper user accessibility; identifies and addresses vulnerabilities; researches, recommends, and applies security updates as needed.
- Plans, manages, and maintains all components of the local area and wide area networks.
- Plans, designs and tests the implementation of network infrastructure including hardware and software recommendations.
- Oversees technical support and help functions that relate to networks, redundancy and connectivity.

- Researches, determines, defines, proposes, and itemizes costs for changes and upgrades to network infrastructure, operating systems, and applications to ensure continuous operations, desired performance, and services.
- Performs system and software backup and recovery and systems monitoring.
- Manages and monitors usage of the Information Technology resources including the network, servers, clients and software.
- Researches hardware and software products to meet technical networking and/or security needs.
- Ensures database security by preparing access and control policies and procedures and reviewing permissions on a regular basis.
- Provides assistance to information system for network security by monitoring, installing software updates and staying abreast of security technology trends and innovations.
- Web and video conferencing coordination, configuration, set-up, operation, and support.
- Installs, configures, tests, maintains, troubleshoots, and monitors District-wide telecommunications systems including voice and data communications infrastructure and equipment; sets up and maintains user accounts, access groups, extensions, and voicemail boxes; troubleshoots system-wide outages.
- Prepares and maintains system documentation required for telecommunications networks, including the updating of building/floor blueprints, network data base, procedures manual, and Private Area Branch Exchange configuration.
- Operates telecommunications network management consoles and monitors network performance; diagnoses network malfunctions and takes corrective action; assesses network performance and allocates resources, as needed.
- Assists in evaluating telecommunications system design and capabilities, and recommends cost-effective designs and equipment alternatives to enhance the communications network.
- Implements telecommunications modifications and the relocation of equipment; lays out hardware configurations; determines wiring specifications for cables; maintains telephone data lease lines and interfaces to ensure uninterrupted data communications service; uses testing equipment to identify and correct system malfunctions.
- Prepares reports on telecommunications system performance, breakdowns, relocations, usage, and problems; maintains inventory of data communication hardware and equipment; assists users with telephone, computer hardware, data network capabilities and system specifications; assists in training users on hardware and communication system functions.
- Operates telecommunications network management consoles and monitors network performance; diagnoses network malfunctions and takes corrective action; assesses network performance and allocates resources, as required.
- Assists in conducting special studies and projects involving communications systems; conducts system tests and verification of system controls; evaluates telecommunications equipment; confers with vendors regarding equipment applications; recommends the purchase of new or replacement communications equipment and devices.
- Performs on-line video and voice recordings of the District's monthly Board meetings, contracted City meetings, and other meetings as needed.
- Operates the audio mixer, video cameras, audio recorders, video recorders, teleconferencing system, and duplicating rack, as required, to provide special effects, sound, and pictures of high technical quality. Provides feeds to various monitors throughout the District, local cable network, and various broadcasting stations.
- Coordinates the activities of District staff assigned to operate related audio-visual equipment, controlling equipment through the video-switcher, to correct problems in picture and sound.
- Trains District staff in the use of video production equipment.
- Sets up, adjusts, and diagnoses problems in broadcast-quality video production equipment, and makes minor emergency repairs by using test instruments, diagnostic routines, and electronic tools to prepare equipment for immediate use.

- Sets up and operates audio-visual equipment such as laptops, projectors, and web conferencing software. Operates the video-switcher to coordinate the equipment according to instructions.
- May coordinate and assist with outside audio and video vendors to provide audio and/or video systems to meet deadlines.
- Conducts special studies and projects involving administration, and organizational management analysis related to telecommunications systems; prepares and presents recommendations and reports on system use, user requests, and system designs and procedures.
- Conducts system analyses and prepares flow charts related to the data and voice communications systems Districtwide; prepares documents describing the Local and Wide Area Network, as well as the functions within a particular division.
- Provides information to users requesting technical data concerning the use of telecommunications systems; assists users with telecommunications system and recommends solutions to system problems, as necessary.
- Assists and consults on the installation of District telecommunications equipment; facilitates the maintenance of quality service to District users during installation.
- Evaluates, selects and implements the installation and testing of new computer hardware, software and telecommunications equipment and recommends the purchase of data and voice telecommunications equipment; confers with vendors regarding equipment and current systems.
- Analyzes current systems and develops short- and long-range goals for system development and implementation. Designs, plans, tests and implements new telecommunications systems, multi-user systems, desktop environments, networks and upgrades to meet District and user requirements and needs.
- Administers network, file servers, web servers, multi-user systems, PBX, voicemail, e-mail, and relational database management systems.
- Participates in network planning, implementation, and special projects.
- Maintains information on scheduled systems maintenance, including upgrades and outages; informs customers as needed.
- Responds to and resolves users' inquiries and complaints and escalates problems or issues to vendor representatives as needed.
- Provides lead direction, scheduling, training and work review to staff at the I/II level; organizes and assigns work, sets priorities and follows up as required to ensure the completion of production work schedules.
- May assign and monitor staff assignments and special projects; schedules and monitors overtime and standby assignments.
- Assists in developing goals, objectives, policies, procedures, work standards, and administrative control systems for the department to which assigned.
- Writes and maintains user and technical operating instructions and documentation; prepares training materials and conducts formal and informal training programs and advises on best practices.
- Maintains accurate records and files; develops storage of records and retention schedules.
- Researches, configures and tests new and current Information Technologies Systems.
- Performs other duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

- Considerable knowledge of the principles and practices of installing, configuring, maintaining, troubleshooting, and monitoring application, network, server, and telecommunications systems and infrastructure.

- Considerable knowledge of the principles and practices used in the installation, evaluation, configuration, operation, troubleshooting, and maintenance of computer hardware, software, and other related technologies and equipment.
- Techniques and methods of writing and maintaining user and technical operating instructions and documentation.
- Linux and Windows server administration and support, including applying patches, installations, and upgrades.
- Database administration including MS SQL, Oracle and Ingres.
- Cisco technologies including voice and data.
- Cisco IOS command lines.
- Cisco ASA Firewall
- Operational characteristics of local, wireless, and wide area network systems.
- Operational characteristics of a variety of communication equipment and devices.
- Computer logic and mathematics.
- Computer scripting languages.
- Principle languages used in information systems programs.
- SAN products and technologies.
- Audio and Visual products and technologies for local and remote conference centers.
- Wired and Wireless LAN and WAN technologies.
- Principles of electricity, electronics and computer hardware/software design as they relate to installation and maintenance of voice communications systems, facilities and equipment.
- Components and equipment used in telecommunication systems.
- Methods of telecommunication system design and implementation.
- Test equipment, tools and materials used in installation, troubleshooting, maintenance and repair of voice communication systems.
- Common sources of trouble in and methods of servicing and repair of communications equipment and related network hardware and software.
- Current voice communication technologies and related scripting and programming practices and procedures.
- Current and recent Microsoft Windows Operating Systems, Exchange, IIS, Linux Operating Systems, SQL Servers, Active Directory and other servers.
- Hyper-V Virtualization configuration and maintenance.
- Client/Server Antivirus installation and maintenance.
- Backup and disaster recovery software.
- Fundamental understanding of network and internet concepts (e.g., Cisco firewalls, load balancers, Web browsers, TCP/IP, SSL, HTTP, etc.).
- Virtual Private Network set-up and maintenance.
- Windows Powershell; Visual Basic and Batch file scripting; Unix Shell scripting.
- Window Client and Server Software technologies including storage space and scale out file server, Fail-over Clustering and MPIO.
- Microsoft Azure.
- HP SAN technology including Fiber channel, InfiniBand, SAS/SATA and ISCSIGround Policy creation and troubleshooting.
- Desktop and Server installation, maintenance, and troubleshooting.
- Cisco Unified Communications Manager, Cisco Unity Connection, Cisco Contact Center, K&EExpress, Cisco IM Presence, Cisco Unified Intelligence Center, Cisco Telepresence Management Suite and Cisco Prime Collaboration; Cisco Routers/Switch setup and configuration for VoIPconnectivity.
- Voicemail setup, configuration and troubleshooting.
- CTI route point setup, Call handler's setup, configuration, testing and troubleshooting.
- Contact Center setup, configuration and testing. Agent, resource and Skill setup.
- Installation, termination and testing of network cabling (Cat5, Cat6 and Fiber).
- Web and Video conferencing coordination, configuration, set-up and support.

- Camera and video switcher control.
- Provide live webcast streaming, monitoring, and support.
- The organization, operation, and functions of the department as necessary to assume assigned responsibilities.
- Recent and on-going developments, current literature, and sources of information related to assigned programs.
- Applicable federal, state, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Principles of record keeping.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for effectively representing the District in contacts with governmental agencies, community groups, and various business, professional, educational, regulatory, and legislative organizations.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Perform and/or coordinate a variety of technical support functions in the installation, evaluation, configuration, operation, troubleshooting, and maintenance of computer hardware, software, servers, network and data communication, mobile, audiovisual, web based applications, and other related technologies and equipment.
- Understand, interpret, and explain hardware and software application solutions to users; research technical materials to provide solutions to problems.
- Coordinate and prioritize problem calls and work station support.
- Install, diagnose, and repair telecommunication systems and equipment.
- Program IP based telephone system software.
- Train users on use of equipment.
- Run custom queries against various data sources to generate reports.
- Design and update network diagrams with Visio.
- Design and implement network infrastructure throughout the District
- Provide account, billing support and administration related to mobile carriers and devices.
- Recommend new equipment, software, and services for purchase.
- Perform feasibility studies.
- Keep up with the current information technology.
- Perform preventative maintenance.
- Interpret and explain hardware and equipment manuals.
- Lead and participate in component-level troubleshooting and repair work.
- Identify issues and opportunities, analyze complex problems and alternatives and develop sound conclusions and recommendations.
- Participate in design sessions or process improvement sessions and provide sound recommendations and technical input.
- Develop and maintain technical operating instructions and documentation; train staff on software applications and hardware usage.
- Assist in the development of goals, objectives, policies, procedures, and work standards for the department.
- Research, analyze, and evaluate new service delivery methods, procedures, and techniques.
- Prepare clear and concise technical documentation, user procedures, reports of work performed, and other written materials.
- Interpret, apply, explain, and ensure compliance with applicable Federal, State, and local policies, procedures, laws, and regulations.

- Establish and maintain a variety of filing, record keeping, and tracking systems.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Operate and maintain modern office equipment, including computer equipment and specialized software applications programs.
- Perform, configure and test new system.
- Participate in technical and administration meeting discussions.
- Plan, assign, direct and review the work of others.
- Staying abreast with new trends and innovations in the field of information technologies, telecommunications and audio-visual systems.
- Train others in work procedures.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines in politically sensitive situations.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Equivalent to graduation from high school, and an Associate degree or completion of a certificate program that is equivalent to the major coursework for an Associate degree in information systems, computer science, electronics, electronic engineering technology or a related field; and five (5) years of increasingly responsible experience in network and server infrastructure management, and systems administration, installation, troubleshooting, maintenance and repair of voice communications systems and equipment similar to that of an Information Technology Specialist II with the District. Experience working with Intel-based servers (Linux and Windows Server OS) and network peripherals supporting a datacenter is preferred. In addition, possession of a Bachelor's or Master's degree in a related field listed above may be a substitute for a maximum of one year of the required experience listed above.

Licenses and Certifications:

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, and to operate a motor vehicle and to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. Standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification frequently bend, stoop, kneel, and reach to perform repetitive movements of hands or wrists, as well as push and pull drawers open and closed to retrieve and file information; climb stairs and ladders; and work in confined spaces using applicable safety requirements. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 50 pounds with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in an office and field environment with moderate to loud noise levels, various temperature conditions, on ladders/scaffolding or in high, precarious places, and near moving mechanical parts. The employee periodically works in confined spaces and is exposed to dirt, dust, solvents, toxic agents, and loud or prolonged noise. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.



SEPTEMBER 2017
FLSA: NON-EXEMPT

INFORMATION TECHNOLOGY SPECIALIST I/II

DEFINITION

Under supervision (Information Technology Specialist I), and general supervision (Information Technology Specialist II), and depending on assignment, performs a variety of technical duties in support of the District's technology system including desktop, telecommunications, software, audio visual, and network program services; serves as a first level responder by receiving and responding to computer related problems; troubleshoots hardware and software problems associated with the District's computers, telecommunication and related equipment; installs hardware equipment and software applications; makes recommendations regarding hardware and software acquisitions; trains and assists end users in using new applications and systems; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from assigned supervisory or management personnel. Exercises no direct supervision over staff.

CLASS CHARACTERISTICS

Information Technology Specialist I: this is the entry-level class in the Information Technology Specialist series. Employees in this class perform the more routine tasks and duties assigned to positions within the series including setting up and configuring desktop computers and performing routine maintenance on the network system. Employees in this class diagnose and resolve Help Desk problem calls and work station support duties. Employees at this level are not expected to function with the same amount of program knowledge or skill level as employees allocated to the Information Technology Specialist II level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Employees in this class typically report to an Information Technology Supervisor and receive lead work direction and guidance from a Senior Information Technology Specialist.

Information Technology Specialist II: this is the full journey-level class in the Information Technology Specialist series. Employees at this level perform a variety of skilled and technical work supporting various Information Technology functions within the department. Employees at this level are distinguished from the Information Technology Specialist I class by the performance of the full range of duties, as assigned. This classification is distinguished from the Senior Information Technology Specialist class in that the latter performs advanced journey level work and acts as a lead worker.

The positions in the Information Technology Specialist class series are flexibly staffed and positions at the Information Technology Specialist II level are normally filled by advancement from the Information Technology Specialist I level. Progression to the Information Technology Specialist II level requires (i)

the incumbent meeting the minimum qualifications for the classification including any required certifications; and (ii) a rating of satisfactory or better in the most recent performance appraisal.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

- Installs, configures, maintains, and upgrades operating systems and software packages across disparate platforms, servers, network and data communication systems, personal and mobile computing systems and equipment, audiovisual equipment, web based applications, and related technologies; performs basic system administration functions.
- Repairs and maintains departmental and District-wide enterprise software application(s); documents end user work processes and systems requirements; conducts systems walk-throughs and technical reviews; develops or refines system specifications, including evaluating and testing vendor software packages for conformance with user requirements and priorities.
- Assists in installing, configuring, maintaining, troubleshooting, and monitoring physical and virtual network and server infrastructure including hardware, software, real-time monitoring tools, peripherals, and devices ensuring effective performance and proper integration of components and systems with existing architecture; assists in infrastructure changes and upgrades to limit interrupted services.
- Assists in monitoring and maintaining security control of District network and server infrastructure; configuring and monitoring security features and firewall rules; verifying and ensuring proper user accessibility; identifying and addressing vulnerabilities; researches, recommends, and applies security updates as needed.
- Assists programming staff and system users in resolving hardware, software, and operational problems.
- Receives and evaluates requests for service; diagnoses problems; troubleshoots and implements remedial actions, researches documentation and determines solution, and resolves problems with hardware, software, security and access controls, and systems issues; escalates issues to higher-level staff and/or vendor for resolution as appropriate.
- Performs technical help desk support including handling a high volume of customer inquiries and complaints and resolving tier one requests by remote session, telephone, or email.
- Conducts system and database back-ups as needed; follows back up procedures.
- Monitors computer systems, networks and applications for response time, problem prevention, performance and resource utilization.
- Performs network administration duties such as monitoring or adding applications, users and devices, modifying user profiles, re-setting passwords and file maintenance; monitors storage utilization; documents all network changes and revisions.
- Prepares and maintains system documentation required for telecommunication networks.
- Writes and maintains user and technical operating instructions and documentation; assists users in implementing new or modified programs and applications.
- Provides information and assistance to District users regarding telephone, computer hardware, and data network use and functions; participates in the development of alternative computer and equipment applications and functions to achieve user product requirements.
- Installs, maintains, troubleshoots, and monitors District-wide telecommunications systems including voice and data communications infrastructure and equipment; sets up and maintains user accounts, access groups, extensions, and voicemail boxes; troubleshoots system-wide outages.
- Assist in the preparation and maintenance of system documentation required for telecommunications networks, including the updating of building/floor blueprints, network

database, procedures manual, and Private Area Branch Exchange configuration.

- Operates telecommunications network management consoles and monitors network performance; diagnoses network malfunctions and takes corrective action; assesses network performance and allocates resources, as needed.
- Implements telecommunications modifications and the relocation of equipment; lays out hardware configurations; determines wiring specifications for cables; maintains telephone data lease lines and interfaces to ensure uninterrupted data communications service; uses testing equipment to identify and correct system malfunctions.
- Prepares reports on telecommunications system performance, breakdowns, relocations, usage, and problems; maintains inventory of data communication hardware and equipment; assists users with telephone, computer hardware, data network capabilities and system specifications; assists in training users on hardware and communication system functions.
- Assists and participates in the installation, modification, and maintenance of wireless communications systems; participates in the determination of user needs.
- Installs, modifies, and maintains wireless, data, and voice communications systems; performs hardware maintenance and repair; analyzes telecommunications user needs, and recommends and installs system equipment to meet user requirements.
- Performs on-line video and voice recordings of the District's monthly Board meetings, contracted City meetings, and other meetings as needed.
- Operates the audio mixer, video cameras, audio recorders, video recorders, teleconferencing system, and duplicating rack, as required, to provide special effects, sound, and pictures of high technical quality. Provides feeds to various monitors throughout the District, local cable networks, and various broadcasting stations.
- Edits and assembles segments from different audio and video tapes and recorders; locates and transfers segments into precise sequences to create master tapes.
- Installs and operates lighting and sound equipment such as microphones, speakers, flood lamps, spotlights, and reflectors, as needed.
- May train District staff in the use of video production equipment.
- Sets up and operates audio-visual equipment such as camcorders, tape recorders, film projectors, and slide projectors. Operates the video-switcher to coordinate the equipment according to instructions to perform such tasks as switching from one picture to another, superimposing multiple pictures onto one screen, and adding special effects.
- May coordinate and assist with outside audio and video vendors to provide audio and/or video system to meet deadlines.
- Researches, evaluates, and recommends purchases of computer equipment and supplies; maintains inventory; tracks and receives a variety of computer systems and telecommunications equipment, software applications supplies, training materials, and related needs adhering to established purchasing policies.
- Stays abreast of new information technology trends and innovations; reads appropriate literature and attends training as necessary.
- Assists in developing goals, objectives, policies, procedures, work standards, and administrative control systems for the department to which assigned.
- Maintains accurate records and files; develops storage of records and retention schedules.
- Performs other duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

- Principles and practices used in the installation, evaluation, configuration, operation, troubleshooting, and maintenance of computer hardware, software, servers, network and data communication, mobile, audiovisual, web based applications, and other related technologies and equipment.
- Techniques and methods of writing and maintaining user and technical operating instructions and documentation.
- Understanding of system design, configuration and database application concepts.
- Linux and Windows server administration and support, including applying patches, installations, and upgrades.
- Database administration including MS SQL, Oracle and Ingres.
- Operational characteristics of local, wireless, and wide area network systems.
- Operational characteristics of a variety of communication equipment and devices.
- Computer logic and mathematics.
- Computer scripting language.
- Cisco IOS command lines.
- HP SAN products and technologies.
- Microsoft Client Server technologies.
- Video conferencing technologies.
- LAN-WAN technologies.
- Methods of telecommunication system design and implementation.
- Current voice communication technologies and related scripting and programming practices and procedures.
- Current and recent Microsoft Windows Operating Systems, SQL Servers, other servers and Active Directory.
- Hyper-V Virtualization configuration, maintenance.
- Client/Server Antivirus installation and maintenance.
- Backup and disaster recovery software.
- Fundamental understanding of network and internet concepts (e.g., firewalls, load balancers, Web browsers, TCP/IP, SSL, HTTP, etc).
- Virtual Private Network set-up and maintenance.
- Windows Fail-over Clustering and MPIO.
- Windows PowerShell; Visual Basic and Batch file scripting, Unix shell scripting.
- Group Policy creation and troubleshooting.
- Cisco Unified Communications Manager, Cisco Unity Connection, Cisco Contact Center, K&E Express, Cisco IM Presence, Cisco Unified Intelligence Center, Cisco Telepresence Management Suite and Cisco Prime Collaboration; Cisco Routers/Switch setup and configuration for VoIP connectivity.
- Voicemail setup, configuration and troubleshooting.
- Cisco technologies including voice and data.
- CTI route point setup, Call handler's setup, configuration, testing and troubleshooting.
- Contact Center setup, configuration and testing. Agent, resource and Skill setup.
- Installation, termination and testing of network cabling (Cat5, Cat6 and Fiber).
- Camera and video switcher control.
- Provide live webcast streaming, monitoring, and support.

- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Record keeping principles and procedures.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- The organization, operation, and functions of the department as necessary to assume assigned responsibilities.
- Recent and on-going developments, current literature, and sources of information related to assigned programs.
- Techniques for effectively representing the District in contacts with governmental agencies, community groups, and various business, professional, educational, regulatory, and legislative organizations.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Perform and/or coordinate a variety of technical support functions in the installation, evaluation, configuration, operation, troubleshooting, and maintenance of computer hardware, software, servers, network and data communication, mobile, audiovisual, web based applications, and other related technologies and equipment.
- Coordinate and prioritize problem calls and work station support.
- Participate in design sessions or process improvement sessions and provide sound recommendations and technical input.
- Develop and maintain technical operating instructions and documentation; train staff on software applications and hardware usage.
- Program IP based telephone system software.
- Train users on use of equipment.
- Run custom queries against various data sources to generate reports.
- Design and update network diagrams with Visio.
- Design and implement network infrastructure throughout the District.
- Provide account management, billing support and administration related to mobile carriers and devices.
- Interpret and explain hardware and equipment manuals.
- Assist in the design of new telephone system networks.
- Assist in the development of goals, objectives, policies, procedures, and work standards for the department.
- Prepare clear and concise reports, correspondence, policies, procedures, and other written materials.
- Identify issues and opportunities, analyze complex problems and alternatives and develop sound conclusions and recommendations.
- Interpret, apply, explain, and ensure compliance with applicable Federal, State, and local policies, procedures, laws, and regulations.
- As assigned, plan, assign, direct and review the work of others.
- Establish and maintain a variety of filing, record keeping, and tracking systems.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Stays abreast of current trends, innovations and developments in the technology field.

- Operate and maintain modern office equipment, including computer equipment and specialized software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines in politically sensitive situations.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Education: Equivalent to graduation from high school supplemented by completion of at least 15 semester or 22.5 quarter units from an accredited college or university and training in information systems, computer science, electronics, electronic engineering technology, computer technology, or a related field.

Experience:

Information Technology Specialist I: Two (2) years of experience providing technical support in the installation, maintenance, and repair of information systems and infrastructure similar to that of an Assistant Information Technology Specialist with the District. Experience working with Intel-based servers (Linux and Windows Server OS) and network peripherals supporting a datacenter is preferred.

Information Technology Specialist II: Three (3) years of experience in network and server infrastructure management, and systems administration, installation, troubleshooting, maintenance and repair of voice communications systems and equipment similar to that of an Information Technology Specialist I with the District. Experience working with Intel-based servers (Linux and Windows Server OS) and network peripherals supporting a datacenter is preferred.

Licenses and Certifications:

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, and to operate a motor vehicle and to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. Standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification frequently bend, stoop, kneel, and reach to perform repetitive movements of hands or wrists, as well as push and pull drawers open and closed to retrieve and file information; climb stairs and ladders; work in confined spaces using applicable safety requirements. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 50 pounds with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in an office and field environment with moderate to loud noise levels, various temperature conditions, on ladders/scaffolding or in high, precarious places, and near moving mechanical parts. The employee periodically works in confined spaces and is exposed to dirt, dust, solvents, toxic agents, and loud or prolonged noise. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures. Employees may be required to work rotating shifts, nights, weekends, and holidays depending on assignment.



SEPTEMBER 2017
FLSA: NON-EXEMPT

ASSISTANT INFORMATION TECHNOLOGY SPECIALIST

DEFINITION

Under close supervision, in a training capacity, and depending on assignment, learns to provide technical support on use of computers, hardware, software, network, mobile, and related technologies and equipment; learns to install, configure, and maintain software, hardware, and phone systems; and performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives close supervision from assigned lead, supervisory or management personnel. Exercises no supervision over staff.

CLASS CHARACTERISTICS

This is the trainee level class in the Information Technology Specialist series, intended to provide employees with the skills and the knowledge required to perform the duties of the Information Technology Specialist I position. Employees in this class perform the more routine tasks and duties assigned to positions within the series, including setting up and configuring desktop computers and performing routine maintenance on the network system. Employees in this class learn to diagnose and resolve Help Desk problem calls and work station support duties, and perform those duties as assigned. Employees at this level are not expected to function with the same amount of program knowledge or skill level as employees allocated to the Information Technology Specialist I level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Employees in this class typically report to an Information Technology Supervisor and receive lead work direction and guidance from a Senior Information Technology Specialist and/or an Information Technology Specialist I or II.

The positions in the Information Technology Specialist class series are flexibly staffed and positions at the Information Technology Specialist I level may be filled by advancement from the Assistant Information Technology Specialist level. Progression to the Information Technology Specialist I level requires: (i) the incumbent meeting the minimum qualifications for the classification including any required certifications; and (ii) a rating of satisfactory or better in the most recent performance appraisal.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS (Illustrative Only)

- Learns how to install, configure, maintain, and upgrade operating systems and software packages across disparate platforms, servers, network and data communication systems, personal and mobile computing systems and equipment, audiovisual equipment, web based applications, and related technologies; learns how to perform basic system administration functions.
- Learns how to receive and evaluate requests for service; learns how to diagnose problems; learns how to troubleshoot and implement remedial actions, researches documentation and determines solution, and resolves problems with hardware, software, security and access controls, and systems issues; learns how to escalate issues to higher-level staff and/or vendor for resolution as appropriate.
- Learns how to perform technical help desk support including handling a high volume of customer inquiries and complaints and resolving tier one requests by remote session, telephone, or email.
- Learns how to track equipment and hardware inventory throughout the District; may recommend equipment and supplies for purchase and budget preparation.
- Learns how to conduct system and database back-ups as needed; files back up procedures.

- Learns how to monitor computer systems, networks and applications for response time, problem prevention, performance and resource utilization.
- Learns how to perform network administration duties such as monitoring or adding applications, users and devices, modifying user profiles, re-setting passwords and file maintenance; learns to monitor storage utilization; documents all network changes and revisions.
- Learns how to prepare and maintain system documentation required for telecommunication networks.
- Learns how to provide assistance to information system users for network security by monitoring, installing software updates and staying abreast of security technology trends and innovations.
- Assists in developing goals, objectives, policies, procedures, work standards, and administrative control systems for the department to which assigned.
- Maintains accurate records and files; develops storage of records and retention schedules.
- Learns how to prepare and maintain system documentation required for telecommunications networks, including the updating of building/floor blueprints, network database, procedures manual, and Private Area Branch Exchange configuration.
- Assists and participates in the installation, modification, and maintenance of wireless communication systems; participates in the determination of user needs.
- Learns how to order and install computer boards, parts, and supplies for telephones, wireless systems, computers, and auxiliary equipment, according to design specifications and program requirements.
- Learns how to operate telecommunications network management consoles and monitors network performance; diagnoses network malfunctions and takes corrective action; assesses network performance and allocates resources, as needed.
- Utilizes the knowledge and skills received in training to perform related tasks, and other duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

- Basic principles and practices used in the installation, evaluation, configuration, operation, troubleshooting, and maintenance of computer hardware, software, servers, network and data communication, mobile, audiovisual, web based applications, and other related technologies and equipment.
- Basic techniques and methods of writing and maintaining user and technical operating instructions and documentation.
- Basic Linux and Windows server administration and support, including applying patches, installations, and upgrades.
- Basic database administration including MS SQL, Oracle and Ingres.
- Basic operational characteristics of local and wide area network systems.
- Basic operational characteristics of a variety of communication equipment and devices.
- Basic computer logic and mathematics.
- Basic LAN-WAN technologies.
- Basic Client-Server technologies.
- Basic backup and restore software technologies.
- Basic network cabling system and installation.
- Basic OS system and installation.
- Basic computer hardware and software installation.
- Basic principles and practices of electronic telecommunication system maintenance and repair.
- Basic components and equipment used in telecommunication systems.
- Basic methods of computer and telecommunication system design and implementation.
- Principle languages used in information systems programs.

- Basic record keeping principles and procedures.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for effectively representing the District in contacts with governmental agencies, community groups, and various business, professional, educational, regulatory, and legislative organizations.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Learn how to perform a variety of technical support functions in the installation, evaluation, configuration, operation, troubleshooting, and maintenance of computer hardware, software, servers, network and data communication, mobile, audiovisual, web based applications, and other related technologies and equipment.
- Learn how to understand, interpret, and explain hardware and software application solutions to users; learn how to research technical materials to provide solutions to problems.
- Participate in design sessions or process improvement sessions and provide sound recommendations and technical input.
- Learn how to develop and maintain technical operating instructions and documentation; learn how to train staff on software applications and hardware usage.
- Assist in the development of goals, objectives, policies, procedures, and work standards for the department.
- Prepare clear and concise reports, correspondence, policies, procedures, and other written materials.
- Learn how to interpret, apply, explain, and ensure compliance with applicable Federal, State, and local policies, procedures, laws, and regulations.
- Establish and maintain a variety of filing, record keeping, and tracking systems.
- Install basic computer hardware and software of information technologies and telecommunication systems.
- Learn how to install, diagnose, and repair computer and telecommunication systems and equipment.
- Learn how to program telephone system software.
- Learn how to train users on use of equipment.
- Assist in the design of new IP based telephone system networks.
- Learn how to perform preventative maintenance.
- Learn how to interpret and explain hardware and equipment manuals.
- Learn and participate in component-level troubleshooting and repair work.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Operate and maintain modern office equipment, including computer equipment and specialized software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines in politically sensitive situations.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Equivalent to graduation from high school, supplemented by completion of at least 15 semester or 22.5 quarter units from an accredited college or university and training in information systems, computer science, or a related field; or six (6) months of experience providing technical support in the installation, maintenance, and repair of information systems and infrastructure, and telecommunications equipment operation, installation, and repair. Experience working with Intel-based servers (Linux and Windows Server OS) and network peripherals supporting a datacenter is preferred.

Licenses and Certifications:

- Possession of, or ability to obtain, a valid California Driver's License by time of appointment.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, and to operate a motor vehicle and to visit various District and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. Standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification frequently bend, stoop, kneel, and reach to perform repetitive movements of hands or wrists, as well as push and pull drawers open and closed to retrieve and file information; climb stairs and ladders; work in confined spaces using applicable safety requirements. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 50 pounds with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in an office and field environment with moderate to loud noise levels, various temperature conditions, on ladders/scaffolding or in high, precarious places, and near moving mechanical parts. The employee periodically works in confined spaces and is exposed to dirt, dust, solvents, toxic agents, and loud or prolonged noise. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures. Employees may be required to work rotating shifts, nights, weekends, and holidays depending on assignment.

EXHIBIT B

PROPOSED AMENDMENTS TO SALARY RESOLUTION

Chapter II, Article 1

Section 53 – Table of Classes

Section 54 – Management and Confidential Classification Salaries

Chapter III, Article 7

Designated Deputy Annual Salaries

CHAPTER II

ARTICLE I

TABLE OF CLASSES

Section 51. GENERAL PROVISIONS

- a. The Table of Classes (Section 53) lists all the classes in the service of SCAQMD that are provided for by this *Resolution*.

Section 52. SCHEDULE NUMBERS

- a. The schedule numbers listed in Section 53 below for classes refers to SCAQMD's *Salary Schedule*. Salary amounts for represented classes are listed in the appendices to the *MOUs*.

Salary amounts for management and confidential classes are listed in Section 54.

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Section 53. TABLE OF CLASSES

Accountant	**
Accounting Technician	37E
Administrative Assistant	**
Administrative Secretary	**
Administrative Secretary/Legal	**
Affirmative Action Officer	**
AQ Analysis & Compliance Supervisor	62F
AQ Chemist	53D
AQ Engineer I	53D
AQ Engineer II	55E
AQ Inspector	37E
AQ Inspector I	39C
AQ Inspector II	47H
AQ Inspector III	50L
AQ Instrument Specialist I	44G
AQ Instrument Specialist II	47H
AQ Specialist	55E
Asst. AQ Chemist	46F
Asst. AQ Engineer	49E
Asst. AQ Instrument Specialist	37E
Asst. AQ Specialist	49E
Asst. Computer Operator	32C
Asst. Database Administrator	**
<u>Asst. Information Technology Specialist</u>	<u>35H</u>
Asst. Programmer	40H
Atmospheric Measurements Manager	**
Audio Visual Specialist	43J
Building Maintenance Manager	**
Building Supervisor	45K
Business Services Manager	**
Career Development Intern	**
Clean Fuels Officer	**
Clerk of the Boards	**
Community Relations Manager	**
Computer Operations Supervisor	39L
Computer Operator	35H
Controller	**
Data Technician	35F
Database Administrator	**
Deputy Clerk	34C
Deputy Clerk/Transcriber	37H
Deputy District Counsel I	**
Deputy District Counsel II	**
Designated Deputy	**
District Storekeeper	36B
Engineering Technician	45B

Executive Secretary	**
Facilities Services Specialist	37L
Facilities Services Technician	41C
Financial Analyst	**
Financial Services Manager	**
Fiscal Assistant	29J
Fleet Services Supervisor	38J
Fleet Services Worker I	28D
Fleet Services Worker II	33B
General Maintenance Helper	28J
General Maintenance Worker	43A
Graphic Arts Illustrator I	34J
Graphic Arts Illustrator II	38J
Graphic Arts Manager	**
Health Effects Officer	**
Human Resources Analyst	**
Human Resources Manager	**
Human Resources Technician	**
<u>Information Technology Supervisor</u>	<u>14</u>
<u>Information Technology Specialist I</u>	<u>37L</u>
<u>Information Technology Specialist II</u>	<u>45D</u>
Investigations Manager	**
Investigator I	
Investigator II	53D
Laboratory Technician	39E
Legal Secretary	**
Legislative Analyst	**
Legislative Assistant	**
Mail/Subscription Services Clerk	28D
Mail/Subscription Services Supervisor	36A
Meteorologist	54K
Meteorologist Technician	50D
Office Assistant	28D
Offset Press Operator	34J
Paralegal	45B
Payroll Technician	34F
Planning & Rules Manager	**
Principal AQ Chemist	62F
Principal AQ Instrument Specialist	54J
Principal Deputy District Counsel	**
Principal Office Assistant	39G
Print Shop Duplicator	29J
Print Shop Supervisor	40L
Procurement Manager	**
Program Supervisor	62F
Programmer	47B
Programmer Analyst	53B
Public Affairs Manager	**

Public Affairs Specialist	44H
Purchasing Assistant	38K
Purchasing Supervisor	48B
Quality Assurance Manager	**
Radiotelephone Operator	28H
Risk Manager	**
Secretary	33G
Secretary (Confidential)	**
Sr. Accountant	**
Sr. Administrative Secretary	**
Sr. AQ Chemist	56D
Sr. AQ Engineer	58D
Sr. AQ Engineering Manager	**
Sr. AQ Instrument Specialist	50L
Sr. Deputy Clerk	41A
Sr. Deputy District Counsel	**
Sr. Enforcement Manager	**
Sr. Fiscal Assistant	33G
Sr. Information Technology Specialist	53B
Sr. Meteorologist	58B
Sr. Office Assistant	32C
Sr. Paralegal	48B
Sr. Public Affairs Manager	**
Sr. Public Information Specialist	**
Sr. Staff Specialist	58B
Sr. Transportation Specialist	58B
Staff Assistant	34K
Staff Specialist	55E
Stenographer	23D
Stock Clerk	28D
Supervising AQ Engineer	62F
Supervising AQ Inspector	54J
Supervising Investigator	55G
Supervising Office Assistant	36A
Supervising Payroll Technician	**
Supervising Radiotelephone Operator	36A
Systems Analyst	**
Systems & Programming Manager	**
Systems & Programming Supervisor	**
Technical Information Center Librarian	46G
Technical Writer	43J
Technology Implementation Manager	**
Telecommunications Analyst	**
Telecommunications Supervisor	**
Telecommunications Technician I	45D
Telecommunications Technician II	47H
Transportation Plan Reviewer	42F
Workers' Compensation & Safety Analyst	**

Section 54. MANAGEMENT AND CONFIDENTIAL CLASSIFICATION SALARIES

Effective April 5, 2013

Effective with pay period 1310, or as soon as practicable, each management or confidential employee shall receive a one-time payment equal to one percent (1%) of their annual base salary.

Effective December 6, 2013

Effective as soon as practicable after December 6, 2013, each management and confidential employee shall receive a one-time payment equal to 0.5% of their annual base salary.

Effective with the start of the pay period encompassing January 1, 2015.

<u>Classification</u>	<u>Step 1</u>	<u>Step 5</u>
Accountant	\$62,515	\$77,359
Administrative Assistant	\$78,464	\$97,200
Administrative Secretary	\$52,957	\$65,565
Administrative Secretary/Legal	\$57,286	\$70,910
Affirmative Action Officer	\$84,157	\$102,312
Assistant Database Administrator	\$73,068	\$90,529
Atmospheric Measurements Manager	\$112,015	\$136,214
Building Maintenance Manager	\$84,157	\$102,312
Business Services Manager	\$84,157	\$102,312
Clean Fuels Officer	\$101,848	\$123,810
Clerk of the Boards	\$84,157	\$102,312
Community Relations Manager	\$84,157	\$102,312
Controller	\$112,015	\$136,214
Database Administrator	\$95,079	\$117,738
Deputy District Counsel I	\$75,442	\$93,512
Deputy District Counsel II	\$101,848	\$123,810
Executive Secretary	\$63,939	\$79,335
Financial Analyst	\$78,464	\$97,200
Financial Services Manager	\$112,015	\$136,214
Graphic Arts Manager	\$84,157	\$102,312
Human Resources Analyst	\$78,464	\$97,200
Human Resources Manager	\$112,015	\$136,214
Human Resources Technician	\$51,272	\$63,474

Investigations Manager	\$84,157	\$102,312
Legal Secretary	\$52,957	\$65,565
Legislative Analyst	\$66,611	\$82,530
Legislative Assistant	\$57,286	\$70,910
Planning & Rules Manager	\$112,015	\$136,214
Principal Deputy District Counsel	\$120,768	\$146,859
Procurement Manager	\$112,015	\$136,214
Public Affairs Manager	\$92,610	\$112,596
Quality Assurance Manager	\$101,848	\$123,810
Risk Manager	\$92,610	\$112,596
Secretary (Confidential)	\$43,167	\$53,481
Senior Accountant	\$68,906	\$85,174
Senior Administrative Secretary	\$57,286	\$70,910
Senior AQ Engineering Manager	\$112,015	\$136,214
Senior Deputy District Counsel	\$115,375	\$140,300
Senior Enforcement Manager	\$112,015	\$136,214
Senior Public Affairs Manager	\$112,015	\$136,214
Senior Public Information Specialist	\$70,503	\$87,294
Supervising Payroll Technician	\$52,550	\$64,984
Systems Analyst	\$85,668	\$106,061
Systems & Programming Supervisor	\$95,079	\$117,738
Technology Implementation Manager	\$112,015	\$136,214
Telecommunications Analyst	\$77,591	\$96,096
Telecommunications Supervisor	\$86,946	\$105,712
Workers Comp. & Safety Analyst	\$62,515	\$77,359

Effective with the start of the pay period encompassing January 1, 2016.

<u>Classification</u>		
Accountant	\$63,453	\$78,519
Administrative Assistant	\$79,640	\$98,658
Administrative Secretary	\$53,752	\$66,548
Administrative Secretary/Legal	\$58,146	\$71,974
Affirmative Action Officer	\$85,419	\$103,847
Assistant Database Administrator	\$74,164	\$91,887
Atmospheric Measurements Manager	\$113,696	\$138,257

<u>Classification</u>		
Building Maintenance Manager	\$85,419	\$103,847
Business Services Manager	\$85,419	\$103,847
Clean Fuels Officer	\$103,376	\$125,667
Clerk of the Boards	\$85,419	\$103,847
Community Relations Manager	\$85,419	\$103,847
Controller	\$113,696	\$138,257
Database Administrator	\$96,505	\$119,504
Deputy District Counsel I	\$76,574	\$94,914
Deputy District Counsel II	\$103,376	\$125,667
Executive Secretary	\$64,898	\$80,525
Financial Analyst	\$79,640	\$98,658
Financial Services Manager	\$113,696	\$138,257
Graphic Arts Manager	\$85,419	\$103,847
Human Resources Analyst	\$79,640	\$98,658
Human Resources Manager	\$113,696	\$138,257
Human Resources Technician	\$52,041	\$64,426
Investigations Manager	\$85,419	\$103,847
Legal Secretary	\$53,752	\$66,548
Legislative Analyst	\$67,610	\$83,768
Legislative Assistant	\$58,146	\$71,974
Planning & Rules Manager	\$113,696	\$138,257
Principal Deputy District Counsel	\$122,580	\$149,061
Procurement Manager	\$113,696	\$138,257
Public Affairs Manager	\$93,999	\$114,285
Quality Assurance Manager	\$103,376	\$125,667
Risk Manager	\$93,999	\$114,285
Secretary (Confidential)	\$43,815	\$54,283
Senior Accountant	\$69,940	\$86,452
Senior Administrative Secretary	\$58,146	\$71,974
Senior AQ Engineering Manager	\$113,696	\$138,257
Senior Deputy District Counsel	\$117,106	\$142,404
Senior Enforcement Manager	\$113,696	\$138,257
Senior Public Affairs Manager	\$113,696	\$138,257
Senior Public Information Specialist	\$71,561	\$88,603
Supervising Payroll Technician	\$53,339	\$65,959
Systems Analyst	\$86,953	\$107,652

<u>Classification</u>		
Systems & Programming Supervisor	\$96,505	\$119,504
Technology Implementation Manager	\$113,696	\$138,257
Telecommunications Analyst	\$78,755	\$97,538
Telecommunications Supervisor	\$88,250	\$107,297
Workers Comp. & Safety Analyst	\$63,453	\$78,519

Effective with the start of the pay period encompassing January 1, 2017.

<u>Classification</u>		
Accountant	\$64,404	\$79,697
Administrative Assistant	\$80,835	\$100,138
Administrative Secretary	\$54,558	\$67,546
Administrative Secretary/Legal	\$59,018	\$73,054
Affirmative Action Officer	\$86,701	\$105,405
Assistant Database Administrator	\$75,276	\$93,265
Atmospheric Measurements Manager	\$115,401	\$140,331
Building Maintenance Manager	\$86,701	\$105,405
Business Services Manager	\$86,701	\$105,405
Clean Fuels Officer	\$104,926	\$127,552
Clerk of the Boards	\$86,701	\$105,405
Community Relations Manager	\$86,701	\$105,405
Controller	\$115,401	\$140,331
Database Administrator	\$97,953	\$121,296
Deputy District Counsel I	\$77,723	\$96,338
Deputy District Counsel II	\$104,926	\$127,552
Executive Secretary	\$65,871	\$81,732
Financial Analyst	\$80,835	\$100,138
Financial Services Manager	\$115,401	\$140,331
Graphic Arts Manager	\$86,701	\$105,405
Human Resources Analyst	\$80,835	\$100,138
Human Resources Manager	\$115,401	\$140,331
Human Resources Technician	\$52,822	\$65,392
Investigations Manager	\$86,701	\$105,405
Legal Secretary	\$54,558	\$67,546
Legislative Analyst	\$68,624	\$85,025
Legislative Assistant	\$59,018	\$73,054

<u>Classification</u>		
Planning & Rules Manager	\$115,401	\$140,331
Principal Deputy District Counsel	\$124,418	\$151,297
Procurement Manager	\$115,401	\$140,331
Public Affairs Manager	\$95,409	\$115,999
Quality Assurance Manager	\$104,926	\$127,552
Risk Manager	\$95,409	\$115,999
Secretary (Confidential)	\$44,472	\$55,097
Senior Accountant	\$70,989	\$87,748
Senior Administrative Secretary	\$59,018	\$73,054
Senior AQ Engineering Manager	\$115,401	\$140,331
Senior Deputy District Counsel	\$118,862	\$144,541
Senior Enforcement Manager	\$115,401	\$140,331
Senior Public Affairs Manager	\$115,401	\$140,331
Senior Public Information Specialist	\$72,634	\$89,932
Supervising Payroll Technician	\$54,139	\$66,948
Systems Analyst	\$88,257	\$109,266
Systems & Programming Supervisor	\$97,953	\$121,296
Technology Implementation Manager	\$115,401	\$140,331
Telecommunications Analyst	\$79,937	\$99,001
Telecommunications Supervisor	\$89,574	\$108,907
Workers Comp. & Safety Analyst	\$64,404	\$79,697

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ARTICLE 7

DESIGNATED DEPUTY ANNUAL SALARIES

(Effective with the start of the pay period encompassing January 1, 2015)

Assistant Chief Deputy Counsel, Major Prosecutions	\$158,049
Assistant Deputy Executive Officer	\$155,669
Chief Deputy Counsel	\$178,398
Deputy Executive Officer, including Chief Financial Officer	\$166,615
Director of Strategic Initiatives	\$148,723
Health Effects Officer	\$148,723
Intergovernmental Affairs Officer	Vacant
Senior Policy Advisor	\$151,614

(Effective with the start of the pay period encompassing January 1, 2016)

Assistant Chief Deputy Counsel, Major Prosecutions	\$160,420
Assistant Deputy Executive Officer	\$158,004
Chief Deputy Counsel	\$181,074
Deputy Executive Officer, including Chief Financial Officer	\$169,114
Director of Strategic Initiatives	\$150,954
Health Effects Officer	\$150,954
Intergovernmental Affairs Officer	Vacant
Senior Policy Advisor	\$153,888

(Effective with the start of the pay period encompassing January 1, 2017)

Assistant Chief Deputy Counsel, Major Prosecutions	\$162,826
Assistant Deputy Executive Officer	\$160,374
Chief Deputy Counsel	\$183,790
Deputy Executive Officer, including Chief Operating Officer and Chief Administrative Officer	\$171,651
Director of Strategic Initiatives	\$153,218
<u>Director of Communications</u>	\$153,218
Health Effects Officer	\$153,218
Intergovernmental Affairs Officer	Vacant
Senior Policy Advisor	\$156,196

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 10

PROPOSAL: Close and Transfer Residual Balances from Five Special Revenue Funds and One Enterprise Fund

SYNOPSIS: SCAQMD maintains multiple funds as a means of accounting for revenues that have restricted or designated purposes. As discussed during the FY 2017-18 General Fund Budget Hearing process, staff is performing a review of all funds to determine the appropriate disposition of monies. This action is to recommend the close and transfer of five special revenue funds and one enterprise fund as part of the first step of the review process.

COMMITTEE: Administrative, July 14, 2017; Recommended for approval

RECOMMENDED ACTION:

Authorize the close and transfer of residual balances including any additional interest from the following funds, and as described in the Proposal section of this Board Letter.

- Air Quality Studies Fund
- Asthma and Brain Cancer Research Fund
- Clean Fuels Conference Fund
- Hydrogen Fueling Station Fund
- Prop 1B Funding – Lower Emission School Bus
- Compressed Natural Gas (CNG) Fueling Station Fund

Wayne Natri
Executive Officer

MBO:SJ:tam

Background

SCAQMD maintains multiple funds as a means of accounting for revenues that have restricted or designated purposes. These funds include the General Fund, Special Revenue Funds, Trust and Agency Funds, Debt Service Funds, an Enterprise Fund, and a Capital Improvement Fund. There are a total of fifty-five funds maintained by SCAQMD. The General Fund is the primary operating fund of SCAQMD and is used

to record transactions relating to general business operations. Special Revenue Funds are used to account for and report the proceeds of specific revenue sources that are restricted to expenditures for specific purpose other than debt service and infrastructure/capital type projects. There are forty-eight Special Revenue Funds. In addition, SCAQMD maintains one Enterprise Fund, one Debt Service Fund, one Capital Improvement Fund, and three Trust and Agency Funds.

The following table is a summary of SCAQMD’s fund types and balances as of June 30, 2017:

Fund Type	Cash Balance	Encumbrance/Board Approved Obligations	Remaining Balance
General Fund	\$ 53,697,862.76	\$ (10,423,165.78)	\$ 43,274,696.98
Special Revenue Funds	\$ 616,229,564.17	\$ (294,373,616.29)	\$ 321,855,947.88
Debt Service Fund	\$ 3,082,913.95	\$ -	\$ 3,082,913.95
Infrastructure Improvement Fund	\$ 2,402,709.48	\$ (87,613.00)	\$ 2,315,096.48
Enterprise Fund	\$ 1,244,350.01	\$ -	\$ 1,244,350.01
Trust and Agency Funds	\$ 134,670.71	\$ -	\$ 134,670.71
Total	\$ 676,792,071.08	\$ (304,884,395.07)	\$ 371,907,676.01

Additionally, a list of all funds along with the cash balance, encumbrances/Board approved obligations, remaining balance, and note/descriptions is attached to the Board Letter.

During the Fiscal Year 2017-18 General Fund Budget Hearings, staff committed to performing a review of all of the various funds to determine which funds should be closed and/or which funds are available for projects. As staff continues to work through these funds, several have been identified where the monies can be transferred to other similar funds due to inactivity or obsolescence.

The following funds have been identified as those that should be closed and their balances transferred to other funds:

Air Quality Studies Fund

This fund was set up to account for contributions made by outside organizations to fund various air quality studies. Other than residual interest, the fund has had no revenue since 1992 and has a balance of \$16,388.38. These projects are now generally funded through the Health Effects Research Fund. There are no restrictions on the monies remaining in this special fund that would prohibit this transfer to the Health Effects Research Fund.

Asthma and Brain Cancer Research Fund

This fund was set up to assist in funding research projects relating to asthma and outdoor air quality and the potential link between air pollution and brain cancer. Other than residual interest, the fund has had no activity since 2012 and has a balance of \$100,070.40. These projects are now generally funded through the Health Effects Research Fund. There are no restrictions on the monies remaining in this special fund that would prohibit this transfer to the Health Effects Research Fund.

Clean Fuels Conference Fund

This fund was set up to account for monies received to fund all Clean Fuels related conferences. These conferences were held to facilitate the development of hydrogen-powered technologies, including motor vehicles, refueling infrastructure, and stationary applications. Other than residual interest, the fund has had no activity since 2013 and has a balance of \$103,776.91. Future conferences can be funded directly through the Clean Fuels Fund. There are no restrictions on the monies remaining in this special fund that would prohibit this transfer to the Clean Fuels Fund.

Hydrogen Fueling Station Fund

This fund was set up to recognize co-funding from the Department of Energy-National Renewable Energy Laboratory, CARB and CEC, for the maintenance and operation of the City of Burbank hydrogen fueling station and for maintenance and data management services for the hydrogen fueling station at SCAQMD headquarters. The fund has a residual interest balance of \$8,126.49 and the project has been completed. There are no restrictions on the monies remaining in this special fund that would prohibit this transfer to the Clean Fuels Fund.

Prop 1B Funding – Lower Emission School Bus

This fund was set up to recognize Proposition 1B monies for the replacement and retrofitting of public school buses. The fund has a residual interest balance of \$207.00 and no additional Prop 1B Lower Emission School Bus funding is forthcoming. There are no restrictions on the monies remaining in this special fund that would prohibit this transfer to the General Fund.

Compressed Natural Gas (CNG) Fueling Station Fund

This fund was set up to administer and account for all activities, transactions, and funding relating to the public and SCAQMD's use of CNG fueling facilities at SCAQMD's headquarters. In Fiscal Year 2015-16, the CNG Station was sold to a third-party operator who owns the equipment and leases the CNG station space at the SCAQMD Headquarters Building. The fund has a residual balance of \$1,244,350.01 that was originally intended to be used to fund any necessary CNG station infrastructure upgrades. The responsibility for the replacement and upgrade of the CNG station infrastructure now resides with the third party operator, not SCAQMD. SCAQMD Headquarters Building infrastructure projects are generally funded from the

Infrastructure Improvement Fund. There are no restrictions on the monies remaining in this Enterprise Fund that would prohibit this transfer to the Infrastructure Improvement Fund.

Proposal

Staff is requesting Board approval to close the following funds and transfer the remaining residual balance to the proposed funds as described in the table below:

Proposed Fund To Be Closed	Remaining Residual Balance To Be Transferred	Proposed Fund To Receive Residual Balance*
Air Quality Studies Fund	\$ 16,388.38	Health Effects Research Fund
Asthma and Brain Cancer Research Fund	\$ 100,070.40	Health Effects Research Fund
Clean Fuels Conference Fund	\$ 103,776.91	Clean Fuels Fund
Hydrogen Fueling Station Fund	\$ 8,126.49	Clean Fuels Fund
Prop 1B Funding – Lower Emission School Bus	\$ 207.00	General Fund
Compressed Natural Gas (CNG) Fueling Station Fund	\$ 1,244,350.01	Infrastructure Improvement Fund
Total	\$ 1,472,919.19	

* Including any further residual interest credited to the closed fund.

In addition, staff is requesting that any further residual interest credited to the closed funds be recognized in the proposed receiving funds.

Resource Impacts

All funds transferred will require future Board approval before being spent from the proposed receiving funds, therefore there is no net resource impact to SCAQMD.

Attachment

List - SCAQMD Fund Balances as of June 30, 2017

SCAQMD Fund Balances (As of June 30, 2017)

Fund #	Fund Title	Cash Balance	Encumbrance/Board Approved Obligations	Remaining Spendable Balance	Description/Notes
1	GENERAL FUND	\$53,697,862.76	(\$10,423,165.78)	\$43,274,696.98	Primary Operating Fund of SCAQMD and is used to record transactions relating to its general business operations.
2	INFRASTRUCTURE IMPROVEMENT FUND	\$2,402,709.48	(\$87,613.00)	\$2,315,096.48	Established in fiscal year 2013 to separately account for large-scale and/or multi-year infrastructure improvement projects.
4	457 PLAN ADMINISTRATION REVENUE SHARING FUND	\$15,025.53	-	\$15,025.53	Used to account for funds that, the 457 plan administrator, transfers to SCAQMD as part of a revenue-sharing agreement. After applicable expenses are paid, residual funds are returned to the 457 plan administrator to be distributed among participants based on an approved formula.
5	RETIREMENT BENEFIT TRUST FUND	\$13,236.07	-	\$13,236.07	Used to account for funds contributed by SCAQMD and interest earned on its principal for the payment of medical, dental and burial costs upon retirement of SCAQMD employees who are members of the Los Angeles County Employees Retirement Association (LACERA). It operates as a cost-sharing multi-employer defined benefit Other Post Employment Benefit plan.
7	DEBT SERVICE FUND	\$3,082,913.95	-	\$3,082,913.95	Established in 2009 to replace the terminated Guaranteed Investment Contract with the Municipal Bond Insurance Association (MBIA, Inc.) due to changes in financial markets. This is used for the defeasance of a portion of SCAQMD's debt service on Pension Obligation Bonds.
10	AIR QUALITY STUDIES	\$16,388.38	-	\$16,388.38	Used to account for contributions made by outside organizations to fund various air quality studies. An independent Planning Review Panel recommends the types of studies to be undertaken and the Executive Officer approves all studies prior to funding. The purpose of the studies is to quantify the cost effectiveness of air pollution control measures.
11	ACCOUNTING AGENCY FUND	\$106,409.11	-	\$106,409.11	Used to account for unidentified payments that require additional research before final disposition.
15	AIR TOXICS	\$5,683,204.27	-	\$5,683,204.27	Used to account for fees received from industrial toxic air emitters. These funds are spent on planning and performing health risk evaluations for the purpose of developing a toxic emissions inventory for the South Coast Air Basin.
17	ADVANCED TECHNOLOGY , OUTREACH, EDUCATION	\$949,050.03	(\$165,194.84)	\$783,855.19	Contributed amounts must be used to pay costs associated with SCAQMD-sponsored research and development in cleaner burning fuels and other advanced technologies and public outreach and education related to advanced technology and air pollution and its impacts.
20	AIR QUALITY ASSISTANCE	\$1,583,279.41	-	\$1,583,279.41	Used to account for funds set aside for the purpose of underwriting, guaranteeing, or otherwise participating in the provision of financial assistance to small businesses as required by Section 40448.7 of the California Health and Safety Code. (This legislation was repealed by its own terms January 1, 1999). In June 2000, the Governing Board authorized staff to revise the program to increase participation of small businesses. Certain revisions, including participation in the California Capital Access Program (CalCAP) to assist small businesses, were implemented in June 2001.
22	AIR QUALITY IMPROVEMENT	\$1,775,275.88	(\$93,790.00)	\$1,681,485.88	Used to account for 40% of the revenue received by the SCAQMD from motor vehicle registration fees under the provisions of Sections 44243 and 44244 of the California Health and Safety Code. This money is distributed on a quarterly basis to cities and counties within the South Coast Air Basin to implement programs to reduce air pollution from motor vehicles.

Fund #	Fund Title	Cash Balance	Encumbrance/Board Approved Obligations	Remaining Spendable Balance	Description/Notes
23	MOBILE SOURCES AIR POLLUTION REDUCTION	\$86,948,610.74	(\$52,470,097.65)	\$34,478,513.09	Used to account for 30% of the revenue received by SCAQMD from the motor vehicle registration fees under the provisions of Sections 44243 and 44244 of the California Health and Safety Code. This money is used to provide grants to fund projects for the purpose of reducing air pollution from motor vehicles within the South Coast Air Basin. Total projects to date amount to over \$406 million and over 13,000 tons of emissions reduced. This special fund was established in fiscal year 1992.
26	CLEAN FUELS CONFERENCE	\$103,776.91	-	\$103,776.91	Used to account for monies received to fund all Clean Fuels related conferences. These conferences are held to facilitate the development of hydrogen-powered technologies, including motor vehicles, refueling infrastructure, and stationary applications.
27	AIR QUALITY INVESTMENT	\$35,546,176.19	(\$903,597.50)	\$34,642,578.69	Used to account for multiple for special revenues from various sources, including Rule 1110.2, Rule 1111, Rule 1121, Rule 1147, Rule 2202, AB 118, and EO Mitigation.
31	CLEAN FUELS	\$48,774,318.72	(\$17,975,915.73)	\$30,798,402.99	Established as a special revenue fund in fiscal year 2000 to account for contract activities and revenues of the Clean Fuels Program. These are activities associated with implementing Clean Fuels stationary source and mobile source research, development, demonstration and deployment projects approved by the Governing Board. Since 1988, the Clean Fuels Program has provided funds for 1,259 projects totaling \$202.2 million.
32	CARL MOYER PROGRAM	\$38,768,932.71	(\$25,707,651.25)	\$13,061,281.46	Established in fiscal year 1999 to account for activities related to the administration of state funds set aside for the replacement of diesel-powered vehicles with cleaner-technology vehicles. It has funded over 10,000 vehicles and about 30 infrastructure/charging stations, totaling over \$400 million. It provides incentive funds for the replacement of diesel-fueled on- and off-road vehicles such as refuse haulers, heavy duty trucks, transit and school buses, construction equipment, and marine vessels.
33	LOWER - EMISSION SCHOOL BUS	\$8,892,455.59	(\$1,691,116.41)	\$7,201,339.18	Established in fiscal year 2001 to administer state funds set aside in the South Coast Air Basin for the replacement and retrofit of high-emitting diesel-fueled school buses. Between fiscal years 2000 and 2008, \$85 million of Lower Emissions School Bus funds were spent on the replacement of school buses, and the retrofit of newer diesel buses with PM traps. In total, nearly 500 old buses were replaced by brand new, primarily CNG school buses, and nearly 2,700 newer diesel school buses were retrofitted with PM traps. In addition, Lower Emissions School Bus Program provided funds to help school districts to install retrofit trap devices on 11 stationary back-up generators on or near school property.
34	ZERO EMISSION VEHICLE INCENTIVE	\$666,565.74	-	\$666,565.74	Established in fiscal year 2001 to administer the State funds set aside for the implementation of the Zero Emission Vehicle (ZEV) Incentive Program.
35	AES SETTLEMENT	\$1,028,737.55	(\$1,200.00)	\$1,027,537.55	Established in fiscal year 2001 for the purpose of accounting for the one-time penalty settlement with AES Corporation for air pollution violations.
36	RULE 1309.1 PRIORITY RESERVE	\$7,746,296.80	(\$2,873,802.52)	\$4,872,494.28	Established in fiscal year 2001 to account for mitigation fees paid for Particulate Matter ≤ 10 microns (PM ₁₀) credits. Due to the state energy crisis in 2001, Rule 1309.1 was amended to allow new electric generating facilities temporary access to SCAQMD's Priority Reserve Account to offset their PM ₁₀ emission increases provided that they meet specific criteria and pay appropriate mitigation fees.
37	CARB ERC BANK	\$593,806.50	-	\$593,806.50	Established in fiscal year 2001 to account for the proceeds from the issuance of the Emission Reduction Credits (ERCs) to natural gas turbine power plant peaker units. CARB established the ERC Bank for peaker power plants that need emission offsets to add new or expanded capacity. Proceeds from the issuance of these ERCs will fund emission reduction programs where the new or expanded facility is located.

Fund #	Fund Title	Cash Balance	Encumbrance/Board Approved Obligations	Remaining Spendable Balance	Description/Notes
38	LADWP SETTLEMENT	\$395,709.80	-	\$395,709.80	Established in fiscal year 2001 for the purpose of accounting for the monies received from the Los Angeles Department of Water and Power as part of the settlement agreement.
39	STATE EMISSIONS MITIGATION	\$4,448,017.88	-	\$4,448,017.88	Established during fiscal year 2002 to account for the funds received from California Air Resources Board (CARB) to fund CARB selected projects on emission reductions within the South Coast Air Basin. This is in response to the Governor's statewide program to mitigate excess emissions from peaker power generation units to alleviate the power crisis in California.
40	NATURAL GAS VEHICLE PARTNERSHIP	\$473,179.09	(\$215,940.00)	\$257,239.09	Established during fiscal year 2002 for creation of the Natural Gas Vehicle Partnership to facilitate the advancement of natural gas vehicle technology and deployment. The contributions received from participating members are accounted for in this fund as well as the expenditures for activities and projects selected by the Partnership.
41	STATE BUG PROGRAM	\$353,201.61	-	\$353,201.61	Established in fiscal year 2003 to account for the funds received from CARB's Diesel-Fueled Electrical Backup Generator Emissions Mitigation Program. This program funds emission related projects as part of an ongoing effort to expeditiously reduce public exposure to air toxics and other pollutants.
42	ASTHMA & BRAIN CANCER RESEARCH	\$100,070.40	-	\$100,070.40	Established in fiscal year 2003 to assist in funding research projects relating to asthma and outdoor air quality and the potential link between air pollution and brain cancer.
43	DRY CLEANERS FINANCIAL INCENTIVE GRANT	\$575,555.63	-	\$575,555.63	Established in fiscal year 2003 to provide financial incentives to dry cleaners to purchase non-toxic alternative dry cleaning equipment.
44	RULE 1173 MITIGATION FEE	\$3,016,401.04	-	\$3,016,401.04	Established in fiscal year 2004 to account for Rule 1173 mitigation fee payments to be used in funding air quality projects which directly benefit the community surrounding the facility. Amendments in December 2002 to Rule 1173 for Refineries and Chemical Plants established a mitigation fee payment provision relating to the release of Volatile Organic Compound (VOC) from an atmospheric Pressure Relief Device (PRD).
45	CBE / OCE SETTLEMENT	\$223,320.40	-	\$223,320.40	Established in FY 2004 as part of the settlement agreement to fund P _{M10} (Particulate Matter ≤ 10 microns) and/or N _{ox} (Oxides of Nitrogen) reduction projects in disproportionately impacted areas.
46	BP ARCO SETTLEMENT	\$12,644,739.88	(\$38,444.92)	\$12,606,294.96	Established in fiscal year 2005 to account for the \$25 million civil penalties received in 2005 as part of the settlement with BP ARCO for air pollution violations.
48	HEALTH EFFECTS RESEARCH	\$784,344.53	-	\$784,344.53	The Health Effects Research Fund was established in fiscal year 2008 to receive 20% of all penalty/settlement monies in excess of \$4 million recognized annually in SCAQMD's General Fund beginning in fiscal year 2009, subject to annual Board approval.
49	CEQA GREEN HOUSE MITIGATION	\$187,007.47	(\$65,029.07)	\$121,978.40	This fund was established in fiscal year 2009 under Rule 2702 for Green House Gas (GHG) emission reductions. It received \$1.5 million from Chevron Products Company to offset Green House Gas emission as part of its Product Reliability and Optimization (PRO+) Project Mitigation Monitoring Plan.
52	TRAPAC SCHOOL AIR FILTRATION	\$1,335,372.77	(\$669,758.12)	\$665,614.65	This fund was established in fiscal year 2011 and received \$6,000,000 from City of Los Angeles towards installation and maintenance of air filtration systems for schools in the Wilmington area that were impacted by the expansion of the TraPac Container Terminal Project.
53	EMISSION REDUCTION AND OUTREACH	\$593.72	(\$7,500.00)	(\$6,906.28)	This fund was established in fiscal year 2010 due to a \$1,000,000 Supplemental Environmental Project Settlement. These funds are used to enhance compliance of emission reduction policies by providing source education and consumer education.

Fund #	Fund Title	Cash Balance	Encumbrance/Board Approved Obligations	Remaining Spendable Balance	Description/Notes
54	RULE 1118 MITIGATION	\$22,622,291.95	(\$17,818.00)	\$22,604,473.95	Established in fiscal year 2010 to account for mitigation fees from petroleum refineries that exceed sulfur dioxide emission thresholds from flares and future Rule 1118 mitigation fees and to track the projects funded through these fees.
55	HYDROGEN FUELING STATION	\$8,126.49	-	\$8,126.49	Established in fiscal year 2011 to recognize co-funding from the Department of Energy-National Renewable Energy Laboratory, CARB and CEC, for the maintenance and operation of the City of Burbank hydrogen fueling station and for maintenance and data management services for the hydrogen fueling station at SCAQMD headquarters.
56	HEROS II	\$3,741,993.68	(\$845,531.13)	\$2,896,462.55	Established in fiscal year 2011, this fund is used to track funds received and expenditures for SCAQMD's vehicle scrap and replacement program. This voluntary program reduces emissions from high-emitting light and medium-duty vehicles in SCAQMD.
57	EL MONTE PARK PROJECT	\$922,962.64	(\$911,664.14)	\$11,298.50	Established in fiscal year 2011 for the purpose of accounting for the monies received from Gregg Industries bankruptcy estate as part of a settlement agreement to finance the construction of park improvements in the City of El Monte.
58	AB 1318 MITIGATION FEES	\$27,921,617.27	(\$25,627,087.94)	\$2,294,529.33	Created in fiscal year 2011 to account for revenue of \$53.3 million from a mitigation fee payment for the transfer of emission credits under AB 1318.
59	VIP	\$861,421.68	-	\$861,421.68	Established in fiscal year 2012 due to transfer of funds from the Carl Moyer Multidistrict funds originally recorded in Carl Moyer Program Fund, to separately administer the On-Road Heavy-Duty Vehicle Voucher Incentive Program.
61	ADVANCED TECHNOLOGY GOODS MOVEMENT	\$11,222,857.47	(\$8,813,977.00)	\$2,408,880.47	Established in fiscal year 2012 to administer funds received through an agreement with Port of Los Angeles and Port of Long Beach to fund projects consistent with the development and demonstration of zero emissions goods movement technologies, including the demonstration of Linear Synchronous Motor (LSM) technology to move cargo containers and the development of two discrete hybrid electric drive systems for heavy-duty vehicles.
62	RULE 1470 RISK REDUCTION FUND	\$2,445,316.05	-	\$2,445,316.05	Established in fiscal year 2012 to help fund control equipment costs for public agencies, such as cities, counties, and schools, required to install control equipment on new emergency standby engines in order to comply with Rule 1470.
63	HYDROGEN FUELING INFRASTRUCTURE	\$13,053,637.50	(\$6,228,390.79)	\$6,825,246.71	Established in fiscal year 2014 to receive state and federal grant revenue earmarked for hydrogen infrastructure upgrades to support the expected role out of fuel cell cars in the next few years. In fiscal year 2014, the SCAQMD received an award for \$6.9 million from the California Energy Commission (CEC) to upgrade and refurbish existing hydrogen stations in the South Coast Air Basin. Three stations in Burbank, LAX, and Torrance have been funded for upgrade through this grant, with these upgrades to be completed by the end of 2017.
64	RULE 1420.1 SPECIAL REVENUE FUND	\$89,726.90	-	\$89,726.90	Established in fiscal year 2014 to account for monies received from Exide Technologies and Quemetco to finance the Multi-Metals continuous emission monitoring system (CEMS) and continuous Multi-Metals Ambient Air Monitoring Demonstration Programs.
65	BP/SCAQMD PUBLIC BENEFITS OVERSIGHT	\$185,251.37	(\$43,000.00)	\$142,251.37	Established to receive remaining unspent \$177,802 from the 2005 BP Settlement Agreement public benefits payments. Funds will continue to be expended through the approval of the BP/SCAQMD Public Benefits Oversight Committee.
66	RULE 1304.1 SPECIAL REVENUE FUND	\$7,432,843.77	-	\$7,432,843.77	Established in fiscal year 2016 to track the deposit of fees paid and the withdrawal of funds for approved projects, pursuant to Rule 1304.1 – Electrical Generating Facility Fee for Use of Offset Exemption.
67	GHG REDUCTION PROJECTS	\$6,146,021.73	(\$4,501,148.00)	\$1,644,873.73	Established in fiscal year 2016 to account for the projects funded by CARB's Low Carbon Transportation Green House Gas Reduction Fund Investments.

Fund #	Fund Title	Cash Balance	Encumbrance/Board Approved Obligations	Remaining Spendable Balance	Description/Notes
68	EXXON MOBILE SETTLEMENT PROJECTS	\$2,787,930.81	-	\$2,787,930.81	Established in fiscal year 2016 for the purpose of accounting for the monies received pursuant to a settlement agreement with ExxonMobil for Supplemental Environmental Project (SEP).
69	LADWP VARIANCE SPECIAL REVENUE FUND	\$1,504,014.16	-	\$1,504,014.16	This fund was established in November 2016 to receive environmental fees from LADWP as part of an SCAQMD Hearing Board variance
71	CNG FUELING STATION ENTERPRISE FD.	\$1,244,350.01	-	\$1,244,350.01	<u>Compressed Natural Gas (CNG) Fueling Station Fund</u> - Established during fiscal year 2002 to administer all activities, transactions, and funding relating to the public and SCAQMD's use of CNG fueling facilities at SCAQMD's headquarters. The fueling station helps accommodate the growing number of alternative-fuel vehicle fleets. In fiscal year 2015-16, the CNG Station was sold.
75	AIR FILTRATION FUND	\$625,133.34	-	\$625,133.34	This fund was created in March 2017 to recognize money from BNSF for SEP projects related to air filtration.
76	SOCAL GAS SETTLEMENT FUND	\$1,175,000.00	(\$175,000.00)	\$1,000,000.00	This fund was created in March 2017 to receive settlement money from So Cal Gas to be used for funding a projects to convert biosolids to natural gas.
80	CMP AB923	\$145,641,169.06	(\$102,520,867.46)	\$43,120,301.60	Established in fiscal year 1999 to account for activities related to the administration of state funds set aside for the replacement of diesel-powered vehicles with cleaner-technology vehicles. It has funded over 10,000 vehicles and about 30 infrastructure/charging stations, totaling over \$400 million. It provides incentive funds for the replacement of diesel-fueled on- and off-road vehicles such as refuse haulers, heavy duty trucks, transit and school buses, construction equipment, and marine vessels.
81	PROP 1B FUNDING-GOODS MOVEMENT	\$104,227,651.66	(\$41,810,093.82)	\$62,417,557.84	Established in fiscal year 2008 to provide additional funding for the Carl Moyer Program from an adjustment to the tire fee, and authorizes local air districts to increase motor vehicle registration fees by up to \$2 for programs to reduce air pollution. AB 923 has expanded the Carl Moyer incentive program to include agricultural sources of air pollution as well as buses, cars and on and off-road equipment. The program targets nitrogen oxide hydrocarbon, and particulate matter pollution reductions. About \$4 million per year in AB 923 funds are used to fund projects as match requirement to the Carl Moyer Program.
82	PROP 1B FUNDING-LOWER EMISSIONS SCHOOL BUS	\$207.00	-	\$207.00	This fund was established in fiscal year 2008 to account for voter approved transportation bond dollars. A portion of these were allocated to CARB and passed through to SCAQMD to implement programs that reduce emissions from movement of freight or "goods" along California's trade corridors. About 1,500 new diesel and LNG drayage trucks were funded at the Ports of Los Angeles and Long Beach for about \$75 million in Proposition 1B-Goods Movement Program funds and \$27 million in other funds that were only used for the LNG trucks. In addition, about 3,000 non-drayage trucks have been funded for about \$140 million in Proposition 1B-Goods Movement Program funds. In fiscal year 2014-15, over \$70 million was awarded for replacement of more than 1,600 goods movement trucks.
TOTAL SCAQMD FUNDS		\$676,792,071.08	(\$304,884,395.07)	\$371,907,676.01	



BOARD MEETING DATE: September 1, 2017

AGENDA NO. 11

PROPOSAL: Approve Contract Awards and Modification and Issue Solicitation Approved by MSRC

SYNOPSIS: The MSRC previously released an RFP to solicit technical advisor services. The MSRC unanimously awarded the contract to Raymond Gorski as part of their FYs 2016-18, 2018-19, and 2019-20 AB 2766 Discretionary Fund Work Programs. Additionally, as part of their FYs 2016-18 Work Program, the MSRC approved new contracts under the Major Event Center Transportation and Natural Gas Infrastructure Programs. The MSRC also approved a modification to a contract under the Near-Zero Engine Incentive Program as part of their FYs 2014-16 Work Program, and the release of an Invitation to Negotiate for a Local Government Partnership Program as part of their FYs 2016-18 Work Program. At this time the MSRC seeks Board approval of the contract awards and modification and to release the solicitation.

COMMITTEE: Mobile Source Air Pollution Reduction Review, August 17, 2017, Recommended for Approval

RECOMMENDED ACTIONS:

1. Approve contract award totaling \$350,000 to Raymond Gorski for technical advisor services for a 27-month term beginning October 1, 2017 and ending December 31, 2019, as described in this letter and as follows:
 - a. 75% of the contract amount, or \$262,500, to be divided proportionally between the FYs 2016-18 Work Program, the FY 2018-19 Work Program, and the FY 2019-20 Work Program (\$87,500 to FYs 2016-18 Work Program, \$116,667 to FY 2018-19 Work Program, and \$58,333 to FY 2019-20 Work Program); and
 - b. 25% of the contract amount, or \$87,500, divided proportionally between the FYs 2017-18, 2018-19, and 2019-20 Administrative Budgets (\$29,167 from the FY 2017-18 Budget, \$38,889 from the FY 2018-19 Budget, and \$19,444 from the FY 2019-20 Budget).
 - c. Authorize the MSRC the authority to incorporate and exercise an option clause in the contract with Raymond Gorski for an additional two-year term for services

from January 1, 2020 to December 30, 2021, subject to funding approval by the MSRC and SCAQMD Governing Board at a later date;

2. Approve contract award to Foothill Transit in an amount not to exceed \$100,000 to provide special transit service to the Los Angeles County Fair for 2017 and 2018 under the Major Event Center Transportation Program, with funding for the second year contingent upon an assessment of the first year's performance, as part of approval of the FYs 2016-18 Work Program, as described in this letter;
3. Approve contract award to Penske Truck Leasing in an amount not to exceed \$82,500 for maintenance facility modifications and technician training under the Natural Gas Infrastructure Program, as part of approval of the FYs 2016-18 Work Program, as described in this letter;
4. Approve modified contract with Omnitrans under the Near-Zero Engine Incentive Program, substituting the re-power of 39 buses with near-zero engines for the purchase of 39 buses equipped with near-zero engines, as part of approval of the FYs 2014-16 Work Program, as described in this letter;
5. Issue Program Opportunity Notice/Invitation to Negotiate for the Local Government Partnership Program, as part of approval of the FYs 2016-18 Work Program, with a targeted funding level of \$21,180,650, as described in this letter and in the attached;
6. Authorize MSRC the authority to adjust contract awards up to five percent, as necessary and previously granted in prior work programs; and
7. Authorize the Chairman of the Board to execute new and modified contracts under FYs 2014-16, 2016-18, 2018-19 and 2019-20 Work Programs, as described above and in this letter.

Greg Pettis,
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 subvented 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.

In October 2016, the MSRC selected initial categories for the FYs 2016-18 Work Program. At its August 17, 2017 meeting, the MSRC considered recommended awards under the Natural Gas Infrastructure and Major Event Center Transportation Programs, as well as an award for Technical Advisor services. The MSRC also considered the issuance of a solicitation for the Local Government Partnership Program, and a

modification to a contract under the Near-Zero Engine Incentive Program. 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 Invitation to Negotiate (ITN) will be 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 solicitation will be advertised in the Desert Sun newspaper for expanded outreach in the Coachella Valley. Public notices advertising the Natural Gas Infrastructure and Major Event Center Transportation Programs and Technical Advisor services were likewise published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, Riverside County Press Enterprise, and Desert Sun newspapers.

Additionally, potential bidders may be and past bidders may have been notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the solicitation will be and notice of past 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 solicitation will be and past solicitations were posted on the MSRC's website at <http://www.cleantransportationfunding.org> and electronic notifications will be and past electronic notifications were sent to those subscribing to this website's notification service.

Proposals

At its August 17, 2017 meeting, the MSRC considered recommendations from its MSRC-TAC and approved the following:

Technical Advisor Services

The MSRC retains an independent contractor to provide technical assistance in support of the Work Program. In June 2017, the MSRC released an RFP for technical advisor services. The RFP established the following scoring criteria: Technical Qualifications/Experience; Technical Approach; Proposed Cost; and Past Performance. Two proposals were received by the closing date of July 13, 2017. Proposals were evaluated by a panel of members of the MSRC-TAC. The MSRC awarded a contract to Raymond Gorski for a 27-month term beginning October 1, 2017 and ending December 31, 2019. The contract will also include an option clause to be exercised at the MSRC's discretion, for a subsequent two-year term which would include a 3.8% increase, subject to funding approval by the SCAQMD Board at a later date. Funding specifics for the first 27-month term are as follows:

- a. 75% of the contract amount, or \$262,500, to be divided proportionally between the FYs 2016-18 Work Program, the FY 2018-19 Work Program, and the FY 2019-20 Work Program (\$87,500 to FYs 2016-18 Work Program, \$116,667 to FY 2018-19 Work Program, and \$58,333 to FY 2019-20 Work Program); and

- b. 25% of the contract amount, or \$87,500, divided proportionally between the FYs 2017-18, 2018-19, and 2019-20 Administrative Budgets (\$29,167 from the FY 2017-18 Budget, \$38,889 from the FY 2018-19 Budget, and \$19,444 from the FY 2019-20 Budget).

FYs 2016-18 Major Event Center Transportation Program (PA2017-05)

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 \$1,337,494. The MSRC considered recommendations concerning an additional application submitted by Foothill Transit. Foothill Transit requested the MSRC to consider an award of \$100,000 to provide special transit service to the Los Angeles County Fair in 2017 and 2018. Service would be provided from the Azusa Gold Line Station on Saturdays and Sundays during the Fair, as well as the Labor Day holiday on September 4, 2017, providing service from one hour prior to the Fair opening and with the last bus departing 40 minutes following the Fair's closure at midnight. Service would promote the use of public transit, including bus and (by connection) rail, in lieu of personal automobile. Foothill Transit and the LA County Fair would contribute at least \$100,000 in co-funding. The MSRC approved a contract award to Foothill Transit in an amount not to exceed \$100,000 with the funding for the second year contingent upon an assessment of the first year's performance and requiring the collection of sufficient data to help determine the effectiveness of the project as part of the FYs 2016-18 Work Program.

FYs 2016-18 Natural Gas Infrastructure Program

The MSRC approved 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, 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 30, 2018. To date, the MSRC has received one application in response to this solicitation. The MSRC approved a contract award to Penske Truck Leasing in an amount not to exceed \$82,500 for maintenance facility modification and technician training as part of the FYs 2016-18 Work Program.

FYs 2014-16 Near-Zero Engine Incentive Program

In December 2016, the MSRC approved an award to Omnitrans in an amount not to exceed \$945,000 for the purchase of 39 new buses and the re-power of 24 existing buses with engines meeting the California Air Resources Board's 0.02 g/bhp-hr Optional Standard for NOx. Omnitrans has subsequently determined that it would be more cost-effective for them to substitute the re-power of 39 buses for the 39 bus purchases, for a total of 63 re-powers. For transit buses, the MSRC's "Near-Zero" Engine Incentive Program provides \$15,000 per engine regardless of whether the new engine is equipped in a new bus, or is installed in an existing bus. There would be no change in the emissions reductions associated with the project, or its air quality cost-effectiveness. The MSRC considered and approved Omnitrans' requested contract modification.

FYs 2016-18 Local Government Partnership Program

The MSRC approved release of Local Government Partnership PON2018-01 under the FYs 2016-18 Work Program. The 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. All participating jurisdictions will also need to present a brief educational presentation concerning the 2016 AQMP, as provided by the MSRC, to their Council or Board. The ITN includes an open application period commencing with its release on September 1, 2017, and closing March 2, 2018, and projects will be brought to the MSRC for consideration of awards throughout and immediately following the application period.

At this time, the MSRC requests the SCAQMD Board to approve the contract awards and modification and to approve release of the ITN as part of approval of the FYs 2014-16, 2016-18, 2018-19 and 2019-20 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.

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, as well as any contracts awarded in response to the solicitation, will be drawn from this fund.

Attachment

Program Opportunity Notice & Invitation to Negotiate PON2018-01 – Local Government Partnership Program



Announcing the MSRC's Clean Transportation Funding™

***2017 Local Government
Partnership Program***

**A Funding Partnership with Cities & Counties to “Jumpstart”
Implementation of the
SCAQMD's 2016 Air Quality Management Plan**

Program Opportunity Notice & Invitation to Negotiate

PON2018-01

September 1, 2017

I INTRODUCTION

Since the inception of the MSRC's Clean Transportation Program more than 25 years ago, significant progress has been made in reducing emissions from motor vehicles, especially as it pertains to vehicle exhaust emissions. Emissions from motor vehicles, including light, medium, and heavy-duty vehicles, are on the order of 90% cleaner today as compared to 25 years ago, and overall air quality has improved measurably within the South Coast AQMD.

While measureable progress has been made in reducing vehicle emissions, the South Coast region still fails to meet federally mandated air quality standards. These standards for smog-forming pollutants will become even stricter by year 2023 – only eight years away. According to the South Coast AQMD, air pollutant emissions must be reduced by an additional 75% in order to meet the 2023 federal ozone standard.

While our air quality challenges are daunting, a roadmap to achieve these mandated reductions in smog-forming pollutants exists. The 2016 Air Quality Management Plan (AQMP) is the regional blueprint for achieving the federal air quality standards for healthful air.

The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and incentives that encourage the accelerated transition to cleaner vehicles and mobility strategies. As a means to “jumpstart” the awareness of, and, most importantly, the implementation of proven air quality improvement measures as outlined in the 2016 AQMP, the MSRC is offering to partner directly with cities and counties within the South Coast AQMD on a new, innovative **Local Government Partnership Program**. This new program emphasizes an accelerated transition to zero and near-zero vehicles along with essential supporting infrastructure.

The Local Government Partnership Program represents an evolution of prior MSRC programs such as the Local Government Match Program. While the Local Government Match Program was successfully implemented for over 17 years, the new Local Government Partnership Program seeks to improve upon the prior program in the following ways:

- Increases participation of cities and counties within the South Coast District – while both the prior Local Match and the new Partnership Program are voluntary, the Local Government *Partnership* Program ***SETS ASIDE A PRO-RATA SHARE OF MSRC FUNDING FOR EACH CITY AND COUNTY WITHIN THE SOUTH COAST AQMD WHO PARTICIPATE IN THE AB 2766 MOTOR VEHICLE REGISTRATION FEE PROGRAM.***
- Directly supports implementation of the South Coast District's 2016 AQMP by ***FOCUSING MSRC INVESTMENTS ON AQMP MEASURES.***
- Educates local government leadership on our air quality challenges and the regional blueprint for achieving healthful air for all residents.
- Leverages other sources of available funding

This document explains - step by step – how to partner with the MSRC and secure funding to implement clean air projects in your jurisdiction. It is designed to place a minimum administrative burden on local government staff while having the necessary safeguards built in to ensure integrity of the AB 2766 motor vehicle registration fee programs. Each city and county that chooses to accept the MSRC's partnership offer will be directly

supporting the South Coast District's AQMP measures and will contribute a direct and tangible air pollution reduction benefit to our region.

II PARTNERSHP OPPORTUNITY

The purpose of this Program Opportunity Notice and Invitation to Negotiate is to partner with cities and counties that already participate in the AB 2766 Subvention Fund Program and to offer MSRC Clean Transportation Funding, also known as AB 2766 Discretionary Funding, as a means to leverage both funds to implement 2016 AQMP measures.

This Local Government Partnership Program is unique in that it is not a competitive procurement – the MSRC has already set aside a pro-rata funding amount for each city and county to participate. This funding allocation is based upon the amount of AB 2766 Subvention Funds each jurisdiction receives, subject to an adjustment factor explained below. Note that AB 2766 Subvention Funds are distributed on a *population basis* as opposed to the number of vehicle registrations within a given jurisdiction.

The 2016 South Coast AQMP places a strong emphasis on accelerating the transition to zero and near-zero motor vehicles. For that reason, this funding opportunity from the MSRC has a focus on zero and near-zero emission vehicles and their supporting infrastructure. However, the MSRC recognizes that smaller jurisdictions that receive a relatively smaller AB 2766 funding allocation may not be positioned to pursue a zero emission fleet transition at this time. For this reason, the MSRC affords smaller jurisdictions greater flexibility to pursue air quality improvement strategies in addition to zero and near-zero emission vehicles and infrastructure. This is explained in subsequent sections of the Program Opportunity Notice.

In addition to the direct air quality benefits that will be achieved through participation in the MSRC Local Government Partnership Program, the MSRC also wants to use this opportunity as a means to educate local governments on the MSRC's mission, the SCAQMD's 2016 AQMP and its air quality improvement measures, and to increase awareness of other sources of incentive funding available to leverage AB 2766 funds and local jurisdictions' general funds to further and more rapidly implement the SCAQMD's clean air roadmap. Thus, a key element of the Local Government Partnership Program is the Education component. Working together, the MSRC and local governments can leverage local, state, and federal funding opportunities to more broadly and more rapidly realize the goals of the 2016 AQMP on a broad, regional basis.

A. How the MSRC Funding is Allocated

MSRC Funding available under the Local Government Partnership Program is allocated to cities and counties on a population basis, subject to the following modifications:

- Cities and Counties that receive an annual allocation of AB 2766 Subvention Funds less than \$50,000 are eligible to receive an MSRC Partnership match of \$50,000. Thus, the MSRC increases the amount of funding for small jurisdictions to ensure sufficient funds are available to implement a meaningful air pollution reduction project(s);
- Larger jurisdictions that receive a population-based AB 2766 Subvention Fund allocation greater than or equal to \$50,000 are eligible to receive a "dollar for dollar" MSRC funding allocation;

- The maximum amount of funding any single city or county will receive from the MSRC is \$3,000,000; thus, the MSRC Partnership match is capped at \$3M.

B. Eligible Project Categories

The following are the eligible project types for which an MSRC Funding contribution can be sought by participating cities and counties. Note that there are two categories of eligible projects – those for cities and counties that are eligible to receive MSRC funding at the \$50,000 level, and those cities and counties with larger populations that are eligible to receive a greater pro-rata funding share.

1. Cities and Counties Eligible for an MSRC Funding Contribution Greater than \$50,000: Cities and counties with larger populations are required to propose projects related to the purchase and/or support of zero and near-zero emission vehicles. The following are eligible project categories:
 - **Light-duty Zero Emission Vehicle Purchases or Leases** – This supports cities’ and counties’ acquisition of zero emission light duty fleet vehicles, including battery-electric and fuel cell vehicles. MSRC funding can be used to fund up to a maximum of 50% of a qualifying vehicle’s net¹ purchase price, or up to \$10,000 per vehicle, whichever is less. For the purpose of this eligible project category, “light-duty” is defined as having a gross vehicle weight rating (GVWR) of 8,500 pounds or less.
 - **Medium & Heavy-Duty Zero Emission Vehicle Purchases** – This supports cities and counties in acquiring medium and heavy-duty fleet vehicles, including utility vehicles, transit-style electric buses, etc. MSRC funding can be used to fund up to a maximum of 50% of a qualifying vehicle’s net purchase price, or up to \$100,000 per vehicle, whichever is less. For the purpose of this eligible project category, vehicles must have a GVWR of 8,501 pounds or greater.
 - **Near-Zero Emission Heavy-Duty Alternative Fuel Vehicle Purchases & Repowers** - This supports cities and counties in acquiring heavy-duty fleet vehicles equipped with an engine certified by the California Air Resources Board to the Optional NOx standard of 0.02 g/bhp-hr. MSRC funding can be used to fund up to a maximum of 50% of a qualifying vehicle’s net purchase price, or up to \$25,000 per vehicle, whichever is less. For the purpose of this eligible project category, vehicles must have a GVWR of 14,001 pounds or greater.
 - **Electric Vehicle Charging Infrastructure (EVSE) Installation** – including the costs to purchase and install EVSE to support increasing numbers of electric and plug-in hybrid vehicles. For the purpose of this eligible category, the MSRC will contribute:
 - Up to 50% of the total EVSE cost for private access EVSE, which is for the dedicated use of the proposing entities(s), and;
 - Up to 75% of the cost of publicly accessible EVSE.
 - **Alternative Fuel Refueling Infrastructure New Construction or Expansion** - including the costs to purchase and construct natural gas or hydrogen refueling infrastructure, including expansion of

¹ Purchase price after any manufacturer, federal, and State rebates and incentives

existing natural gas or hydrogen refueling infrastructure, to support low-emission and near-zero natural gas vehicles and zero emission fuel cell vehicles. For the purpose of this eligible category, the MSRC will contribute:

- Up to 25% of the total cost for private access refueling infrastructure, up to a maximum MSRC contribution of \$350,000 per station, and;
- Up to 50% of the cost of publicly accessible refueling infrastructure, up to a maximum MSRC contribution of \$500,000 per station.

2. Cities & Counties Eligible for a Maximum MSRC Funding Contribution of \$50,000: Cities and counties with smaller populations as described in Section A may propose to implement any of the zero and near-zero vehicle and infrastructure eligible projects discussed under subsection 1., above. In addition, smaller jurisdictions are also entitled to request MSRC funds for the following additional eligible project categories:

- **Traffic Signal Coordination and Synchronization Projects** – including arterial corridor traffic signal coordination, multi-jurisdictional traffic signal coordination, adaptive onramp metering, and expansion and limited upgrades to existing traffic management/operations centers.
- **Bicycle Active Transportation Projects** – including the following bicycle projects: a) Class I, II, and IV bicycle facility installations; b) Bike share programs; c) Bicycle detection system installations at intersections; d) Bike stations, including bicycle lockers and racks; and e) Bicycle Campus projects.
- **First Mile/Last Mile Strategies** – This category is limited to transportation strategies that provide transportation connectivity options to increase utilization of public transportation for the benefit of the general public. Note that this category is not intended to support employee rideshare programs.

When implementing a project(s) from this subsection, jurisdictions are required to provide total project co-funding of at least 50%.

C. Match Funding Requirements – Project Contributions from Participating Cities & Counties

As noted above, the MSRC will contribute a portion of an eligible project’s total cost – the balance of a project’s cost must be borne by the participating city or county. It is the express desire of the MSRC that participating cities and counties use – to the maximum extent possible – their AB 2766 Subvention Funds as a match to MSRC funds. However, there is no restriction on the source of match funding brought to a project by a participating city or county.

Also, the MSRC encourages participating cities and counties to seek additional sources of incentive funding to augment project implementation. Multiple incentive programs are available at the local, state, and federal level to support the acquisition of zero and near-zero emission vehicles. The goal is to leverage additional funding sources to accelerate implementation of AQMP measures. A listing of relevant additional funding sources can be found on the MSRC’s website at www.cleantransportationfunding.org.

III LOCAL GOVERNMENT PARTNERSHIP/AQMP JUMPSTART PROGRAM - REQUIREMENTS & CONDITIONS

The MSRC's Local Government Partnership Program has been designed to reduce administrative burdens on city and county staff while ensuring conformance to all applicable SCAQMD regulations and MSRC policies. The following requirements and conditions apply to each city and county that chooses to participate in the AQMP Jumpstart Program:

1. **Earliest Date for an MSRC Co-funded Project to Commence** – The release date of this Invitation to Negotiate, September 1, 2017, is the earliest date work on a project can commence and be potentially eligible for MSRC funding. *This only applies to project implementation costs for which MSRC funding is sought – previous coordination planning or other project components conducted using other funding sources are not subject to this requirement.*

Please note that any expenditure made in anticipation of an award of MSRC funding prior to contract execution is solely at the applicant's risk. If no contract is executed, neither the MSRC nor SCAQMD is liable for payment of any funds expended in anticipation of a contract. Please note that in the event a contract is executed, reimbursement for any costs incurred by the proposer in anticipation of the contract is at the discretion of the MSRC and SCAQMD.

2. **Eligibility Requirements** – Cities and counties that have opted in to the AB 2766 Subvention Fund motor vehicle registration fee program are eligible to participate in the MSRC's Local Government Partnership Program. The South Coast AQMD has predetermined the eligibility status of each city and county within the South Coast region. The SCAQMD is the responsible public agency for the disbursement of AB 2766 Subvention Fund revenues.
3. **Partnering with Other Jurisdictions** - Teaming by cities and/or counties, and the pooling of MSRC Local Government Partnership funds is allowable as a means to implement joint projects of mutual benefit to the participating jurisdictions. Please note that a lead team member must be designated for the purpose of application submittal and contracting. If desired, multiple cities and/or counties may form a Joint Powers Authority (JPA) for the purpose of application submittal and contracting. Please note that all members of the JPA must meet the eligibility requirements of the preceding paragraphs. A letter designating the lead agency and authorizing such agency to act on behalf of a jurisdiction's interests must be submitted from each participating city and/or county as an element of the project application.
4. **Project Completion Deadlines** – All projects should be designed such that they can be fully implemented within 60 months of contract execution.
5. **Reporting Requirements** – The reporting requirements established for the Program are intended to ensure adequate monitoring of the use of public funds, while avoiding the imposition of excessive reporting burdens on the funding recipients. Individual reporting requirements will be a function of the type of project proposed; however, reporting typically includes quarterly progress reports as well as a concise Final Report.
6. **Audit Requirements** – In accordance with state law, all projects funded with MSRC **Clean Transportation Funding™** are subject to audit. It is highly recommended that applicants employ standard government accounting practices when administering their MSRC co-funded project.

7. Additional Requirements & Conditions on MSRC Local Government Partnership Program Funding

- Projects funded under the MSRC Local Government Partnership Program are not eligible to receive additional MSRC funds under any other current or future MSRC Work Program solicitation;
- Projects awarded MSRC funding under a previous Work Program are not eligible to receive additional MSRC funding under this Program;
- MSRC funding over and above the original contract amount will not be available for any reason, including project cost overruns. Participating cities, counties, and JPAs must use funding sources other than MSRC funds to cover foreseen or unforeseen project cost increases;
- Project management costs necessary to implement demonstration projects are allowable; however, the MSRC reserves the right to reduce or delete project management costs that appear excessive;
- MSRC funds will be distributed on a reimbursement basis upon completion of the approved project milestone and submittal of all required reports and invoices;
- Certificate of Insurance or Letter of Self Insurance - All cities, counties, and JPAs that accept an MSRC funding award must provide a Certificate of Insurance or Letter of Self Insurance within 45 days of notification of a funding award.

IV HOW TO PARTICIPATE – STEP BY STEP INSTRUCTIONS

In order to participate in the MSRC Local Government Partnership Program, jurisdictions must complete the following Program Application steps:

1. **Participate in the MSRC Hosted Applicant Workshop/Webcast** – this webcast will explain in more detail the requirements to participate in the MSRC’s Local Government Partnership/AQMD Jumpstart Program. Note that participation in the webcast is *voluntary*; however, participation is encouraged.

The webinar will take place on Tuesday, October 3 at 10:00 am. Access information will be posted on the MSRC website prior to the meeting. Alternatively, prospective participants may attend in person in Conference Room GB at the SCAQMD headquarters at 21865 Copley Drive, Diamond Bar, California.
2. **Download the MSRC-provided PowerPoint Presentation from the MSRC Website at www.Cleantransportationfunding.org.** This brief presentation must be presented to each participating City Council or Board of County Supervisors to be eligible to receive MSRC funding.
3. **Obtain a Resolution or Minute Action Documentation** - All applications submitted under the Local Government Partnership Program must include a copy of an approved Resolution or Minute Action from the City Council or County Board of Supervisors of the lead agency that:
 - a) Acknowledges receipt of the MSRC-supplied presentation from city or county staff;
 - b) Authorizes the proposed project; and
 - c) Allocates the necessary matching funds.
4. **Prepare a Project Implementation Plan** - This application element outlines the specific projects or programs for which MSRC funding is sought, subject to the eligible project categories outlined in Section

II.B, above. The information provided will be the primary source material for the development of a sole-source contract Statement of Work.

5. **Proposed Budget** – This application element delineates how the participating city or county proposes to invest their allocation of MSRC **Clean Transportation Funding™** in support of eligible AQMP measures. It is preferred that cities and counties provide cost information at the “per project” level. Note that the goal of the MSRC is to significantly leverage **Clean Transportation Funding™**; thus, participating cities and counties are encouraged to maximize the use of other funding sources to expand project scope and accelerate implementation of South Coast AQMP measures.
6. **Implementation Schedule** – This final application element requests the submittal of a schedule depicting key milestones, anticipated project completion dates, etc. The goal of the MSRC is to have all projects completed within 60 months of contract execution.

V APPLICATION SUBMITTAL

Applications to participate in the MSRC’s Local Government Partnership Program can be submitted by a city, county, or eligible JPA between the dates of September 1, 2017 and March 2, 2018. As this is a sole source solicitation, the MSRC reserves the right to modify the proposal acceptance period at their discretion, including granting additional proposal preparation time without penalty.

Applications must be submitted electronically in PDF format using the MSRC Website. We believe this benefits the applicant, the MSRC staff, and the environment. A tutorial has been developed to walk applicants step by step through the electronic application submittal process. This tutorial is available on the MSRC Website at www.cleantransportationfunding.org. Look for the tutorial on the “Proposal Process – Upload Proposal” page.

VI PARTICIPATION APPLICATION REVIEW, ACCEPTANCE, & CONTRACTING

A Subcommittee of the MSRC Technical Advisory Committee (MSRC-TAC) will evaluate each application received for conformance to Program requirements. The Subcommittee will make recommendations to the full MSRC-TAC, who will in turn advise the MSRC. Upon approval by the MSRC, a sole-source contract will be negotiated between the SCAQMD on behalf of the MSRC and each participating city, county, and JPA. Applications will be evaluated as received.

If you have any questions regarding this funding opportunity or this Program Opportunity Notice and Invitation to Negotiate, please contact one of the MSRC staff members listed below:

Cynthia Ravenstein
Cravenstein@aqmd.gov
(909) 396-3269

Ray Gorski
rgorski@aqmd.gov
(909) 396-2479

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 12

REPORT: Legislative, Public Affairs and Media Report

SYNOPSIS: This report highlights the June and July 2017 outreach activities of the Legislative, Public Affairs and Media Office, which include: an Environmental Justice Update, Community Events/Public Meetings, 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:FW:MC:DM

BACKGROUND

This report summarizes the activities of the Legislative, Public Affairs and Media Office for June and July 2017. The report includes five major areas: Environmental Justice Update; Community Events/Public Meetings (including the Speakers Bureau/Visitor Services, Communications Center, and Public Information Center); Business Assistance; Media Relations; and Outreach to Business and Governments.

ENVIRONMENTAL JUSTICE UPDATE

The following are key environmental justice-related activities in which staff participated during June and July 2017. These events involve communities which suffer disproportionately from adverse air quality impacts.

June 8

- Staff participated in a conference call with the California Air Resources Board (CARB), regarding oil and gas community monitoring project. Per CARB's request, SCAQMD staff discussed the agency's outreach strategies and environmental justice initiatives. CARB would like to collaborate on events in environmental justice communities.

June 28

- SCAQMD, in partnership with CalEPA, hosted an Inter-Agency Workshop on Environmental Complaints. The purpose of the Inter-Agency workshop was for participants to have a better understanding of how agencies within Los Angeles County process their environmental complaints, and for them to discuss ways in which environmental complaints can be processed more collaboratively and efficiently.

July 19

- Staff attended the Riverside County Health Coalition meeting. The meeting focused on the Community Health Improvement Plan and featured speakers from local healthcare organizations and hospitals, community groups and government agencies.

July 20

- SCAQMD hosted “A Community Workshop on Air Pollution and Recognition of Environmental Justice Leaders,” at Las Palmas Park in the City of San Fernando, in partnership with Pacoima Beautiful. The event was an opportunity for community members to learn about SCAQMD and to express their air quality concerns.

July 26

- Staff participated in the Coachella Valley Environmental Justice Enforcement Task Force meeting in Mecca. The Salton Sea was the main agenda item for discussion and SCAQMD staff provided information on current programs.

July 27

- Staff presented on “Environmental Justice Best Practices” to the CAPCOA Board of Directors. Staff discussed the elements of the Environmental Justice Community Partnership, Environmental Justice Advisory Group, and other SCAQMD environmental justice efforts.

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 of 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 1

- SCAQMD Town Hall Meeting in Compton, Dollarhide Community Center, Compton.
- Carl Moyer Program Workshop in Indio, Coachella Valley Mosquito & Vector Control District, Indio.

June 8

- San Fernando Valley Council of Governments, Mobility Workshop, Universal City.

June 13

SCAQMD Town Hall Meeting in Paramount, Paramount Community Center, Paramount.

June 22

- WRCOG 26th Annual General Assembly, Morongo Casino Resort & Spa, Cabazon.
- FuturePorts 2017 Annual Conference, Hyatt Regency, Long Beach.

June 24

- American Cancer Society Relay for Life Event, Salt Lake Park, Huntington Park.

June 29

- Arcadia Summer Concert Series – Environmental Fair, Arcadia City Hall Soccer Field.

July 22

- Assembly Member Freddie Rodriguez, Public Community Barbecue and Open House Meeting, Chino.

July 29

- Assembly Member Autumn Burke, 3rd Annual 62nd Assembly District's Back to School Health & Wellness Fair, Jane Addams Park, Lawndale.

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 7

- Staff presented an overview on SCAQMD, air quality, and environmental justice to 25 members of a Girl Scout Troop, at the United Methodist Church in Garden Grove.

June 12

- Staff presented an overview on SCAQMD, environmental justice, air quality and its health impacts, and ways to report air quality complaints, to 30 members of the San Clemente Rotary Club.

June 27

- Staff presented an overview on SCAQMD, environmental justice, air quality, its health impacts, and ways to report air quality complaints to 38 members of the Pacoima Beautiful Environmental Justice Organization.

July 7

- Three representatives from the National Weather Service visited SCAQMD headquarters, were provided an overview on air quality in Southern California, and toured SCAQMD and its laboratory.

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	6,976
Calls to SCAQMD's Spanish-language Line	<u>54</u>
Total Calls	7,030

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	295
<u>Calls to Automated System</u>	<u>2,468</u>
Total Calls	2,763

Visitor Transactions	410
Email Advisories Sent	57,178

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 573 companies;
- Conducted 25 free on-site consultations;
- Issued 227 clearance letters; and
- Provided assistance in filing 2 requests for variance.

Types of businesses assisted

Auto Body Shops	Dry Cleaners	Furniture Refinishing Facilities
Engineering Firm	Gas Stations	Auto Repair Centers
Construction Firm	Restaurants	Printing Facilities
Architecture Firm	Breweries	Manufacturing Facilities
Plating 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: 347
 Press Releases Issued: 10
 Air Quality Advisories: 13

Major Media Topics for June & July:

June 2 Board Meeting – The LA Times submitted several questions regarding the June 2, 2017 Governing Board Meeting and also requested a complete video of the meeting.

- **Refineries (General)** – The Center for Public Integrity (CPI) inquired about recent action by Bay Area AQMD to require all refineries to operate real-time fence-line monitoring systems. The reporter requested information on whether the SCAQMD had any similar regulatory requirements and asked several questions in relation to the six major refineries in the SCAQMD jurisdiction. CPI also submitted a request for data on local refineries.
 - Reporters from the Daily Breeze and Wilmington Wire inquired about the compressor breakdown at Valero. Stories ran in the Daily Breeze.
- **Tesoro EIR** —Media staff prepared a response to the CBE lawsuit against SCAQMD regarding the approval of Tesoro’s EIR; the response was provided to media outlets requesting it. Media staff also responded to several inquiries and requests from CPI.org regarding Tesoro, including information on AER data, latitude and longitude coordinates, public meetings on the EIR and transcripts of those meetings. Bloomberg and CNS sent inquiries regarding the lawsuit. Staff responded to questions with detailed bullet points, and included a portion of the EIR. LA Business Journal ran a related story incorrectly stating that SCAQMD did not respond to a request for comment, when in fact no such request was sent. Staff contacted the reporter to request a correction.
- **Torrance Refinery** – Media staff responded to inquiries about the outcome of the special Administrative Committee meeting on June 8, 2017.
 - Media staff traced the origin of a map posted to a FLARE Facebook page and explained to the Daily Breeze how it misrepresented information about cancer risks from the Torrance refinery.
 - KRCW interviewed staff on the subject of a grassroots effort to ban use of hydrofluoric acid at the Torrance refinery.
- **Carlton Forge Works** – In response to the news release issued on the petition for an Order for Abatement, staff conducted multiple interviews. Stories ran on KPCC, KNX radio, and the Long Beach Press-Telegram newspaper.
- **Medical Waste Services** – KPCC submitted several questions regarding Medical Waste Services of Paramount and staff responded via email.
- **Heat Wave, Smoke, and Air Quality Advisories** – Staff were interviewed by the Los Angeles Times, KPCC (NPR), CNN, and KFI AM 640 about the heat wave and how increased ground-level ozone would adversely affect air quality and residents in the South Coast basin. KPCC, Los Angeles Times, KNX, KFI, Santa Clarita Valley

Signal and others inquired about the heat wave and corresponding smog levels, in response to an SCAQMD press release. KPCC requested a recorded interview. Stories ran in the Signal, OC Register, Whittier Daily News, LA Times, KPCC, San Diego Union-Tribune, ABC7, KISS FM, KCDZ, and affiliate networks.

- The Press Enterprise requested an interview on how poor air quality has been during the first part of this year's smog season. Media staff sent a chart of diurnal ozone variation during 2016 and conducted an interview with SCAQMD's Health Effects Officer to provide advice and information for residents about the best times of day to exercise outdoors.
- **Air Quality Monitoring and AQI Map** – Media staff conducted an in-depth interview with KPCC regarding SCAQMD's air monitoring stations, pollutants monitored, and the AQI system. A story ran on June 22, 2017. ABC7 requested access to SCAQMD's AQI maps and air quality forecast data, to possibly share with viewers daily.
- **Refineries**
 - **Response to Carson Mayor Albert Robles Op-Ed** – A guest commentary, *AQMD hasn't shirked its responsibility for Carson*, was submitted and printed in the Daily Breeze on July 30 in response to Mayor Robles' claims that SCAQMD was not doing enough to protect the health and safety of Carson residents who live near oil refineries.
 - **Health Risk Assessment (HRA)** – The Center for Public Integrity requested updated HRA documents for six refineries within the district.
 - **Hydrofluoric Acid (HF)** - Bloomberg News interviewed staff about the potential phase out of HF at refineries in the South Bay. .
- **Cap and Trade/AB 617** – LA Times, the Associated Press, and Bloomberg News requested comment regarding the cap-and-trade bill, including the provision preempting facility CO2 regulation by local districts. Staff outlined to reporters the chief concerns SCAQMD had regarding the bill, and provided a joint letter to the Governor, drafted with other major air districts, regarding the issue. LA Times and CalMatters inquired about the agency's position on AB 617. Reporters requested comment on whether or not the agency supports the legislation and believes it will speed transition to BARCT.
- **Carlton Forge Works** – After the issuance of a Media Advisory regarding a petition for an administrative order against Carlton Forge Works, staff responded to an interview request on the subject with KNX radio. The Press-Telegram also inquired about the petition for an Order of Abatement. KPCC requested update on Carlton Forge following the hearing held last week.
- **Smog Season/Holiday Fireworks** – KPCC requested an interview on the subject of air pollution levels over the July 4th holiday weekend, especially the effects of

smoke from fireworks on air quality. Staff participated in the interview on July 4. A story ran that day. ABC7 also requested an on-camera interview, airing it twice on July 5.

- **Near-Roadway Monitoring** – LA Times requested a copy of a lab report from a glass plate sample at a residence. The reporter also submitted questions regarding any SCAQMD practices on installing monitors at residences near freeways.
- **Public Records Requests** – The LA Times requested and staff provided meeting minutes for the Brain & Lung Tumor and Air Pollution Foundation from January 1, 2011 to the most recently available date. The LA Times also requested, and staff provided, Form 700s for 2015 and 2016 for all current and former Governing Board members and Executive Officers serving during that timeframe, as well as forms for current Hearing Board members.
- **Salton Sea Odors** – The Sacramento Bee submitted questions pertaining to the Salton Sea and recurring odor advisories for hydrogen sulfide (H₂S), specifically the number of days exceeding state standards for H₂S.
- **U.S. EPA Petition** – Inside Cal/EPA inquired about the status of SCAQMD's petition to the US EPA for proposed rulemaking for an ultra-low-NO_x standard for heavy-duty engines. Staff responded that to the best of our knowledge the rulemaking is proceeding.
- **Rainbow Environmental Services in Huntington Beach** – The OC Register inquired as to whether Rainbow has filed for an extension to the deadline(s) in its Order for Abatement. At this time they have not filed such a request.
- **Hexavalent Chrome** – KPCC and the Press-Telegram inquired in regards to hexavalent chrome levels monitored recently in the Paramount and Compton areas. The cities of Paramount and Long Beach issued press releases after receiving reports from SCAQMD about high hexavalent chrome levels. Additionally, reporters requested information on whether we planned to expand hexavalent chrome monitoring into the city of Long Beach. Stories ran on KPCC's website and the Press-Telegram.

Media Campaigns

- **Google Ad Campaign:** During June, *The Right to Breathe* Google Ad Words campaign garnered 10,183 clicks, 6.58 million impressions, and 1.03 million views.
 - A new campaign proposal was prepared for review at the July 7 Board meeting for continued outreach on the film.
 - During July, *The Right to Breathe* Google Ad Words campaign garnered 2,821 clicks, 3.5 million impressions, and 597,352 views.

- **Check Before You Burn:** Work is beginning on the campaign.
 - Staff hosted the annual "kick-off" meeting on July 11 to begin strategizing the 2017-2018 campaign goals. Project goals include increasing the number of AirAlerts sign-ups gathered over the course of the campaign, improving outreach in communities most affected by environmental justice issues, and determining the most effective means of outreach to pursue. Recurring weekly meetings began in August.

- **Signature Film Update:** Media staff is updating the signature film *The Right to Breathe* and work began in July.
 - Staff solicited participation by local members of EJ communities, and scheduled interviews and b-roll filming started on August 16.

News Releases Issued

- Carlton Forge Works Agrees to Order to Reduce Potential for Creating Nuisance Odors, July 28, 2017
- SCAQMD Seeks Administrative Order to Curtail Hexavalent Chromium Emissions from Lubeco Inc. in Long Beach, July 26, 2017
- SCAQMD Seeks Administrative Order to Reduce Nuisance Odors (from Carlton Forge Works), July 11, 2017
- SCAQMD Board Takes Action to Further Reduce Flaring Emissions from Refineries, July 7, 2017
- Unhealthy to Very Unhealthy Air Quality Expected to Accompany Heat Wave, July 5, 2017
- Anaplex in Paramount Ordered to Temporarily Suspend Operations, June 27, 2017
- SCAQMD Issues Initial Permits for Tesoro Refineries, June 23, 2017
- Unhealthy to Very Unhealthy Air Quality Expected to Accompany Heat Wave, June 15, 2017
- SCAQMD Seeks Administrative Order to Curtail Nuisance Odors, June 13, 2017
- SCAQMD Conducts Town Hall Meeting in Compton on Special Air Toxics Monitoring, June 2, 2017
- SCAQMD Awards \$8.8 Million for Electric School Buses, June 2, 2017

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:

Aliso Viejo	Bear Valley	Carson
Anaheim	Bellflower	Chino
Baldwin Park	Buena Park	Claremont
Banning	Calimesa	Coachella

Compton	Laguna Niguel	San Clemente
Costa Mesa	La Verne	San Dimas
Eastvale	Los Angeles	San Fernando
Glendora	Mission Viejo	Santa Ana
Hawthorne	Moreno Valley	Santa Clarita
Huntington Beach	Newport Beach	Santa Monica
Indio	Norco	South Pasadena
Inglewood	Paramount	Torrance
Irwindale	Pasadena	Tustin
Jurupa Valley	Perris	Villa Park
Lawndale	Placentia	Walnut
Lake Forest	Palos Verdes Estates	Yucaipa
La Habra	Rosemead	
Laguna Hills	San Bernardino	

Visits and/or communications were conducted with elected officials or staff from the following state and federal offices:

- Governor Jerry Brown
- U.S. Senator Dianne Feinstein
- U.S. Senator Kamala Harris
- U.S. Senator James Inhofe
- U.S. Congressman Brad Sherman
- U.S. Congresswoman Nanette Barragán
- U.S. Congresswoman Karen Bass
- U.S. Congressman Lou Correa
- U.S. Congressman Raul Ruiz
- U.S. Congressman Tony Cárdenas
- U.S. Congressman Ted Lieu
- U.S. Congresswoman Lucille Roybal-Allard
- U.S. Congressman Ed Royce
- U.S. Congressman Mark Takano
- Senate President pro Tem Kevin de León
- State Senator Henry Stern
- State Senator Ben Allen
- State Senator Robert Hertzberg
- Jose Medina
- State Senator Josh Newman
- State Senator Ricard Roth
- State Senator Scott Wilk
- State Senator Jeff Stone
- Assembly Member Autumn Burke
- Assembly Member Cristina Garcia
- Assembly Member Steven Choi
- Assembly Member Tom Daily
- Assembly Member Matt Dababneh
- Assembly Member Chris Holden
- Assembly Mike Gipson
- Assembly Member Al Muratsuchi
- Assembly Member Adrin Nazarian
- Assembly Member Sharon Quirk-Silva
- Assembly Member Ridley-Thomas
- Assembly Member Sabrina Cervantes
- Assembly Member Melissa Melendez
- Assembly Member

Staff represented SCAQMD and/or provided updates or a presentation to the following governmental agencies and business organizations:

Anaheim Chamber of Commerce
 Association of California Cities, Orange County

Automobile Club of Southern California, Irvine
California Air Resources Board
California Environmental Protection Agency
City of Baldwin Park's Recreation & Community Services Department
Beverly Hills Chamber of Commerce
Bear Valley Chamber of Commerce
California Air Pollution Control Officers Association – CAPCOA
Coachella Valley Mosquito & Vector Control District
Costa Mesa Chamber of Commerce
Greater Coachella Valley Chamber of Commerce
Lake Arrowhead Chamber of Commerce, 5 Mountain Communities Government
Affairs Committee
League of California Cities, Los Angeles County Division
Newport Beach Chamber of Commerce
North Orange County Chamber of Commerce
Orange County Business Council
Pasadena Chamber of Commerce
San Manuel Band of Mission Indians
Santa Monica Chamber of Commerce
San Fernando Valley Council of Governments
San Bernardino Council of Governments
San Bernardino County Transportation Authority
San Gabriel Valley Council of Governments
San Gabriel Valley Economic Partnership
South Bay Cities Council of Governments
South Orange County Economic Coalition
South Pasadena Chamber of Commerce
Southern California Association of Governments (SCAG)
Southern California Gas Company
Three Valley Municipal Water District, Southern California
Transportation NOW: Moreno Valley/Perris
Transportation NOW: Northwest
Westside Cities Council of Governments

Staff represented SCAQMD and/or provided updates or a presentation to the following community and educational groups and organizations:

California State University, Dominguez Hills
Coachella Valley Environmental Justice Enforcement Task Force
Crest Forest Municipal Advisory Council
Girl Scout Troop 2390, Garden Grove
Granada Hills North Neighborhood Council
Lake Gregory Improvement Committee
Northwest San Pedro Neighborhood Council Sustainability Committee

Pacoima Neighborhood Council
Porter Ranch Neighborhood Council Sustainability Committee
Riverside County Health Coalition
St. Joseph Church, Santa Ana
San Clemente Rotary Club
Sylmar Neighborhood Council
Sustainable Claremont Organization
Sunland-Tujunga Neighborhood Council
Sunshine Canyon Community Advisory Committee
University of California, Irvine
United Methodist Church, Garden Grove
Valley Alliance of Neighborhood Councils
Valley Interfaith Council
Van Nuys Neighborhood Council

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 13

REPORT: Report to Legislature and CARB on SCAQMD's Regulatory Activities for Calendar Year 2016

SYNOPSIS: The SCAQMD is required by law to submit a report to the Legislature and CARB on its regulatory activities for the preceding calendar year. The report is to include a summary of each rule and rule amendment adopted by SCAQMD, number of permits issued, denied, or cancelled, emission offset transactions, budget and forecast, and an update on the Clean Fuels program. Also included is the Annual RECLAIM Audit Report, as required by RECLAIM Rule 2015 - Backstop Provisions.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:

Receive and file the attached report, and direct staff to forward the final report to the Legislature and the California Air Resources Board.

Wayne Natri
Executive Officer

DA: FW:HC:jf

Background

SCAQMD is subject to several internal and external reviews of its air quality programs. These include an annual review of SCAQMD's proposed operating budget for the upcoming fiscal year and compliance program audits.

In 1990, the Legislature directed SCAQMD to provide an annual review of its regulatory activities (SB 1928, Presley), and specified the type of information required (Health and Safety Code §40452). Many of the required elements overlap with other requirements of separate legislation. For example, information on SCAQMD's Clean Fuels Program is a requirement of this report, but is also a separate requirement under

legislation passed in 1999 (SB 98, Alarcón). The purpose of this report is to fill in pieces of additional data needed to compile a comprehensive regulatory overview. Most of the information included in this report is not new, but is simply a compilation of information previously seen by the Board. For example, Chapter I lists all the rules and rule amendments adopted by the Board during 2016. The Annual RECLAIM Audit Report, which the Board approved on March 3, 2017, also required to be submitted to the Legislature by RECLAIM Rule 2015 - Backstop Provisions.

The specific requirements of this report include:

- A summary of each major rule and rule amendment adopted by the Board;
- The number of permits to operate or permits to construct that were issued, denied, cancelled or not renewed;
- Data on emission offset transactions and applications during the previous year;
- The budget and forecast of staff increases or decreases for the following fiscal year;
- An identification of the source of all revenues used to finance the SCAQMD's activities;
- An update on the SCAQMD's Clean Fuels program; and
- The annual RECLAIM Audit Report.

Attachment

Report to the Legislature on the Regulatory Activities of the SCAQMD for Calendar Year 2016 (including Executive Summary)¹

¹ Due to the bulk of these materials, Chapters III, IV and V of the report are available on CD, online at <http://www.aqmd.gov/docs/default-source/LPA-Outreach/sb-1928-report-to-legislature-september-2017.pdf>, or anyone wishing to obtain a hard copy may do so by contacting SCAQMD's Public Information Center at (909) 396-2001.

**REPORT TO THE LEGISLATURE ON THE
REGULATORY ACTIVITIES OF THE
SOUTH COAST
AIR QUALITY MANAGEMENT DISTRICT**

**Pursuant to
Chapter 1702, Statutes of 1990 (SB 1928)**



SEPTEMBER 2017

Cleaning the Air that We Breathe...

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
GOVERNING BOARD**

Chairman: WILLIAM A. BURKE, Ed.D.
Speaker of the Assembly Appointee

Vice Chairman: BEN BENOIT
Mayor Pro Tem, City of Wildomar
Cities Representative, Riverside County

Members:

Marion Ashley
Supervisor, County of Riverside

Judith Mitchell
Councilmember, City of Rolling Hills Estate
County of Los Angeles
Cities Representative, Western Region

Joe Buscaino
Councilmember, City of Los Angeles
City of Los Angeles Representative

Shawn Nelson
Supervisor, County of Orange

Michael Cacciotti
Mayor, City of South Pasadena
County of Los Angeles
Cities Representative, Eastern Region

Dr. Clark E. Parker Sr.
Senate Rules Committee Appointee

Sheila Kuehl
Supervisor, County of Los Angeles

Dwight Robinson
Councilmember, City of Lake Forest
Cities Representative, Orange County

Joseph K. Lyou, PH.D.
Governor's Appointee

Janice Rutherford
Supervisor, County of San Bernardino

Larry McCallon
Mayor Pro Tem, City of Highland
Cities Representative, San
Bernardino County

Wayne Nastri
Executive Officer

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EXECUTIVE SUMMARY

Introduction

The South Coast Air Quality Management District (SCAQMD) is subject to internal and external reviews of its air quality programs. These include annual reviews of the District's budget, forecast and proposed operating budget for the upcoming fiscal year, and compliance program audits. In addition, the SCAQMD is required to submit to the California Air Resources Board (CARB) and State Legislature an annual review of its regulatory activities for the preceding calendar year. The attached report satisfies this latter requirement which is mandated pursuant to Chapter 1702, Statutes of 1990 (SB 1928, Presley), Section 40452 of the California Health and Safety Code.

Rule Adoptions and Amendments in 2016 and CEQA Alternatives

This section contains a summary of each major rule adoption or amendment adopted by the SCAQMD Governing Board in the preceding calendar year (e.g., 2016). Each summary contains detailed information about the estimated emission reductions, cost effectiveness, alternatives considered pursuant to the requirements in the California Environmental Quality Act (CEQA), socioeconomic impacts, and sources of funding.

Projects undertaken by public agencies are subject to CEQA, so rules and regulations promulgated by SCAQMD must be reviewed to determine if they are considered to be a "project" as defined by CEQA. If they are not a "project" or they are determined to be exempt from CEQA, no further action is required. If the project has the potential to create significant or less than significant adverse effects on the environment, then an environmental analysis is necessary. New rules or existing rules being amended often require a comprehensive CEQA document that contains an environmental impact analysis which includes the following:

- * identification of potentially significant adverse environmental impacts evaluated based on environmental checklist topics;
- * identification of feasible measures, if any, to mitigate significant adverse environmental impacts to the greatest extent feasible;
- * if necessary, a discussion and comparison of the relative merits of feasible project alternatives that generally achieve the goals of the project, but may generate fewer or less severe adverse environmental impacts; and,
- * identification of environmental topics not significantly adversely affected by the project.

If it is concluded in the CEQA document that no significant adverse environmental impacts would be generated by the proposed project, neither the identification of feasible mitigation measures nor an analysis of CEQA alternatives to the project is required. If significant adverse environmental impacts are identified, feasible mitigation measures, if any, and alternatives must be identified and an analysis of the relative merits of each alternative is required.

SCAQMD operates under a regulatory program certified by the Secretary for Resources pursuant to Public Resources Code (PRC) Section 21080.5. Certification means that the SCAQMD can incorporate its environmental analyses into CEQA documents other than environmental impact reports (EIRs), negative declarations (NDs), or mitigated NDs (MNDs). In addition, certified CEQA programs are not subject to a limited number of specific CEQA requirements identified in PRC Section 21080.5. All documents prepared by SCAQMD under its certified regulatory program are called Environmental Assessments (EAs). SCAQMD rules and regulations are subject to SCAQMD's certified CEQA program, while plans (e.g., AQMP) are not. In addition, Supplemental EAs, Addenda, and EAs for projects determined not to have significant environmental impacts often contain a more focused analysis of potential environmental impacts.

Refer to Chapter 1 for rule adoptions, rule amendments and CEQA Alternatives details.

CEQA Lead Agency Projects

SCAQMD also acts as the Lead Agency under CEQA for non-SCAQMD projects where SCAQMD typically has primary approval, i.e., discretionary permitting authority. Under CEQA, the Lead Agency is responsible for determining whether an EIR, ND, or other type of CEQA document is necessary for any proposal considered to be a "project" as defined by CEQA. Further, the Lead Agency is responsible for preparing the environmental analysis, complying with all procedural requirements of CEQA, and approving the environmental documents. All documents prepared by SCAQMD for permit projects are subject to the standard CEQA requirements. SCAQMD staff is responsible for preparing or reviewing prepared CEQA documents for stationary source permit projects.

Refer to Chapter 1 for CEQA Lead Agency details.

Socioeconomic Impact Analyses

California Health and Safety Code Section 40440.8 requires that SCAQMD perform socioeconomic impact assessments for its rules and regulations that will significantly affect air quality or emissions limitations. Prior to the requirements of Section 40440.8, SCAQMD staff had been evaluating the socioeconomic impacts of its actions pursuant to a 1989 resolution of its Governing Board. Additionally, SCAQMD staff assesses socioeconomic impacts of CEQA alternatives to those rules with significant cost and emission reduction impacts.

The elements of socioeconomic impact assessments include direct effects on various types of affected industries in terms of control costs and cost effectiveness as well as public health benefits associated with Air Quality Management Plans (AQMPs). Additionally, SCAQMD staff uses an economic model developed by Regional Economic Models, Inc. (REMI) to analyze the potential direct and indirect socioeconomic impacts of SCAQMD rules on Los Angeles, Riverside, Orange, and San Bernardino Counties. These impacts include, but are not limited to employment and competitiveness.

Refer to Chapter 1 for Socioeconomic Impact Analyses.

Engineering and Permitting

Background

Section 40452 of the California Health and Safety Code requires that the SCAQMD submit an annual report to both the state board and Legislature that summarizes its regulatory activities for the preceding calendar year. Paragraph (b) of Section 40452 requires that the annual report include data on “the number of permits to operate or to construct, by type of industry, that are issued and denied, and the number of permits to operate that are not renewed.” Paragraph (c) of section 40452 requires that the annual report also includes data on emission offset transactions and applications during the previous fiscal year, including an accounting of the number of applications for permits for new or modified sources that were denied because of the unavailability of emission offsets. In addition, SCAQMD Rule 2015 - Backstop Provisions, requires submittal of the annual Regional Clean Air Incentives Market (RECLAIM) Audit Report for the 2015 Compliance Year to the Legislature.

The following paragraphs provide a brief summary for each report.

Permitting Data – Calendar Year 2016

During calendar year 2016, SCAQMD dispositioned a total of 9,872 applications. The majority of these applications were for Permits to Operate (3,725), Area Sources & Certified/Registrations (2,327), and Changes of Operators (1,511). Also, 1,200 permits were not renewed. The total number of dispositioned applications for 2016 is about 13% higher than the total for 2015, mainly attributed to the SCAQMD’s Permit Application Backlog Reduction efforts. This data, broken down into nine different categories, is summarized in Table 1 (Chapter II – Engineering and Permitting Activities).

Table 2 contains a breakdown of permits dispositioned (in the nine categories) and permits not renewed, by type of industry. The type of industry was based on North American Industry Classification System (NAICS) codes, which were provided by the applicant at the time of application filing. The top four NAICS codes were 324110 – Petroleum Refineries, 447190 - Gasoline Service Stations, 811121 – Automotive Body, Paint, and Interior Repair and Maintenance, and 445110 – Supermarkets and Other Grocery (except for Convenience) Stores.

Emission Offset Transactions Data – Fiscal Year 2015/2016

During fiscal year 2015-16, a total of 115 emission offset transactions were completed, which include 70 transactions for reactive organic gases (ROG), 2 transactions for oxides of nitrogen (NO_x), 2 transactions for oxides of sulfur (SO_x), 1 transaction for carbon monoxide (CO), and 40 transactions for particulate matter with an aerodynamic diameter less than 10 microns (PM₁₀). The amount of emissions offsets transferred, by pollutant, include 1,486 pounds per day of ROG, 106 pounds per day of NO_x, 46 pounds per day of SO_x, 32 pounds per day of CO, and 137 pounds per day of PM₁₀ (see Table 3). No banking applications resulting in the issuance of new emission offsets for ROG, NO_x, SO_x, CO or PM₁₀ were processed. Additionally, no applications were denied permits for new or modified sources

due to the unavailability of emission offsets. (See Chapter II – Engineering and Permitting Activities, Attachment A for details).

RECLAIM Audit Report

The REgional CLean Air Incentives Market (RECLAIM) program was adopted in 1993 to provide facilities with flexibility in achieving the same emissions reduction goals as would have been achieved under the traditional command and control approach while lowering the cost of compliance. To ensure RECLAIM is achieving its goal, SCAQMD Rule 2015 - Backstop Provisions, requires preparation of an annual audit report on the program. This Annual RECLAIM Audit Report assesses emission reductions, availability of RECLAIM Trading Credits (RTCs) and their average annual prices, job impacts, compliance issues, and other measures of performance for the twenty-second year of this program. The results of the annual audit show that RECLAIM continues to meet its aggregate emission goals and all other specified objectives.

As discussed in more detail in the audit report (see Attachment B), a total of 268 facilities were in the RECLAIM program at the end of Compliance Year 2015. Total NO_x emissions from RECLAIM facilities were 25% less than the aggregate NO_x allocations, and SO_x emissions were 26% less than the aggregate SO_x allocations for the program. The vast majority of RECLAIM facilities complied with their allocations during the 2015 compliance year (94% of NO_x facilities and 97% of SO_x facilities).

A total of over \$1.47 billion in RTCs has been traded since the adoption of RECLAIM, of which \$118.6 million occurred in calendar year 2016 (compared to \$197.1 million in calendar year 2015), excluding swaps. The annual average prices of discrete-year NO_x and SO_x RTCs and infinite-year block (IYB – trades that involve blocks of RTCs with a specified start year and continuing in perpetuity) NO_x and SO_x RTCs traded in calendar years 2015 and 2016 were all below the applicable review thresholds for initiating program review.

In Compliance Year 2015, RECLAIM facilities reported a net gain of 1,329 jobs, representing 1.21% of their total employment. The RECLAIM program also met other applicable requirements including meeting the applicable federal offset ratio under New Source Review and having no significant seasonal fluctuation in emissions. Additionally, there is no evidence that RECLAIM resulted in any increase in health impacts due to emissions of air toxics.

Refer to Chapter V for the 2015 Annual RECLAIM Audit Report.

Budget and Work Program

The Executive Officer's Budget, Goals and Priority Objectives for FY 2017-18 was adopted by the Governing Board on June 2, 2017 and included the following fee increases for FY 2017-18: 1) Pursuant to Rule 320, an increase of most fees by 2.5% consistent with the Consumer Price Index; 2) A fee increase of 10.67% for Title V sources; and a 4% increase in specified fees for non-Title V sources.

Refer to Chapter III for the Budget & Work Program Fiscal Year 2017-2018 Report.

Clean Fuels Program

2016 Annual Report

During CY 2016 the SCAQMD executed 60 new contracts, projects or studies and modified 6 continuing projects adding additional dollars toward research, development, demonstration and deployment (RDD&D) of alternative fuel and clean fuel technologies. The SCAQMD Clean Fuels Program contributed nearly \$21.8 million in partnership with other governmental organizations, private industry, academia and research institutes, and interested parties, with total project costs of a bit more than \$198 million. The significant project scopes of a few key contracts executed in 2016 resulted in leveraging \$9 for every \$1 of Clean Fuels funding, whereas typical leveraging is \$3-\$4 for every \$1 in Clean Fuels funding. Leveraging dollars and aggressively applying for additional funds whenever funding opportunities arise is more important than ever given the magnitude of additional funding identified in the Draft 2016 AQMP to achieve federal ozone air quality standards.

The projects or studies executed in 2016 addressed a wide range of issues and opportunities with a diverse mix of advanced technologies. The following core areas of technology advancement for 2016 executed contracts (in order of funding percentage) include:

- Electric and Hybrid Vehicle Technologies and Related Infrastructure (emphasizing electric and hybrid electric trucks and container transport technologies with zero emission operations);
- Fueling Infrastructure and Deployment (predominantly natural gas and renewable fuels);
- Hydrogen and Mobile Fuel Cell Technologies and Infrastructure;
- Engine Systems (emphasizing alternative and renewable fuels for truck and rail applications);
- Technology Transfer/Assessment and Outreach; and
- Fuels and Emission Studies.

During CY 2016, the SCAQMD supported a variety of projects and technologies, ranging from near-term to long-term research, development, demonstration and deployment activities. This “technology portfolio” strategy provides the SCAQMD the ability and flexibility to leverage state and federal funding while also addressing the specific needs of the South Coast Air Basin (Basin). Projects executed in CY 2016 included but are not limited to continued development and demonstration of electric and hybrid technologies with an emphasis on zero emission goods movement technologies, large-scale production of renewable natural gas (RNG) as well as demonstration of next generation engines using RNG, development and demonstration of hydrogen technologies and infrastructure, and development and demonstration of heavy-duty natural gas and ultra-low emission diesel engines and vehicles.

As of January 1, 2017, there were 93 open contracts (Appendix B) in the Clean Fuels Program.

Thirty-two (32) RDD&D projects or studies and 11 technology assessment and transfer contracts were completed in 2016.

2017 Technology Advancement Plan Update

The overall strategy is based in large part on technology priorities and opportunities identified in the SCAQMD's AQMP and the SCAQMD Governing Board's directives to protect the health of residents in the Basin. The NO_x, VOC and PM emission sources of greatest concern are heavy-duty on-road vehicles, medium- and light-duty on-road vehicles, and off-road equipment. Ocean-going vessels and locomotives remain a concern for the region, but at this time only the federal government (or CARB with EPA approval) has the authority to set emissions standards for them. Notwithstanding, TAO works with maritime and railroad companies to push the envelope in these areas as well.

The Plan Update includes projects to develop, demonstrate and commercialize a variety of technologies, from near-term to long-term commercialization, that are intended to provide solutions to the emission control needs identified in the 2016 AQMP. Given the need for significant reductions over the next 6-14 year timeframe, mid- and longer-term alternative fuels, hybrid, electric and fuel cell based technologies are emphasized. Areas of focus include:

- reducing emissions from port-related activities, such as cargo handling equipment and container movement technologies, including demonstration and deployment of cargo container movement systems with zero emission range;
- mitigating criteria pollutant increases from renewable fuels, such as renewable natural gas, diesel and hydrogen as well as other renewable fuels and waste streams;
- developing and demonstrating electric-drive (fuel cell, battery, plug-in hybrid and hybrid) technologies across light-, medium- and heavy-duty platforms;
- producing transportation fuels and energy from renewable and waste stream sources; and
- establishing large-scale hydrogen refueling and EV charging infrastructure to help accelerate the introduction of zero emission vehicles into the market.

Potential projects for 2017 total \$16.5 million, with anticipated leveraging of more than \$4 for every \$1 of Clean Fuels funding, for total project costs of nearly \$70 million. The proposed projects may also be funded by revenue sources other than the Clean Fuels Program, especially VOC and incentive projects.

CHAPTER I
RULE DEVELOPMENT, CEQA, and SOCIOECONOMIC IMPACT ANALYSES

RULE ADOPTIONS AND AMENDMENTS IN 2016 AND CEQA ALTERNATIVES

The following section lists all new and amended rules adopted by the Governing Board in 2016 by month. The type of CEQA document (including projects exempt from CEQA) is described for each new rule or rule amendment project. Alternatives are summarized only for those projects requiring an alternatives analysis pursuant to CEQA.

JANUARY 8, 2016

No rules were adopted or amended in January.

FEBRUARY 5, 2016

Two rules were amended in February, as follows:

- 1. Amended Rule 1113 – Architectural Coatings:** Rule 1113 was amended to restrict the small container exemption for some categories, eliminate the small container exemption for categories that do not use the exemption and for high VOC specialty categories, lower some VOC limits, carve out new categories and establish VOC limits, revise definitions, clarify rule language, and remove outdated rule language. A Final EA was prepared for the project and the analysis concluded that there would be no significant adverse environmental impacts. Since no significant adverse environmental impacts were identified, no alternatives analysis was required by CEQA. The SCAQMD Governing Board certified the Final EA and approved the project with the following modifications: the final compliance date was changed to January 1, 2020, and staff was directed to provide a report to the Board in January 2019 on the status of the development of water-based coatings.

Estimated Emission Reductions: VOC (0.88 tons/day). *Cost Effectiveness:* \$1,150 per ton of VOC reduced from lowering the VOC limits and restricting and/or eliminating the Small Container Exemption for certain categories. *CEQA Alternatives:* None, not required. *Socioeconomic Impact:* See Socioeconomic Impact Analysis section. *Source of Funding:* Rule 314 Fees.

- 2. Affirmation of Amendment to Regulation XX to Allow Use of Certified Emission Levels for Certain Rule 219 Exempt Equipment and Amend Definition of "Standard Gas Conditions" to Conform to Existing Practice:** The purpose of this project was to affirm the December 4, 2015 adoption of a specific amendment to the Proposed Amended Regulation XX - Regional Clean Air Incentives Market (RECLAIM). The specific amendment pertained to Rule 2012 provisions to allow the use of certified emissions values for Rule 219 equipment emission reporting and these provisions were presented and adopted as part of the December 4, 2015 Board package, even though the staff report had stated in error that this amendment would not be included. Also, Rule 2011 and 2012 protocol provisions clarifying the calculation of missing data consistent with current practice and other minor clarifications were presented and adopted as part of the December 4, 2015 Board package. While these amendments were legally adopted at that time, staff believed the public should be given a clear opportunity to comment on these amendments. Therefore, staff proposed that the Board affirm these amendments. In addition, SCAQMD staff proposed to amend Rules 2011 and 2012 to clarify a

definition for "Standard Gas Conditions" to conform to existing practice. This amended definition was inadvertently not included in the December 4, 2015 Board package although it was included in the October, 2015 Set Hearing package. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. *Cost Effectiveness:* Not applicable. *CEQA Alternatives:* None, not required. *Socioeconomic Impact:* None. *Source of Funding:* Emission Fees and Annual Operating Fees.

MARCH 4, 2016

No rules were adopted or amended in March.

APRIL 1, 2016

No rules were adopted or amended in April.

MAY 6, 2016

One rule was amended in May, as follows:

- 1. Amended Rule 306 – Plan Fees:** Rule 306 was amended to make administrative changes to extend the payment due date for the remittance of initial plan fees and plan annual renewal fees from 30 to 60 days to be consistent with other fees in Regulation III – Fees. In addition, the amendments to Rule 306 updated the list of plans in subdivision (h) of Rule 306 that would be subject to annual review/annual renewal fees. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. *Cost Effectiveness:* Not applicable. *CEQA Alternatives:* None, not required. *Socioeconomic Impact:* None. *Source of Funding:* Permit Fees and Annual Operating Fees.

JUNE 3, 2016

One rule was amended in June, as follows:

- 1. Amended Rule 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines:** The Board adopted amendments at the December 4, 2015 meeting to provide the regulated community with additional time to comply with the biogas engine limits. Staff was directed to return to the Board with an amendment that would provide relief for one affected facility as expeditiously as possible with the proper CEQA analysis. This single facility operates two landfill gas-fired engines at the Prima Deshecha Landfill, is subject to a power purchase agreement (PPA) that expires on October 1, 2022, and cannot economically meet the established compliance deadline of January 1, 2017. The amendments exempted the facility operator from the emission requirements of the rule, contingent upon the facility submitting a retirement plan for the permanent shutdown of

all equipment subject to this rule at the expiration date of the PPA. A Final Subsequent EA was prepared for the project and the analysis concluded that the project would create significant adverse air quality impacts. No feasible mitigation measures were identified that would reduce or eliminate the impacts to less than significant, so a mitigation monitoring plan was not adopted for the project. Since significant adverse environmental impacts were identified, an alternatives analysis was required by CEQA and prepared that included the following alternatives:

Alternative A - No Project: The proposed project (e.g., amending Rule 1110.2) would not be adopted and the current universe of equipment at biogas facilities will continue to be subject to the NO_x, VOC and CO emission limits according to the current compliance schedule in Rule 1110.2. If the facility cannot comply with the existing rule, operators may shut down their biogas engines and release their gas through their existing flares. The facility would purchase more electricity.

Alternative B - Replace Flares: Through additional rulemaking, biogas facilities not meeting the current Rule 1110.2 biogas emission limits would be required to process the biogas through new cleaner and efficient flares under a separate rule. The new flares' emissions would be lower than the NO_x, CO, and VOC emissions from the proposed project. GHG emissions would increase from power plants needed to generate electricity that would otherwise be generated from the biogas engines and backup diesel engines. All other requirements and conditions in the amendments to Rule 1110.2 would be applicable.

Alternative C - New Micro Turbines: Through additional rulemaking, biogas facilities not meeting the current Rule 1110.2 biogas emission limits would be required to process the biogas through new micro turbines to handle their facilities' biogas under a separate rule. The new microturbine emissions would be comparable to the NO_x, CO, and VOC emissions from the proposed project. GHG emissions would increase from backup diesel engines. All other requirements and conditions in the amendments to Rule 1110.2 would be applicable.

The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: 0.07 tons per day (tpd) NO_x; 0.01 tpd VOC, and 0.08 tpd CO (This amendment delayed a compliance date, so these values represent emission reductions foregone for a previous compliance date). *Cost Effectiveness:* Not required but analyzed per public comment request: \$4,200 to \$58,000 per ton of NO_x, VOC and CO/7. *CEQA Alternatives:* Three alternatives were analyzed, alternatives described above. *Socioeconomic Impact:* None. *Source of Funding:* Emission Fees and Annual Operating Fees.

JULY 8, 2016

No rules were adopted or amended in July.

AUGUST 2016

There was no Governing Board meeting in August, so no rules were adopted or amended.

SEPTEMBER 2, 2016

No rules were adopted or amended in September.

OCTOBER 7, 2016

Three projects amending five rules (e.g., one project amending three rules concurrently, and two other projects amending one rule each) were approved in October, as follows:

- 1. Amended Rule 307.1 - Alternative Fees for Air Toxics Emissions Inventory; Amended Rule 1401 - New Source Review of Toxic Air Contaminants; Amended Rule 1402 - Control of Toxic Air Contaminants from Existing Sources; SCAQMD Public Notification Procedures for Facilities Under the Air Toxics “Hot Spots” Information and Assessment Act (AB 2588) and Rule 1402; and, SCAQMD Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program:** Rule 307.1 was amended to: 1) include a new category of billing for facilities in the Voluntary Risk Reduction Program; 2) to reimburse the SCAQMD for costs associated with public meetings required by Rule 1402; 3) replace the Standard Industrial Classification (SIC) codes with references to the North American Industry Classification System (NAICS) codes instead; 4) replace references to the California Air Pollution Control Officers Association (CAPCOA) “Air Toxics ‘Hot Spots’ Program Facility Prioritization Guidelines, July 1990” with the most current version of SCAQMD’s “Facility Prioritization Procedures For AB 2588 Program;” and, 5) improve clarity. The amendments to Rule 307.1 were determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the amendments to Rule 307.1 were determined to be exempt from CEQA, no alternatives analysis was required.

Rules 1401 and 1402 were amended to remove provisions that require staff to report to the Governing Board regarding changes from OEHHA regarding new or revised toxic air contaminant health values but instead discuss these changes and the potential impacts to permitting and AB 2588 in the AB 2588 Annual Report. Rule 1402 was amended to include a voluntary program to allow facilities to implement early risk reduction measures that go beyond the Action Risk threshold in Rule 1402 with an alternative public notification approach. In addition, Rule 1402 was amended to streamline implementation, improve clarity, and include provisions for potentially high risk level facilities. The “Public Notification Procedures for Phase I and II Facilities Under the Air Toxics ‘Hot Spots’ Information and Assessment Act of 1987 (AB 2588)” was revised and “SCAQMD Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program” has been developed. A Final EA was prepared and the analysis concluded that there would be no significant adverse environmental impacts. Since no significant adverse environmental impacts were identified, no alternatives analysis was required by CEQA. The SCAQMD Governing Board certified the Final EA and approved the project with the following modification: a provision was added to PAR 1402 for High Risk Level Facilities which would require them to implement their Risk Reduction Plans no later than two years from the date of their approved plans instead of 2.5 years.

Estimated Emission Reductions: None. *Cost Effectiveness:* Not applicable. *CEQA Alternatives:* None, not required. *Socioeconomic Impact:* See Socioeconomic Impact

Analysis section. *Source of Funding*: Permit Fees, Emission Fees, and Annual Operating Fees.

2. Amended Regulation IX – Standards of Performance for New Stationary Sources:

The purpose of the amendments was to incorporate by reference federal New Source Performance Standards (NSPS) into Regulation IX. The incorporation by reference of NSPS requirements into Regulation IX recognizes the SCAQMD's authority to implement and enforce these federal regulations at the local level. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. *Cost Effectiveness*: Not applicable. *CEQA Alternatives*: None, not required. *Socioeconomic Impact*: None. *Source of Funding*: Annual Operating Fees.

3. Amended Regulation XX – Regional Clean Air Incentives Market (RECLAIM):

Rule 2002 - Allocations for Oxides of Nitrogen (NO_x) and Oxides of Sulfur (SO_x), which is one rule within Regulation XX – RECLAIM, was amended to address the treatment of RECLAIM Trading Credits (RTCs) upon NO_x RECLAIM facility shutdowns. The objective of these amendments was to prevent NO_x RTCs associated with a shutdown facility from the largest RECLAIM facilities from entering the market and potentially delaying the installation of pollution controls at other RECLAIM facilities. Specifically, the amendments to Rule 2002 established the criteria for determining a facility shutdown and the methodology to calculate the amount of NO_x RTCs by which that facility's future holdings will be reduced. The amendments also included exclusions from these provisions for facilities under the same ownership and for facilities with approved Planned Non-Operational status for up to five years. A facility may request Planned Non-Operational status if it experiences a temporary substantial drop in its NO_x emissions and meets specific criteria. The shutdown provisions would apply to facilities listed in Table 7 and Table 8 of Rule 2002 that have an initial allocation and that shut down entirely. Table 7 and Table 8 facilities in the RECLAIM program are those among the top 90 percent of RTC holders that are subject to the RTC holding reductions adopted for the December 4, 2015 amendments to Regulation XX - NO_x RECLAIM. As such, the amendments to Regulation XX, Rule 2002 were considered to be modifications to the previously approved project (the December 4, 2015 amendments to Regulation XX and the certified December 2015 Final Program EA). SCAQMD staff's review of the amendments showed that while the criteria have been revised from the original proposal in December 2015 relative to the handling of shutdown RTCs, the potential impacts from implementing the amendments were concluded to be the same as what was previously analyzed in the December 2015 Final Program EA. Thus, the amendments for handling shutdown RTCs were concluded to not be expected to trigger any conditions identified in CEQA Guidelines Section 15162. Therefore, an Addendum was determined to be the appropriate CEQA document and as such, an Addendum to the December 2015 Final Program EA for Proposed Amended Regulation XX – Regional Clean Air Incentives Market (RECLAIM) was prepared. The analysis in the Addendum

concluded that there would be no significant adverse environmental impacts. Since no significant adverse environmental impacts were identified, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. *Cost Effectiveness:* Not applicable. *CEQA Alternatives:* None, not required. *Socioeconomic Impact:* None. *Source of Funding:* Permit Fees, Emission Fees, and Annual Operating Fees.

NOVEMBER 4, 2016

One project amending two rules was approved in November, as follows:

- 1. Amended Rule 1302 – Definitions; and, Amended Rule 1325 – Federal PM2.5 New Source Review Program:** Rule 1302 was amended to: 1) revise the definition of the term Allocation to remove incorrect references to Emission Reduction Credits; and, 2) revise the definition of the term Major Polluting Facility to lower the SOx potential to emit thresholds for facilities located in the South Coast Air Basin and Riverside County portion of the Salton Sea Air Basin from 100 tons per year (tons/year) to 70 tons/year, for consistency with the serious non-attainment classification for PM because SOx is a precursor to PM formation. Rule 1325 was amended to: 1) revise the definition of the term Major Polluting Facility by clarifying that the Major Source threshold of 100 tons/year for PM2.5 and PM2.5 precursors will remain in effect until August 14, 2017 or until the effective date of U.S. EPA’s approval of these amendments to Rule 1325, whichever is later; 2) add a new Major Source threshold of 70 tons/year for PM2.5 and PM2.5 precursors to go into effect after August 14, 2017 or upon the effective date of U.S. EPA’s approval of these amendments to Rule 1325, whichever is later; 3) expand the definition of the term Precursors to include VOC and ammonia because these pollutants are precursors to PM2.5 formation, to go into effect after August 14, 2017 or upon the effective date of U.S. EPA’s approval of these amendments to Rule 1325, whichever is later; 4) revise the definition of the term Significant to establish new thresholds for VOC and ammonia at 40 tons/year each; 5) revise subdivision (f) - Two Year Limit on Facility Exemption, to be consistent with the proposed revisions to the definition of Major Source threshold; and, 6) add new subdivision (j) – Offset Exemption for Regulatory Compliance, to allow an exemption from the requirement to provide offsets under limited circumstances. Other minor changes were also included to improve clarity and provide consistency throughout both rules. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project as proposed.

Estimated Emission Reductions: None. *Cost Effectiveness:* Not applicable. *CEQA Alternatives:* None, not required. *Socioeconomic Impact:* None. *Source of Funding:* Permit Fees, Emission Fees, and Annual Operating Fees.

DECEMBER 2, 2016

One project amending the BACT Guidelines, was approved in December, as follows:

1. Amended Best Available Control Technology (BACT) Guidelines: SCAQMD's New Source Review (NSR) regulations require applicants to use Best Available Control Technology (BACT) for new sources, relocated sources, and for modifications to existing sources that may result in an emission increase of any nonattainment air contaminant, any ozone depleting compound (ODC), or ammonia. Regulation XIII – New Source Review also requires the Executive Officer to periodically publish BACT Guidelines that establish the procedures and the BACT requirements for commonly permitted equipment. The BACT Guidelines were amended to update the Overview, Parts A, B, C and D, and to add Parts E and F in order to maintain consistency with recent changes to SCAQMD rules, and state and federal requirements. The amendments were determined to: 1) not result in more stringent requirements than those already required by current regulations; and 2) have no potential to adversely impact air quality or any other environmental topic area. The project was determined to be exempt from CEQA and a Notice of Exemption was filed with the County Clerks of Los Angeles, Orange, Riverside and San Bernardino counties. Since the project was determined to be exempt from CEQA, no alternatives analysis was required. The SCAQMD Governing Board approved the project with the following modifications: 1) staff was directed to work with industry and other stakeholders on assessing ultraviolet/electron beam (UV/EB) technology as an alternative to meeting BACT and the analysis should include BACT determinations by other air districts; and 2) staff should present the findings to the Stationary Source Committee by June 2017.

Estimated Emission Reductions: None. *Cost Effectiveness:* Not applicable. *CEQA Alternatives:* None, not required. *Socioeconomic Impact:* None. *Source of Funding:* Permit Fees, Emission Fees, and Annual Operating Fees.

CEQA LEAD AGENCY PROJECTS

In 2016, one lead agency project with a certified CEQA document was approved by the SCAQMD's Executive Officer on June 7, 2016, as summarized below.

- 1. June 2016 Addendum to the April 2012 Final Subsequent Environmental Impact Report (SEIR) for the Sunshine Gas Producers Renewable Energy Project:** Sunshine Gas Producers proposed to revise their Renewable Energy Project to increase the heat input rating on all five of its landfill gas turbines without requiring any physical modifications. As a result of the increase in fuel consumption by the landfill gas-fired turbines, less gas will be sent to and combusted in the Sunshine Canyon Landfill flares. The Renewable Energy Project was originally evaluated in the April 2012 Final SEIR. The SCAQMD evaluated the proposed changes to the April 2012 Final SEIR and determined that the project, as revised, would not create any new significant adverse environmental impacts or make substantially worse any existing significant adverse environmental impacts, and only minor additions or changes would be necessary to make the April 2012 Final SEIR adequate for the revised project. Since no significant adverse environmental impacts were identified, no alternatives analysis was required. The project was approved by the SCAQMD's Executive Officer.

SOCIOECONOMIC IMPACT ANALYSES

In 2016, eight rules were amended with three of them combined into one project. Out of these eight amended rules, two rules had socioeconomic impacts. Additionally, one rule, Rule 320, did not undergo any amendments that were brought to the SCAQMD Governing Board, but because it contains a requirement for an automatic annual California Consumer Price Index (CPI) adjustment that has associated socioeconomic impacts, this rule has also been included in this summary.

Lastly, staff prepared a Socioeconomic Assessment in order to inform decision-makers and stakeholders about the potential costs and benefits of the 2016 AQMP and how the associated socioeconomic impacts would affect communities within the region. Although the 2016 AQMP was adopted at the March 3, 2017 Governing Board Meeting and not during calendar year 2016, information is provided here as it represents a substantial amount of staff time spent in 2016.

Rule Amendments with Socioeconomic Impacts

Amended Rule 1113—Architectural Coatings (February 2016)

Rule 1113 was amended to limit the small container exemption (SCE) for certain categories, proposed new categories with VOC limits, eliminate categories regulated under a different rule, and reduce the VOC limit of some architectural coating categories to reflect currently available products.

The amendments to Rule 1113 affected all architectural coating manufacturers and wholesalers (approximately 200) who sell architectural coatings into or within the SCAQMD. The annual cost of compliance was estimated to be \$368,000. A cost

effectiveness of \$1,150 per ton of VOC reduced was estimated from lowering the VOC limits and restricting and/or eliminating the SCE for certain categories. It has been a standard socioeconomic practice that, when the annual compliance cost is less than one million current U.S. dollars, REMI is not used to simulate jobs and macroeconomic impacts, because the resultant impacts would be diminutive relative to the baseline regional economy.

Amended Rule 1402—Control of Toxic Air Contaminants from Existing Sources; Amended Rule 1401—New Source Review of Toxic Air Contaminants; and Amended Rule 307.1—Alternative Fees for Air Toxics Emissions Inventory (October 2016)

At its June 2015 meeting, the SCAQMD Governing Board adopted Rule 1402—Control of Toxic Air Contaminants from Existing Sources, incorporating revised OEHHA Guidelines. The Governing Board directed staff to work with stakeholders to incentivize early risk reductions beyond those required under Rule 1402, to assess public notification procedures, and explore alternatives for such facilities. In addition, the Governing Board also directed staff to streamline implementation of Rule 1402, if necessary.

Under the amendments to Rule 1402, 32 facilities were estimated to likely participate in the Voluntary Risk Reduction Program and 24 of these would potentially need to install additional air pollution control equipment beyond the air pollution control equipment identified in the June 2015 rule amendments. The associated cost of the amendments to Rule 1402 was estimated based on the types of air pollution control equipment that could potentially reduce the total facility risk below the Voluntary Risk Threshold. The cost impacts presented herein should be viewed with the caveat that all additional costs are voluntary. Facilities that do not wish to participate may follow the traditional risk assessment and reduction pathway for which all costs were already analyzed in the June 2015 rule amendments.

The associated total annual compliance cost of implementing the amendments to Rule 1402 was estimated to range from \$1.07 million to \$1.17 million, depending on the real interest rate assumed (1%-4%). The total cost mainly consists of the cost of installing and operating control equipment. The compliance costs estimated in the analysis are associated with additional pollution control equipment costs only and do not take into account other potential costs, such as some permitting and administrative costs, as these cost would have occurred independent of the proposed amendments. There are no expected cost impacts associated with the guidance documents because these guidance documents are administrative in nature and do not impose any additional costs to the affected facilities.

SCAQMD does not conduct a dollar per ton cost effectiveness for risk-based regulations since many other factors besides the amount of pollution affects the risk such as the toxic potency and the location of receptors. Rule 1402 regulates toxics, as such the cost effectiveness analysis is not applicable here.

Amended Rule 1402 was expected to result in approximately 10 annual jobs foregone between 2017 and 2030 when it was assumed that facilities would finance capital costs of control equipment at a 4-percent real interest rate and that all equipment and services would

be purchased from businesses located within the region. The projected job impacts represent less than 0.001 percent of the total employment in the four-county region.

In combination with the amendments to Rule 1402, amended Rule 1401 removed the staff requirement to report OEHHA changes to risk values to the Governing Board and instead consolidated reporting changes and their potential impacts in the SCAQMD AB 2588 Annual Report. The amendments to Rule 1401 were intended to provide additional clarity and were administrative in nature, and therefore, were determined to not have any adverse socioeconomic impacts.

Rule 307.1 was amended with Rules 1401 and 1402 to include a fee for Voluntary Risk Reduction facilities and a provision to either directly pay or reimburse the SCAQMD for costs associated with public meetings. The fee for Voluntary Risk Reduction facilities is identical to the fee the facilities would have had to pay with traditional risk reduction, and in some cases is less if the facility is required to submit a Health Risk Assessment and/or Risk Reduction Plan. The fee for public meetings is identical to the cost of the facility conducting their own public meeting. The amended requirements in Rule 307.1 were intended to provide additional clarity and are administrative and informational in nature, and would not have any adverse socioeconomic impacts.

Existing Rule with Ongoing Socioeconomic Impacts

Rule 320—Automatic Adjustment Based on Consumer Price Index (CPI) for Regulation III Fees (March 2016)

Pursuant to Rule 320, an across-the-board 2.4-percent increase in fee rates (equivalent to the change in the California CPI from December 2014 to December 2015) occurred on July 1, 2016. The October 29, 2010 SCAQMD Governing Board Resolution annually requires, by March 15, an assessment of the increase in fee rates based on the previous year's CPI. Rule 320 does not affect air quality or emission limits and as such no socioeconomic and cost effectiveness analyses are required. A socioeconomic assessment was nonetheless conducted to assess the cost impacts of the fee increase. In addition, the analysis provides background information, such as historical trends of SCAQMD revenues from various fees and sectoral distributions of these fees.

Nearly all the facilities regulated by the SCAQMD would be affected by the proposed fee increases and these facilities belong to every sector of the economy. The fees examined included emissions fees, permit processing fees, annual permit renewal fees, toxic hot spot fees, source testing fees, and a portion of fees under Rule 2202 – On-Road Motor Vehicle Mitigation Options.

The across-the-board CPI-based fee rate increase would bring additional revenue totaling \$1.94 million to the SCAQMD. Based on the fee categories examined in the analysis, the manufacturing sector as a whole would experience the largest increase in fees (approximately \$0.84 million for about 4,000 facilities), followed by the services sector (approximately \$0.35 million for about 11,000 facilities) and the retail trade sector (approximately \$0.24

million for about 4,100 facilities). Within the manufacturing sector, the petroleum and coal products manufacturing industry, mostly comprised of refineries, will experience an increase of approximately \$0.36 million.

Rule Amendments without Socioeconomic Impacts

Amended Rule 1110.2—Emissions from Gaseous and Liquid-Fueled Engines (June 2016)

Rule 1110.2 regulates oxides of nitrogen (NO_x), carbon monoxide (CO), and volatile organic compound (VOC) emissions from liquid and gas fueled internal combustion engines operating in the SCAQMD producing more than 50 rated brake horsepower (bhp). Amended Rule 1110.2 delayed implementation of new concentration limits for biogas-fired engines at affected facilities from 2016 to between 2017 and 2019. In addition, amended Rule 1110.2 would affect fewer biogas-fired engines. The additional time for compliance and five fewer affected engines would result in potential savings for affected facilities. As such, no adverse socioeconomic impact was anticipated for amended Rule 1110.2.

Amended Rule 2002—Allocations for Oxides of Nitrogen (NO_x) and Oxides of Sulfur (SO_x) (October 2016)

Regulation XX was amended on December 4, 2015 to achieve programmatic NO_x RECLAIM trading credit (RTC) reductions from compliance years 2016 through 2022. Among the proposed amendments considered at that time was a provision to address RTCs from the shutdown of facilities. The Governing Board motion that was approved did not include the shutdown provisions and directed staff to return to the Governing Board, after further analysis and discussion with the RECLAIM working group, with a proposal that would allow a closer alignment of shutdown credits in the RECLAIM program and command and control programs, short of full forfeiture.

Amendments to Rule 2002 were crafted to prevent NO_x RTCs associated with a facility shutdown from entering the market and potentially delaying the installation of pollution controls at other RECLAIM facilities. Specifically, the amendments established the criteria for determining a facility shutdown and the methodology to calculate the amount of NO_x RTCs by which that facility's future holdings would be reduced. Amended Rule 2002 included exclusions from these provisions for facilities under the same ownership and for facilities with approved planned non-operational status for up to five years.

Rule 2002, as amended, would not be expected to create new socioeconomic impacts resulting in new or more severe significant effects beyond those analyzed in the previous Final Socioeconomic Report for the December 4, 2015 amendments to Regulation XX. Specifically, staff acknowledged in the previous report that the provision of surrendering and retiring NO_x RTCs from the market could potentially affect the credit market and prices, and that the magnitude of the potential impact would depend heavily on the usual market behavior of each facility before it decides to shut down. In the same report, a market analysis was included which analyzed the potential incremental compliance cost for the affected

facilities under various credit price scenarios, from no effects on the current market price to the worst-case scenario where the discrete NOx RTC price reaches the threshold of \$22,500 per ton and thus would trigger the price stabilizing mechanism set forth in Rule 2002.

Amended Rule 1302—Definitions; and, Amended Rule 1325—Federal PM2.5 New Source Review Program (November 2016)

Amended Rule 1302 set the definitions used in Regulation XIII—New Source Review. Since the amendments were administrative in nature, no socioeconomic impacts were expected.

Rule 1325 incorporates U.S. EPA’s requirements for PM2.5 into Regulation XIII – New Source Review. The rule mirrors federal requirements and is applicable to major polluting facilities, which are defined by rule as sources with actual emissions, or the potential to emit, 100 tons per year or more of PM2.5 or its precursors. Based on comments received from the U.S. EPA regarding SIP approvability of Rule 1325, amendments were adopted to incorporate administrative changes to definitions, provisions and exclusions.

No socioeconomic impact assessment was required for amended Rule 1325 because the amendments do not “significantly affect air quality or emissions limitations.” (Health and Safety Code Section 40440.8(a)).

2016 AQMP Socioeconomic Assessment

In order to inform decision-makers and stakeholders about the potential costs and benefits of the 2016 AQMP and how the associated socioeconomic impacts would affect communities within the region, a Socioeconomic Assessment was prepared. Based on recommendations made by Abt Associates in 2014 to improve the socioeconomic assessment, a concerted effort among SCAQMD staff, scientific advisors, sister agencies, the public, and the business community was made to conduct an enhanced analysis that not only utilized state-of-the-art methods, but was more accessible and transparent to the general public. While many of Abt Associates’ recommendations have been implemented, staff continues to update and refine its methodologies for subsequent AQMPs and socioeconomic assessments for clean air rules and programs.

The analyses in the 2016 AQMP Socioeconomic Assessment were conducted using two major modeling tools: the Regional Economic Model, Inc. (REMI)’s Policy Insight Plus, a policy simulation program for regional macroeconomic impacts, and the U.S. Environmental Protection Agency’s environmental Benefits Mapping and Analysis program (BenMAP). Total incremental costs, inclusive of the cost of incentives, were compiled for proposed control measures with quantified emission reductions. Modeled air quality data for the Basin, together with mathematical functions and parameters based on the most updated epidemiological and economic studies, were used in BenMAP to quantify public health benefits due to reduced exposure to air pollution. Public health benefits were combined with incremental costs to estimate a range of regional jobs and other macroeconomic impacts from implementing the Final 2016 AQMP. Projected changes in health risk and monetized public

health benefits were also used to analyze how implementation of the Final 2016 AQMP may affect environmental justice (EJ) in the Basin, as evaluated by a number of alternative metrics.

Enhancements made to the 2016 AQMP Socioeconomic Assessment

First and foremost, this report was designed to be accessible and transparent to the general public. The main document presented the general picture of socioeconomic impacts while clearly defining methodologies employed and data sources utilized. Careful consideration was given to report not only overall impacts, but to also discuss uncertainty and provide a range of estimates through sensitivity analyses. When quantification of uncertainty was not feasible, a qualitative discussion about uncertainty sources, the expected magnitude, and impact of uncertainty (i.e. negative or positive effect on results) was added. In addition, the appendices provided technical readers with more details about the analyses, while an executive summary geared towards a more general audience condensed the analyses and results. As each component of the 2016 Socioeconomic Assessment was developed, it was presented at various meetings to the STMPR Advisory Group, the AQMP Advisory Group, and interested parties to enhance transparency and solicit feedback. Staff also presented the preliminary outline of this report and described analysis methodologies at six AQMP scoping meetings in July 2016.

To implement Abt's recommendation to clearly define the baseline for socioeconomic analysis and clarify whether the baseline should include SCAG's TCMs, staff worked closely with SCAG staff and consultants from REMI and the Center for Continuing Study of the California Economy. Following many rounds of communication and discussions, consensus was reached that TCMs, along with other components of the 2016 RTP/SCS, should be considered as baseline for the 2016 AQMP socioeconomic assessment, and that, for informational purposes, the benefits and costs associated with TCMs would be provided separately in the 2016 AQMP Appendix IV-C: Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures. This baseline definition is also consistent with the AQMP baseline inventory of air pollutant emissions, which considers any emission reductions associated with SCAG's 2016 RTP/SCS and all its sub-components (TCMs included) as accounted for in the baseline. Additionally, as in the past, the default baseline forecasts of population and jobs in the REMI model were adjusted in accordance with the population and job projections from SCAG's 2016 Growth Forecast, which was also largely used to project future baseline emissions of air pollutants.

In order to improve the public health benefits analysis conducted in the socioeconomic assessment, SCAQMD commissioned IEC to conduct an updated literature review of epidemiological studies to quantify concentration-response functions, which quantitatively describe the relationship between exposure to air pollution and various health endpoints, and economic valuation functions, which are used to monetize quantified public health benefits. Based on the review of literature, IEC provided staff with recommendations on which health endpoints to include in the public health benefits analysis of the Final 2016 AQMP and which mathematical functions should be used to evaluate and quantify benefits. IEC also provided recommendations on the use of the U.S. EPA's BenMAP tool, including choices of

data input, assumptions and procedures that were appropriate for the functions used in the analysis. IEC recommendations and the analysis results were presented during each step of the process to the STMPR Advisory Group for review and guidance. In addition to IEC recommendations, the BenMAP operations were further reviewed and confirmed as appropriate by Dr. Jin Huang, a former project manager for the 2014 Abt review and the STMPR expert on BenMAP analysis.

IEC also reviewed the most updated literature of environmental justice studies and analytical tools. Based on the review, IEC recommended alternative EJ screening definitions and the most appropriate screening tools that have been developed to help identify EJ communities for socioeconomic assessment purposes. Additionally, IEC recommended the state-of-science methodology to analyze the impacts of the 2016 AQMP on health risk distributions between and within EJ and non-EJ communities. To engage the community and develop the most applicable approach in the region, the 2016 AQMP Socioeconomic Assessment Environmental Justice Working Group was formed to review and provide comments and suggestions on IEC's recommendations and staff's analysis results. The Working Group's feedback helped inform and enhance the EJ analyses in this report.

Finally, SCAQMD commissioned a third-party evaluation by Dr. Michael Lahr on REMI's modeling of nonmarket benefits and Abt's further recommendation to evaluate how to improve the input of these benefits into REMI. REMI models non-market benefits as an improvement to regional amenities, or quality of life; however, the 2014 Abt Report indicated that there remained methodological uncertainties as to how these benefits could be best incorporated into macroeconomic modeling and asked staff to keep abreast of developments at the U.S. EPA's Science Advisory Board Panel on Economy-Wide Modeling. While it is generally recognized that location-specific amenities such as climate, clean air, public safety, and other public service provisions, make a region more attractive to economic migrants, the 2014 Abt Report also indicated that prospective economic migrants may consider air quality differently than other types of amenities when making their location choices; however, such differences, if any, were not taken into account under the prior modeling approach. As such, Abt recommended identifying methods to properly normalize the magnitude of adjustments made to the sub-region specific amenity coefficients in REMI's migration equation, which links air quality change with the relative attractiveness of one area compared to another. Based on the qualitative conclusion made in the third-party evaluation, staff conducted a sensitivity analysis of job impacts where the REMI input related to the non-market portion of public health benefits was discounted by half, therefore significantly lessening the magnitude of adjustments to the amenity coefficients in REMI. Staff preliminarily concluded that this adjustment is a major determinant to the non-market benefits related job impact; however, further research is needed to determine the proper scaling of the related REMI input.

Future Enhancements

Staff will continue working to update the technical aspects of its analyses which includes updating methodologies to quantify visibility, material, and agricultural benefits, developing methods to properly normalize the magnitude of adjustment to the amenity coefficient in

REMI, evaluating the use of other modeling tools such as partial equilibrium modeling to supplement REMI for small scale impacts, updating best practices for estimating small business impacts, and closely monitoring the U.S. EPA Science Advisory Board's Economy-Wide Modeling Panel discussions and recommendations, particularly on the macroeconomic modeling of non-market benefits. Retrospective studies, when feasible, will be considered as part of the implementation plan to enhance the uncertainty analysis.

CHAPTER II
ENGINEERING AND PERMITTING ACTIVITIES

ENGINEERING AND PERMITTING

As shown in Table 1 below, during calendar year 2016, SCAQMD dispositioned a total of 9,872 applications. The majority of these applications were for Permits to Operate (3,725), Area Sources & Certified/Registrations (2,327), and Changes of Operators (1,511). Also, 1,200 permits were not renewed. The total number of dispositioned applications for 2016 is about 13% higher than the total for 2015, mainly attributed to the SCAQMD’s Permit Application Backlog Reduction efforts.

TABLE - 1	
Permit Applications Completed During Calendar Year 2016	
Type	Count
Permits to Construct	595
Permits to Operate	3725*
Changes of Operator	1511
Denials	77
Cancellations	784
ERCs	185
Plans	270
TV/RECLAIM	398
Area Sources & Certified/Registrations	2327
Total	9872
<i>Permits Not Renewed</i>	1200

*This includes 1,454 applications for Permit to Construct that were issued as Permit to Construct/Operate.

TABLE - 2
Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
111219	Other Vegetable (except Potato) and Melon Farming	0	0	0	0	0	0	0	0	6	0	6
111310	Orange Groves	0	0	0	0	0	0	0	0	3	0	3
111320	Citrus (except Orange) Groves	0	1	0	0	0	0	0	0	0	0	1
111332	Grape Vineyards	0	0	0	0	0	0	0	0	4	0	4
111421	Nursery and Tree Production	0	0	0	0	0	0	0	0	0	1	1
111998	All Other Miscellaneous Crop Farming	0	1	0	0	0	0	0	0	1	1	3
112120	Dairy Cattle and Milk Production	0	1	0	0	0	0	1	0	0	4	6
112310	Chicken Egg Production	0	0	0	0	0	0	0	0	0	2	2
112990	All Other Animal Production	0	4	1	0	1	0	0	0	2	0	8
115112	Soil Preparation, Planting, and Cultivating	0	2	0	0	0	0	0	0	0	0	2
115114	Postharvest Crop Activities (except Cotton Ginning)	0	1	0	0	0	0	0	0	0	0	1
115210	Support Activities for Animal Production	0	2	0	0	1	0	0	0	0	0	3
211111	Crude Petroleum and Natural Gas Extraction	13	43	4	0	50	1	20	26	6	1	164
212299	All Other Metal Ore Mining	0	0	0	0	0	0	0	0	0	2	2

TABLE - 2
Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
212311	Dimension Stone Mining and Quarrying	0	4	0	0	0	0	0	0	0	0	4
212312	Crushed and Broken Limestone Mining and Quarrying	0	2	0	0	0	0	0	0	0	0	2
212321	Construction Sand and Gravel Mining	0	7	0	0	2	0	0	0	0	0	9
213112	Support Activities for Oil and Gas Operations	14	12	17	0	9	3	1	7	1	0	64
221118	Other Electric Power Generation	1	17	0	0	36	20	0	7	4	3	88
221122	Electric Power Distribution	0	0	0	0	0	0	0	0	1	0	1
221210	Natural Gas Distribution	0	15	0	0	0	0	0	1	0	0	16
221310	Water Supply and Irrigation Systems	0	55	0	0	1	0	8	9	11	20	104
221320	Sewage Treatment Facilities	0	16	0	0	0	0	0	0	0	0	16
236115	New Single-Family Housing Construction (except For-Sale Builders)	0	11	1	0	0	0	4	0	14	9	39
236116	New Multifamily Housing Construction (except For-Sale Builders)	0	0	0	0	0	0	0	0	3	1	4
236118	Residential Remodelers	1	0	0	0	0	0	0	0	32	9	42
236210	Industrial Building Construction	0	0	0	0	0	0	0	0	7	0	7

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
236220	Commercial and Institutional Building Construction	0	13	0	0	0	0	8	0	8	6	35
237110	Water and Sewer Line and Related Structures Construction	0	5	0	2	1	0	2	0	0	1	11
237120	Oil and Gas Pipeline and Related Structures Construction	0	0	1	4	0	0	1	0	0	6	12
237210	Land Subdivision	2	4	0	0	1	0	0	0	13	4	24
237310	Highway, Street, and Bridge Construction	9	24	0	0	3	0	2	1	7	0	46
237990	Other Heavy and Civil Engineering Construction	0	8	0	0	0	0	3	1	0	9	21
238110	Poured Concrete Foundation and Structure Contractors	0	3	1	0	0	0	2	0	0	5	11
238130	Framing Contractors	0	1	0	0	0	0	0	1	0	1	3
238140	Masonry Contractors	2	1	0	0	0	0	0	0	0	0	3
238160	Roofing Contractors	0	6	4	0	2	0	0	4	2	7	25
238190	Other Foundation, Structure, and Building Exterior Contractors	0	0	0	0	1	0	0	0	0	0	1
238210	Electrical Contractors and Other Wiring Installation Contractors	13	1	0	0	0	0	1	2	3	20	40

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
238220	Plumbing, Heating, and Air-Conditioning Contractors	0	6	0	0	0	0	1	2	2	1	12
238310	Drywall and Insulation Contractors	0	1	0	0	0	0	0	0	6	10	17
238320	Painting and Wall Covering Contractors	2	6	0	0	1	0	0	0	2	4	15
238340	Tile and Terrazzo Contractors	0	2	0	0	0	0	0	0	0	0	2
238350	Finish Carpentry Contractors	0	3	0	0	0	0	0	0	0	1	4
238390	Other Building Finishing Contractors	0	3	0	0	0	0	0	0	0	0	3
238910	Site Preparation Contractors	0	1	0	0	1	0	7	0	32	47	88
238990	All Other Specialty Trade Contractors	2	22	0	0	11	0	5	0	95	17	152
311111	Dog and Cat Food Manufacturing	1	0	0	0	1	0	0	2	0	0	4
311119	Other Animal Food Manufacturing	0	1	0	0	0	0	0	0	0	0	1
311211	Flour Milling	0	7	30	0	0	0	0	0	0	0	37
311225	Fats and Oils Refining and Blending	0	0	0	0	0	0	0	0	1	0	1
311340	Nonchocolate Confectionery Manufacturing	0	1	0	0	0	0	0	0	0	0	1

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
311411	Frozen Fruit, Juice, and Vegetable Manufacturing	0	1	0	0	0	0	0	0	0	0	1
311412	Frozen Specialty Food Manufacturing	0	1	0	0	0	0	0	0	2	0	3
311422	Specialty Canning	0	0	0	0	0	0	0	0	1	0	1
311511	Fluid Milk Manufacturing	0	0	0	0	0	0	0	0	2	0	2
311514	Dry, Condensed, and Evaporated Dairy Product Manufacturing	0	2	0	0	0	0	0	0	0	0	2
311611	Animal (except Poultry) Slaughtering	0	0	0	0	3	0	0	0	5	0	8
311613	Rendering and Meat Byproduct Processing	0	0	0	0	0	0	0	0	1	0	1
311710	Seafood Product Preparation and Packaging	0	2	0	0	0	0	0	0	0	0	2
311811	Retail Bakeries	0	8	0	0	0	0	1	1	0	0	10
311812	Commercial Bakeries	9	7	0	0	11	0	0	3	31	0	61
311813	Frozen Cakes, Pies, and Other Pastries Manufacturing	0	0	0	0	5	0	0	0	0	0	5
311821	Cookie and Cracker Manufacturing	0	4	0	0	2	0	0	0	1	0	7
311824	Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour	0	12	1	0	0	0	0	0	0	0	13

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
311830	Tortilla Manufacturing	0	2	0	0	0	0	0	0	0	0	2
311911	Roasted Nuts and Peanut Butter Manufacturing	4	0	9	0	0	0	0	0	0	0	13
311920	Coffee and Tea Manufacturing	0	5	0	0	2	0	0	0	0	0	7
311930	Flavoring Syrup and Concentrate Manufacturing	0	3	0	0	8	0	0	0	1	0	12
311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing	0	1	0	0	0	0	0	0	0	0	1
311942	Spice and Extract Manufacturing	0	3	0	0	1	0	0	1	4	0	9
311999	All Other Miscellaneous Food Manufacturing	5	15	0	0	2	0	0	0	2	0	24
312111	Soft Drink Manufacturing	1	1	0	0	0	0	0	0	2	0	4
312112	Bottled Water Manufacturing	0	1	0	0	0	0	0	0	0	0	1
312120	Breweries	0	3	0	0	0	0	0	3	5	0	11
313210	Broadwoven Fabric Mills	1	3	0	0	6	0	0	3	0	2	15
313310	Textile and Fabric Finishing Mills	0	5	0	0	0	0	0	1	2	8	16
313320	Fabric Coating Mills	0	1	0	0	2	0	0	1	0	0	4
314110	Carpet and Rug Mills	0	0	0	0	2	0	0	0	0	0	2
314120	Curtain and Linen Mills	0	0	0	0	0	0	0	1	0	0	1

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
314999	All Other Miscellaneous Textile Product Mills	0	4	0	0	0	0	0	0	0	0	4
315190	Other Apparel Knitting Mills	2	3	0	0	0	0	0	0	0	0	5
315240	Women's, Girls', and Infants' Cut and Sew Apparel Manufacturing	0	1	0	0	0	0	0	0	0	0	1
316210	Footwear Manufacturing	0	0	0	0	1	0	0	0	0	0	1
321113	Sawmills	0	0	0	0	0	0	0	0	0	1	1
321911	Wood Window and Door Manufacturing	0	2	0	0	0	0	0	0	0	3	5
321918	Other Millwork (including Flooring)	0	1	0	0	0	0	0	0	0	3	4
321991	Manufactured Home (Mobile Home) Manufacturing	0	9	0	0	0	0	1	3	0	0	13
321999	All Other Miscellaneous Wood Product Manufacturing	0	0	0	0	0	0	0	0	0	2	2
322121	Paper (except Newsprint) Mills	1	8	0	0	9	0	0	4	0	0	22
322130	Paperboard Mills	0	10	0	0	1	0	0	4	0	0	15
322211	Corrugated and Solid Fiber Box Manufacturing	0	9	6	0	0	0	0	5	1	0	21

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
322212	Folding Paperboard Box Manufacturing	1	0	0	0	0	0	0	1	0	0	2
322219	Other Paperboard Container Manufacturing	0	1	2	0	0	0	0	0	0	0	3
322220	Paper Bag and Coated and Treated Paper Manufacturing	0	10	0	0	0	0	0	0	0	8	18
322299	All Other Converted Paper Product Manufacturing	2	0	0	0	5	0	0	1	1	3	12
323111	Commercial Printing (except Screen and Books)	5	50	8	0	7	1	1	8	3	15	98
323113	Commercial Screen Printing	0	1	0	0	0	0	0	3	0	0	4
324110	Petroleum Refineries	8	18	363	0	36	5	18	53	0	0	501
324120	Asphalt Paving, Roofing, and Saturated Materials Manufacturing	0	0	9	0	0	0	0	0	0	0	9
324121	Asphalt Paving Mixture and Block Manufacturing	9	17	0	0	0	0	0	5	0	0	31
324122	Asphalt Shingle and Coating Materials Manufacturing	7	7	0	0	9	2	0	6	0	0	31
324191	Petroleum Lubricating Oil and Grease Manufacturing	2	23	0	0	7	2	0	2	0	0	36

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
325110	Petrochemical Manufacturing	1	2	0	0	0	0	0	0	2	0	5
325120	Industrial Gas Manufacturing	0	4	0	0	2	1	1	1	0	0	9
325130	Synthetic Dye and Pigment Manufacturing	8	23	0	0	0	0	0	0	0	0	31
325180	Other Basic Inorganic Chemical Manufacturing	6	13	0	0	4	0	0	2	1	0	26
325199	All Other Basic Organic Chemical Manufacturing	0	0	0	0	3	0	0	0	0	0	3
325211	Plastics Material and Resin Manufacturing	3	10	0	0	8	0	0	0	2	1	24
325212	Synthetic Rubber Manufacturing	0	0	0	0	2	0	0	0	0	0	2
325311	Nitrogenous Fertilizer Manufacturing	0	9	0	0	0	0	0	0	0	0	9
325312	Phosphatic Fertilizer Manufacturing	0	1	0	0	0	0	0	0	0	0	1
325320	Pesticide and Other Agricultural Chemical Manufacturing	0	2	0	0	0	0	0	0	0	0	2
325411	Medicinal and Botanical Manufacturing	0	6	0	0	0	0	0	0	0	0	6
325412	Pharmaceutical Preparation Manufacturing	2	8	4	0	0	1	0	0	10	0	25

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
325414	Biological Product (except Diagnostic) Manufacturing	1	0	0	0	0	0	0	1	0	0	2
325510	Paint and Coating Manufacturing	1	20	0	0	1	0	0	0	1	0	23
325520	Adhesive Manufacturing	0	9	0	0	0	0	0	0	0	0	9
325611	Soap and Other Detergent Manufacturing	0	11	0	0	0	0	0	0	0	0	11
325613	Surface Active Agent Manufacturing	0	0	0	0	0	0	0	1	0	0	1
325620	Toilet Preparation Manufacturing	0	6	0	0	0	0	0	0	2	0	8
325910	Printing Ink Manufacturing	0	5	0	0	10	0	0	0	0	0	15
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	0	9	0	0	0	0	0	0	2	0	11
326111	Plastics Bag and Pouch Manufacturing	2	7	0	0	1	0	0	0	0	0	10
326113	Unlaminated Plastics Film and Sheet (except Packaging) Manufacturing	1	3	0	0	6	0	1	2	0	0	13
326130	Laminated Plastics Plate, Sheet (except Packaging), and Shape Manufacturing	0	2	0	0	0	0	1	1	0	12	16
326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing	0	4	0	0	1	0	0	0	0	0	5

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
326160	Plastics Bottle Manufacturing	0	13	0	0	0	0	0	0	0	0	13
326199	All Other Plastics Product Manufacturing	14	48	0	0	1	0	0	5	0	2	70
326299	All Other Rubber Product Manufacturing	0	7	0	0	7	0	0	0	0	0	14
327120	Clay Building Material and Refractories Manufacturing	1	10	0	0	4	0	0	0	1	0	16
327211	Flat Glass Manufacturing	0	1	0	0	0	0	0	0	0	0	1
327212	Other Pressed and Blown Glass and Glassware Manufacturing	0	3	0	0	0	0	0	1	0	0	4
327213	Glass Container Manufacturing	6	1	0	0	0	0	0	1	0	0	8
327215	Glass Product Manufacturing Made of Purchased Glass	0	1	0	0	0	0	0	0	1	0	2
327310	Cement Manufacturing	0	0	0	0	10	0	2	0	1	0	13
327320	Ready-Mix Concrete Manufacturing	0	24	0	0	0	0	0	0	0	0	24
327331	Concrete Block and Brick Manufacturing	0	8	0	0	0	0	0	0	0	0	8
327390	Other Concrete Product Manufacturing	4	15	12	0	1	0	0	3	0	0	35

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
327410	Lime Manufacturing	0	0	14	0	0	0	0	0	0	0	14
327420	Gypsum Product Manufacturing	3	0	0	0	0	0	0	1	0	0	4
327910	Abrasive Product Manufacturing	0	0	0	0	3	0	0	0	0	0	3
327991	Cut Stone and Stone Product Manufacturing	0	2	0	0	0	0	0	0	0	0	2
327992	Ground or Treated Mineral and Earth Manufacturing	2	1	0	0	1	0	0	2	0	0	6
327999	All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	0	3	2	0	0	0	0	0	0	0	5
331110	Iron and Steel Mills and Ferroalloy Manufacturing	0	3	6	0	0	0	0	0	1	0	10
331210	Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	1	0	0	0	0	0	0	0	0	6	7
331221	Rolled Steel Shape Manufacturing	0	0	0	0	0	0	0	0	0	1	1
331222	Steel Wire Drawing	0	0	0	0	0	0	0	0	0	1	1
331315	Aluminum Sheet, Plate, and Foil Manufacturing	0	2	0	0	0	0	0	0	0	0	2
331318	Other Aluminum Rolling, Drawing, and Extruding	0	5	0	0	1	0	0	0	0	0	6

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	0	8	0	0	2	0	0	0	0	0	10
331492	Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	4	12	0	0	11	0	4	5	0	0	36
331511	Iron Foundries	0	1	0	0	0	0	0	0	0	0	1
331512	Steel Investment Foundries	0	0	0	0	0	0	1	0	0	0	1
331523	Nonferrous Metal Die-Casting Foundries	0	5	0	0	0	0	0	0	0	4	9
331524	Aluminum Foundries (except Die-Casting)	0	9	0	0	3	0	0	0	0	0	12
331529	Other Nonferrous Metal Foundries (except Die-Casting)	0	2	0	0	0	0	0	0	0	5	7
332111	Iron and Steel Forging	0	1	0	0	0	0	0	0	0	0	1
332112	Nonferrous Forging	2	11	0	0	3	0	0	2	0	0	18
332119	Metal Crown, Closure, and Other Metal Stamping (except Automotive)	0	1	0	0	0	0	0	0	0	0	1
332182	#N/A	0	0	9	0	0	0	0	0	0	0	9

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
332216	Saw Blade and Handtool Manufacturing	0	0	0	0	0	0	0	1	0	0	1
332311	Prefabricated Metal Building and Component Manufacturing	0	2	0	0	0	0	0	1	0	0	3
332312	Fabricated Structural Metal Manufacturing	2	2	0	0	4	0	0	2	0	0	10
332313	Plate Work Manufacturing	0	4	0	0	0	0	0	0	0	2	6
332321	Metal Window and Door Manufacturing	0	2	0	0	0	0	0	0	0	0	2
332322	Sheet Metal Work Manufacturing	1	17	0	1	0	0	1	1	1	10	32
332323	Ornamental and Architectural Metal Work Manufacturing	0	1	0	1	0	0	0	0	0	2	4
332431	Metal Can Manufacturing	0	2	0	0	0	0	0	0	2	0	4
332439	Other Metal Container Manufacturing	0	7	0	0	0	0	1	0	0	0	8
332510	Hardware Manufacturing	2	4	3	0	0	0	0	0	1	1	11
332613	Spring Manufacturing	0	3	0	0	0	0	0	0	0	0	3
332618	Other Fabricated Wire Product Manufacturing	0	5	0	0	1	0	0	0	0	0	6

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
332710	Machine Shops	29	0	1	0	1	0	0	0	1	2	34
332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	8	21	15	0	6	0	0	0	0	0	50
332811	Metal Heat Treating	0	2	0	0	0	0	0	1	1	0	4
332812	Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	9	50	0	0	7	0	0	6	3	15	90
332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	31	66	13	0	23	0	0	0	7	17	157
332911	Industrial Valve Manufacturing	0	0	0	0	0	0	0	0	0	1	1
332912	Fluid Power Valve and Hose Fitting Manufacturing	0	4	0	0	0	0	0	0	0	0	4
332919	Other Metal Valve and Pipe Fitting Manufacturing	0	5	0	0	0	0	0	0	0	1	6
332994	Small Arms, Ordnance, and Ordnance Accessories Manufacturing	1	0	0	0	0	0	0	0	0	0	1
332996	Fabricated Pipe and Pipe Fitting Manufacturing	0	1	0	0	0	0	0	0	0	0	1

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
332999	All Other Miscellaneous Fabricated Metal Product Manufacturing	2	6	0	0	0	0	0	2	0	0	10
333111	Farm Machinery and Equipment Manufacturing	0	1	0	0	0	0	0	0	0	0	1
333120	Construction Machinery Manufacturing	0	1	0	0	0	0	0	0	0	0	1
333132	Oil and Gas Field Machinery and Equipment Manufacturing	1	1	0	0	1	0	0	0	0	0	3
333241	Food Product Machinery Manufacturing	0	2	0	0	0	0	0	0	0	0	2
333314	Optical Instrument and Lens Manufacturing	1	0	0	0	0	0	0	0	0	0	1
333316	Photographic and Photocopying Equipment Manufacturing	0	0	0	0	1	0	0	0	0	1	2
333318	Other Commercial and Service Industry Machinery Manufacturing	0	2	0	0	0	0	0	0	1	0	3
333413	Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing	0	1	0	0	0	0	0	0	0	0	1
333415	Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment	0	1	0	0	0	0	0	0	1	1	3

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
	Manufacturing											
333511	Industrial Mold Manufacturing	0	0	0	0	0	0	0	0	0	6	6
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	2	5	0	1	0	0	0	0	0	3	11
333517	Machine Tool Manufacturing	0	1	0	0	0	0	0	0	0	1	2
333519	Rolling Mill and Other Metalworking Machinery Manufacturing	0	0	0	0	0	0	0	1	0	0	1
333612	Speed Changer, Industrial High-Speed Drive, and Gear Manufacturing	0	1	0	0	0	0	0	0	0	0	1
333911	Pump and Pumping Equipment Manufacturing	0	1	0	0	2	0	0	0	0	0	3
333921	Elevator and Moving Stairway Manufacturing	0	3	0	0	0	0	0	0	0	0	3
333922	Conveyor and Conveying Equipment Manufacturing	2	0	0	1	0	0	0	0	0	0	3
333924	Industrial Truck, Tractor, Trailer, and Stacker Machinery Manufacturing	0	3	0	0	0	0	0	0	0	0	3

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
333991	Power-Driven Handtool Manufacturing	0	2	0	0	0	0	0	0	0	0	2
333999	All Other Miscellaneous General Purpose Machinery Manufacturing	0	0	0	0	0	0	0	0	1	0	1
334111	Electronic Computer Manufacturing	0	0	0	0	0	0	0	0	5	0	5
334112	Computer Storage Device Manufacturing	0	0	0	0	0	0	0	0	1	0	1
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing	0	1	0	0	0	0	0	0	4	0	5
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	1	9	0	0	1	0	0	2	8	0	21
334310	Audio and Video Equipment Manufacturing	0	0	0	0	0	0	0	0	0	1	1
334412	Bare Printed Circuit Board Manufacturing	0	0	0	0	0	0	0	0	0	1	1
334413	Semiconductor and Related Device Manufacturing	0	26	1	0	5	0	0	0	0	0	32
334416	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing	0	2	0	0	2	0	0	0	2	0	6

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing	1	8	16	0	0	0	0	1	0	5	31
334419	Other Electronic Component Manufacturing	0	9	1	0	1	0	1	2	4	0	18
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing	0	1	0	0	3	0	0	0	2	0	6
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	1	8	0	0	4	0	0	3	2	0	18
334514	Totalizing Fluid Meter and Counting Device Manufacturing	0	1	0	0	0	0	0	0	0	0	1
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals	0	0	0	0	0	0	0	0	2	0	2
334516	Analytical Laboratory Instrument Manufacturing	0	2	0	0	0	0	0	0	4	0	6
334613	Blank Magnetic and Optical Recording Media Manufacturing	0	14	0	0	0	0	0	0	0	0	14

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
334614	Software and Other Prerecorded Compact Disc, Tape, and Record Reproducing	0	14	0	0	7	0	0	0	0	1	22
335110	Electric Lamp Bulb and Part Manufacturing	1	1	0	0	0	0	0	1	0	0	3
335121	Residential Electric Lighting Fixture Manufacturing	0	2	0	0	1	0	0	0	0	0	3
335122	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing	3	4	0	0	1	0	0	0	0	0	8
335129	Other Lighting Equipment Manufacturing	0	5	0	0	1	0	0	0	0	0	6
335221	Household Cooking Appliance Manufacturing	0	7	0	0	0	0	0	0	0	0	7
335311	Power, Distribution, and Specialty Transformer Manufacturing	0	2	0	0	0	0	0	0	0	0	2
335312	Motor and Generator Manufacturing	0	0	0	0	0	1	0	1	0	0	2
335313	Switchgear and Switchboard Apparatus Manufacturing	0	1	0	0	0	0	0	0	0	0	1
335314	Relay and Industrial Control Manufacturing	0	0	0	0	15	0	0	5	0	0	20

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
335911	Storage Battery Manufacturing	0	2	2	0	0	0	0	0	0	0	4
335931	Current-Carrying Wiring Device Manufacturing	0	5	0	0	1	0	0	0	0	0	6
335932	Noncurrent-Carrying Wiring Device Manufacturing	0	2	0	0	0	0	0	1	0	0	3
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing	0	7	0	0	0	0	0	0	1	2	10
336111	Automobile Manufacturing	0	1	0	0	0	0	0	0	0	1	2
336120	Heavy Duty Truck Manufacturing	0	1	0	1	0	0	0	0	0	0	2
336211	Motor Vehicle Body Manufacturing	0	1	0	0	0	0	0	0	0	0	1
336214	Travel Trailer and Camper Manufacturing	0	3	0	0	1	0	1	2	0	0	7
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	0	0	0	0	0	0	0	0	0	1	1
336360	Motor Vehicle Seating and Interior Trim Manufacturing	0	1	0	0	0	0	0	0	0	0	1
336390	Other Motor Vehicle Parts Manufacturing	1	7	0	0	0	0	1	0	0	2	11
336411	Aircraft Manufacturing	5	30	0	0	12	0	0	5	2	0	54

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
336412	Aircraft Engine and Engine Parts Manufacturing	4	2	0	0	1	0	0	0	1	0	8
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	16	22	22	1	5	0	0	8	5	0	79
336414	Guided Missile and Space Vehicle Manufacturing	0	4	0	0	4	0	0	0	1	0	9
336419	Other Guided Missile and Space Vehicle Parts and Auxiliary Equipment Manufacturing	0	29	0	0	0	0	0	2	0	0	31
336611	Ship Building and Repairing	0	1	0	0	0	0	0	0	0	0	1
336612	Boat Building	0	0	0	0	0	0	0	0	0	2	2
336991	Motorcycle, Bicycle, and Parts Manufacturing	0	8	0	0	0	0	0	0	0	0	8
337110	Wood Kitchen Cabinet and Countertop Manufacturing	0	5	0	0	0	0	0	0	0	2	7
337121	Upholstered Household Furniture Manufacturing	0	2	0	0	0	0	0	0	0	6	8
337122	Nonupholstered Wood Household Furniture Manufacturing	0	4	0	0	1	0	0	2	0	0	7
337124	Metal Household Furniture Manufacturing	0	5	0	0	0	0	0	1	0	1	7

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
337125	Household Furniture (except Wood and Metal) Manufacturing	0	2	0	0	0	0	0	0	0	0	2
337127	Institutional Furniture Manufacturing	0	4	0	0	0	0	0	0	0	0	4
337211	Wood Office Furniture Manufacturing	0	2	0	0	0	0	0	0	0	4	6
337212	Custom Architectural Woodwork and Millwork Manufacturing	0	1	0	0	0	0	0	0	0	1	2
337214	Office Furniture (except Wood) Manufacturing	0	4	0	0	0	0	0	3	0	0	7
337215	Showcase, Partition, Shelving, and Locker Manufacturing	1	2	0	0	0	0	0	0	0	1	4
337910	Mattress Manufacturing	0	0	1	0	1	0	0	0	2	7	11
339112	Surgical and Medical Instrument Manufacturing	0	0	2	0	0	0	0	1	9	0	12
339113	Surgical Appliance and Supplies Manufacturing	0	0	0	0	0	0	0	1	0	0	1
339114	Dental Equipment and Supplies Manufacturing	3	10	0	0	0	0	0	0	0	0	13
339115	Ophthalmic Goods Manufacturing	4	9	0	0	4	0	0	0	0	0	17
339116	Dental Laboratories	0	0	0	0	0	0	0	0	1	0	1
339910	Jewelry and Silverware Manufacturing	0	1	0	0	0	0	0	0	0	7	8

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
339920	Sporting and Athletic Goods Manufacturing	0	0	0	0	0	0	0	0	0	1	1
339930	Doll, Toy, and Game Manufacturing	0	3	0	0	0	0	0	0	0	0	3
339940	Office Supplies (except Paper) Manufacturing	0	0	0	0	0	0	0	0	4	0	4
339950	Sign Manufacturing	0	10	0	0	0	0	0	0	0	2	12
339991	Gasket, Packing, and Sealing Device Manufacturing	0	2	0	0	0	0	0	0	0	2	4
339992	Musical Instrument Manufacturing	0	2	0	0	0	0	0	0	1	0	3
339999	All Other Miscellaneous Manufacturing	0	9	0	0	0	0	0	1	4	12	26
423110	Automobile and Other Motor Vehicle Merchant Wholesalers	0	5	0	0	0	0	2	0	0	2	9
423120	Motor Vehicle Supplies and New Parts Merchant Wholesalers	5	11	2	0	2	0	1	0	0	10	31
423130	Tire and Tube Merchant Wholesalers	0	1	0	0	0	0	0	0	0	1	2
423140	Motor Vehicle Parts (Used) Merchant Wholesalers	0	0	0	0	1	0	0	0	0	0	1
423210	Furniture Merchant Wholesalers	0	2	0	0	0	0	0	0	0	0	2

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
423220	Home Furnishing Merchant Wholesalers	0	2	0	0	0	0	0	0	0	0	2
423310	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	0	0	0	0	0	0	0	1	0	0	1
423320	Brick, Stone, and Related Construction Material Merchant Wholesalers	4	14	0	0	0	0	0	1	0	0	19
423410	Photographic Equipment and Supplies Merchant Wholesalers	0	2	0	0	0	0	0	0	0	0	2
423420	Office Equipment Merchant Wholesalers	0	1	0	0	0	0	0	0	0	0	1
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	0	5	0	0	4	0	0	0	0	0	9
423440	Other Commercial Equipment Merchant Wholesalers	0	0	0	0	0	0	0	0	0	1	1
423450	Medical, Dental, and Hospital Equipment and Supplies Merchant Wholesalers	0	3	0	0	0	0	0	0	2	3	8
423510	Metal Service Centers and Other Metal Merchant Wholesalers	0	4	0	0	0	0	0	0	0	0	4

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
423610	Electrical Apparatus and Equipment, Wiring Supplies, and Related Equipment Merchant Wholesalers	0	3	0	0	1	0	0	0	2	0	6
423690	Other Electronic Parts and Equipment Merchant Wholesalers	0	1	0	0	0	0	0	0	1	0	2
423720	Plumbing and Heating Equipment and Supplies (Hydronics) Merchant Wholesalers	0	2	0	1	1	0	0	0	0	0	4
423810	Construction and Mining (except Oil Well) Machinery and Equipment Merchant Wholesalers	0	3	0	0	3	0	0	0	0	0	6
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	0	3	0	1	2	0	0	0	0	0	6
423830	Industrial Machinery and Equipment Merchant Wholesalers	0	9	0	0	4	0	0	1	10	1	25
423840	Industrial Supplies Merchant Wholesalers	3	23	0	1	3	0	0	0	1	1	32
423850	Service Establishment Equipment and Supplies Merchant Wholesalers	0	1	0	0	0	0	0	0	0	2	3

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	0	2	0	0	0	0	0	0	0	0	2
423910	Sporting and Recreational Goods and Supplies Merchant Wholesalers	0	3	0	0	0	0	0	0	0	0	3
423920	Toy and Hobby Goods and Supplies Merchant Wholesalers	7	4	0	0	0	0	0	1	1	0	13
423930	Recyclable Material Merchant Wholesalers	2	13	0	2	1	0	0	0	4	13	35
423940	Jewelry, Watch, Precious Stone, and Precious Metal Merchant Wholesalers	0	1	0	0	0	0	0	0	0	0	1
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	0	6	0	0	2	0	0	0	1	0	9
424130	Industrial and Personal Service Paper Merchant Wholesalers	0	6	0	0	0	0	0	0	0	0	6
424210	Drugs and Druggists' Sundries Merchant Wholesalers	2	2	0	0	1	0	0	0	0	0	5
424320	Men's and Boys' Clothing and Furnishings Merchant Wholesalers	0	1	0	0	0	0	0	0	2	0	3
424340	Footwear Merchant Wholesalers	0	0	0	0	0	0	0	0	0	1	1

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
424410	General Line Grocery Merchant Wholesalers	0	1	0	0	0	0	0	0	0	0	1
424420	Packaged Frozen Food Merchant Wholesalers	1	9	12	0	0	0	0	0	1	0	23
424450	Confectionery Merchant Wholesalers	0	0	0	0	0	0	0	0	1	0	1
424460	Fish and Seafood Merchant Wholesalers	0	0	0	0	0	0	0	0	3	0	3
424470	Meat and Meat Product Merchant Wholesalers	0	0	0	0	0	0	0	0	1	0	1
424490	Other Grocery and Related Products Merchant Wholesalers	0	3	0	0	2	0	0	0	1	0	6
424590	Other Farm Product Raw Material Merchant Wholesalers	0	0	0	0	0	0	0	0	0	2	2
424690	Other Chemical and Allied Products Merchant Wholesalers	0	13	0	0	2	0	0	0	0	0	15
424710	Petroleum Bulk Stations and Terminals	0	6	74	0	3	0	8	6	0	0	97
424720	Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals)	1	13	1	1	13	0	0	2	3	0	34

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
424820	Wine and Distilled Alcoholic Beverage Merchant Wholesalers	0	0	0	0	0	0	0	0	3	0	3
424910	Farm Supplies Merchant Wholesalers	0	12	0	0	0	0	0	0	0	0	12
424950	Paint, Varnish, and Supplies Merchant Wholesalers	1	11	1	0	0	0	0	0	0	1	14
424990	Other Miscellaneous Nondurable Goods Merchant Wholesalers	0	3	0	0	0	0	1	0	0	2	6
441110	New Car Dealers	5	27	3	0	5	0	0	0	3	4	47
441120	Used Car Dealers	1	6	0	0	0	0	0	0	0	0	7
441222	Boat Dealers	0	1	0	0	0	0	0	0	0	0	1
441228	Motorcycle, ATV, and All Other Motor Vehicle Dealers	1	1	1	0	1	0	1	0	0	1	6
441310	Automotive Parts and Accessories Stores	0	8	0	1	0	0	0	0	0	2	11
442110	Furniture Stores	0	3	0	0	1	0	0	0	0	1	5
442210	Floor Covering Stores	3	0	0	0	0	0	0	2	0	0	5
442299	All Other Home Furnishings Stores	0	2	0	0	0	0	0	0	0	0	2
443141	Household Appliance Stores	0	0	0	0	0	0	0	0	1	0	1
443142	Electronics Stores	0	0	0	0	0	0	0	0	3	0	3

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
444110	Home Centers	0	7	0	0	8	0	0	1	5	2	23
444120	Paint and Wallpaper Stores	0	3	0	0	0	0	0	0	0	1	4
444130	Hardware Stores	0	1	0	0	0	0	0	0	0	0	1
444190	Other Building Material Dealers	0	4	0	0	0	0	0	0	0	6	10
444220	Nursery, Garden Center, and Farm Supply Stores	0	0	0	0	0	0	0	0	0	2	2
445110	Supermarkets and Other Grocery (except Convenience) Stores	0	18	0	2	1	1	0	1	251	12	286
445120	Convenience Stores	4	52	0	0	2	0	1	0	0	3	62
445291	Baked Goods Stores	0	0	0	0	0	0	0	0	0	1	1
445299	All Other Specialty Food Stores	0	1	0	0	0	0	0	0	0	2	3
445310	Beer, Wine, and Liquor Stores	0	1	0	0	0	0	0	0	0	1	2
446110	Pharmacies and Drug Stores	0	2	0	0	1	0	0	0	13	0	16
446120	Cosmetics, Beauty Supplies, and Perfume Stores	0	5	0	0	0	0	0	0	0	0	5
446130	Optical Goods Stores	0	1	0	0	0	0	0	0	0	0	1
446199	All Other Health and Personal Care Stores	0	0	1	0	0	0	0	0	0	0	1
447100	Gasoline Stations	1	0	0	0	0	0	0	0	0	0	1

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
447110	Gasoline Stations with Convenience Stores	0	1	0	0	0	0	0	0	0	0	1
447190	Other Gasoline Stations	42	209	126	0	8	0	2	10	4	14	415
448110	Men's Clothing Stores	0	0	0	0	0	0	0	0	2	0	2
448120	Women's Clothing Stores	0	0	0	0	2	0	0	1	1	0	4
448140	Family Clothing Stores	0	0	0	0	0	0	0	0	1	1	2
448310	Jewelry Stores	0	0	0	0	0	0	1	0	0	0	1
451110	Sporting Goods Stores	0	0	0	0	0	0	0	0	0	1	1
451130	Sewing, Needlework, and Piece Goods Stores	0	0	3	0	1	0	0	0	1	0	5
451211	Book Stores	0	2	0	0	0	0	1	0	17	0	20
452111	Department Stores (except Discount Department Stores)	0	3	0	0	0	0	0	0	2	2	7
452112	Discount Department Stores	0	2	0	0	0	0	0	0	0	0	2
452910	Warehouse Clubs and Supercenters	1	33	0	0	3	108	0	0	0	0	145
452990	All Other General Merchandise Stores	0	2	0	0	0	0	0	0	0	0	2
453110	Florists	0	0	0	0	0	0	0	0	3	0	3
453210	Office Supplies and Stationery Stores	0	1	0	0	0	0	0	0	0	0	1
453220	Gift, Novelty, and Souvenir Stores	0	7	2	0	0	0	0	2	3	0	14
453310	Used Merchandise Stores	2	2	0	0	0	0	0	0	1	0	5

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
453910	Pet and Pet Supplies Stores	1	0	0	0	0	0	0	0	0	0	1
453920	Art Dealers	0	0	0	0	0	0	0	0	1	1	2
453930	Manufactured (Mobile) Home Dealers	0	7	0	0	0	0	1	2	0	0	10
453998	All Other Miscellaneous Store Retailers (except Tobacco Stores)	0	14	0	0	2	0	0	1	7	0	24
454113	Mail-Order Houses	0	1	0	0	0	0	1	0	3	0	5
454210	Vending Machine Operators	0	3	0	0	0	0	0	1	0	0	4
454310	Fuel Dealers	0	4	0	0	1	0	0	0	0	3	8
454390	Other Direct Selling Establishments	0	2	0	0	0	0	0	0	1	0	3
481111	Scheduled Passenger Air Transportation	0	14	1	0	1	1	1	3	1	0	22
481219	Other Nonscheduled Air Transportation	0	0	0	1	0	0	0	0	0	0	1
482111	Line-Haul Railroads	0	4	0	0	0	0	0	0	0	0	4
483112	Deep Sea Passenger Transportation	0	0	0	0	0	0	0	0	0	2	2
484110	General Freight Trucking, Local	0	1	0	0	0	0	1	2	2	3	9
484121	General Freight Trucking, Long-Distance, Truckload	0	2	0	0	0	0	0	0	1	0	3
484230	Specialized Freight (except Used Goods) Trucking, Long-Distance	0	4	0	0	0	0	0	0	0	0	4

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
485111	Mixed Mode Transit Systems	0	3	0	0	0	0	0	0	0	0	3
485112	Commuter Rail Systems	0	1	0	0	0	0	0	0	0	0	1
485113	Bus and Other Motor Vehicle Transit Systems	0	6	0	0	1	0	0	1	1	0	9
485310	Taxi Service	0	0	0	0	0	0	0	0	1	0	1
485320	Limousine Service	0	0	0	0	0	0	0	0	1	0	1
485410	School and Employee Bus Transportation	0	0	0	0	0	0	0	0	1	0	1
485999	All Other Transit and Ground Passenger Transportation	0	0	0	0	0	0	0	0	0	1	1
486110	Pipeline Transportation of Crude Oil	0	1	5	0	0	0	1	3	0	0	10
486210	Pipeline Transportation of Natural Gas	0	45	0	0	0	1	0	4	0	0	50
488110	Airport Operations	0	14	0	0	1	0	0	5	0	0	20
488111	Air Traffic Control	0	0	0	0	0	0	0	0	0	1	1
488119	Other Airport Operations	0	4	0	1	0	0	0	1	5	0	11
488190	Other Support Activities for Air Transportation	0	1	0	0	0	0	0	0	0	0	1
488210	Support Activities for Rail Transportation	0	12	0	0	5	0	1	1	0	0	19
488320	Marine Cargo Handling	0	2	0	0	0	0	1	0	0	0	3

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
488410	Motor Vehicle Towing	0	1	0	0	1	0	0	0	0	0	2
488490	Other Support Activities for Road Transportation	0	1	0	0	0	0	0	0	2	0	3
488510	Freight Transportation Arrangement	0	1	1	1	0	0	1	0	0	0	4
488991	Packing and Crating	0	1	0	0	0	0	0	0	0	1	2
488999	All Other Support Activities for Transportation	1	6	0	0	2	0	1	1	2	0	13
491110	Postal Service	0	0	0	0	0	0	0	0	4	1	5
492210	Local Messengers and Local Delivery	0	1	0	0	0	0	0	0	0	0	1
493110	General Warehousing and Storage	7	8	0	8	2	0	0	1	8	0	34
493120	Refrigerated Warehousing and Storage	0	1	0	0	0	0	0	0	0	0	1
493190	Other Warehousing and Storage	0	12	0	0	2	0	2	5	0	0	21
511110	Newspaper Publishers	0	0	0	0	0	0	0	0	1	0	1
511120	Periodical Publishers	0	0	0	0	0	0	0	0	1	0	1
511199	All Other Publishers	0	1	0	0	3	0	0	0	0	6	10
512110	Motion Picture and Video Production	0	9	0	0	0	0	1	1	12	1	24
512131	Motion Picture Theaters (except Drive-Ins)	0	2	0	0	0	0	0	0	0	0	2

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
512132	Drive-In Motion Picture Theaters	0	0	0	0	0	0	0	0	1	0	1
512191	Teleproduction and Other Postproduction Services	0	9	0	0	0	0	0	0	0	0	9
512199	Other Motion Picture and Video Industries	0	1	0	0	0	0	0	0	0	1	2
512240	Sound Recording Studios	0	0	0	0	0	0	0	0	1	0	1
515120	Television Broadcasting	0	7	0	1	0	0	1	0	1	2	12
515210	Cable and Other Subscription Programming	0	1	0	0	0	0	1	0	4	2	8
517110	Wired Telecommunications Carriers	0	1	0	0	0	0	0	0	0	0	1
517210	Wireless Telecommunications Carriers (except Satellite)	0	19	188	0	2	0	0	0	16	1	226
517410	Satellite Telecommunications	0	0	0	0	0	0	0	0	0	2	2
517911	Telecommunications Resellers	0	5	0	0	7	0	1	0	54	0	67
517919	All Other Telecommunications	0	1	0	1	1	0	0	0	1	1	5
518210	Data Processing, Hosting, and Related Services	0	2	0	0	0	0	0	0	0	0	2
519120	Libraries and Archives	0	0	0	2	0	0	1	0	14	0	17
522110	Commercial Banking	0	5	1	0	1	0	0	0	6	0	13

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
522120	Savings Institutions	0	0	0	0	0	0	0	0	0	2	2
522130	Credit Unions	0	2	0	0	0	0	1	0	5	0	8
522220	Sales Financing	0	0	0	0	0	0	0	0	2	0	2
522291	Consumer Lending	0	1	0	0	0	0	0	0	0	0	1
522292	Real Estate Credit	0	1	0	0	0	0	0	0	0	0	1
522320	Financial Transactions Processing, Reserve, and Clearinghouse Activities	0	3	0	0	0	0	0	1	1	0	5
523110	Investment Banking and Securities Dealing	0	0	0	1	0	0	0	0	1	0	2
523120	Securities Brokerage	0	0	0	0	0	0	0	0	0	1	1
523910	Miscellaneous Intermediation	2	4	0	0	0	0	0	0	3	1	10
523930	Investment Advice	0	2	1	0	0	0	0	0	1	0	4
523991	Trust, Fiduciary, and Custody Activities	0	0	0	0	1	0	0	0	2	1	4
523999	Miscellaneous Financial Investment Activities	0	1	0	0	0	0	0	0	0	0	1
524113	Direct Life Insurance Carriers	0	1	0	0	0	0	0	0	0	0	1
524114	Direct Health and Medical Insurance Carriers	0	2	0	0	0	0	0	0	1	2	5
524126	Direct Property and Casualty Insurance Carriers	0	0	0	0	0	0	0	0	2	0	2

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
524210	Insurance Agencies and Brokerages	0	2	0	0	0	0	0	0	4	5	11
524298	All Other Insurance Related Activities	0	0	0	0	0	0	0	0	17	0	17
525110	Pension Funds	0	1	0	0	0	0	0	0	0	0	1
531110	Lessors of Residential Buildings and Dwellings	0	37	9	0	1	0	1	1	27	2	78
531120	Lessors of Nonresidential Buildings (except Miniwarehouses)	0	2	3	0	1	0	3	0	18	0	27
531190	Lessors of Other Real Estate Property	0	0	1	0	0	0	0	0	3	1	5
531210	Offices of Real Estate Agents and Brokers	0	24	4	0	0	0	1	0	31	7	67
531311	Residential Property Managers	0	1	0	0	0	0	0	0	0	0	1
531312	Nonresidential Property Managers	2	7	14	0	0	0	1	0	8	2	34
531390	Other Activities Related to Real Estate	0	2	0	0	0	0	0	0	0	0	2
532111	Passenger Car Rental	0	2	0	0	0	0	0	0	1	0	3
532112	Passenger Car Leasing	0	0	0	0	0	0	0	0	1	0	1
532120	Truck, Utility Trailer, and RV (Recreational Vehicle) Rental and Leasing	0	0	0	0	0	0	0	0	1	0	1
532220	Formal Wear and Costume Rental	0	2	0	0	0	0	0	0	0	1	3

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
532299	All Other Consumer Goods Rental	0	0	0	0	0	0	0	0	0	1	1
532412	Construction, Mining, and Forestry Machinery and Equipment Rental and Leasing	0	6	0	0	0	0	0	0	0	1	7
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	0	13	0	0	2	0	0	0	44	4	63
533110	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	0	2	0	1	0	0	0	0	0	0	3
541110	Offices of Lawyers	0	1	0	0	0	0	0	0	5	0	6
541213	Tax Preparation Services	0	0	0	0	0	0	0	0	1	0	1
541310	Architectural Services	0	4	0	0	5	0	0	0	0	1	10
541320	Landscape Architectural Services	8	14	0	0	3	0	0	0	5	0	30
541330	Engineering Services	0	8	0	0	4	0	9	0	43	15	79
541380	Testing Laboratories	0	7	0	1	1	0	0	0	3	0	12
541410	Interior Design Services	0	3	0	0	0	0	0	1	0	0	4
541420	Industrial Design Services	0	0	0	0	0	0	0	0	1	0	1
541430	Graphic Design Services	0	1	0	0	2	0	0	0	0	0	3

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
541511	Custom Computer Programming Services	0	1	0	0	0	0	0	0	0	1	2
541512	Computer Systems Design Services	1	1	0	0	0	0	0	0	1	2	5
541519	Other Computer Related Services	0	0	0	0	0	0	1	0	0	0	1
541611	Administrative Management and General Management Consulting Services	0	11	1	1	2	0	1	0	19	3	38
541612	Human Resources Consulting Services	0	0	0	0	0	0	0	0	1	0	1
541613	Marketing Consulting Services	0	0	0	0	0	3	0	0	0	1	4
541614	Process, Physical Distribution, and Logistics Consulting Services	0	1	0	0	0	0	0	0	0	0	1
541618	Other Management Consulting Services	0	7	0	0	0	0	0	0	1	2	10
541620	Environmental Consulting Services	0	9	1	0	3	0	17	0	23	34	87
541690	Other Scientific and Technical Consulting Services	0	0	2	1	1	0	1	0	3	0	8
541711	Research and Development in Biotechnology	0	4	0	0	0	0	0	0	2	0	6

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
541712	Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)	1	25	0	0	0	0	2	0	5	1	34
541720	Research and Development in the Social Sciences and Humanities	0	0	0	0	0	0	0	0	2	0	2
541810	Advertising Agencies	0	1	0	0	0	0	0	0	2	0	3
541830	Media Buying Agencies	0	0	0	0	0	0	0	0	1	0	1
541850	Outdoor Advertising	1	1	0	0	0	0	0	0	0	0	2
541860	Direct Mail Advertising	0	1	0	0	0	0	0	0	0	0	1
541890	Other Services Related to Advertising	0	2	0	0	0	0	0	0	0	0	2
541910	Marketing Research and Public Opinion Polling	1	2	0	0	0	0	0	0	2	0	5
541921	Photography Studios, Portrait	0	0	0	0	0	0	0	0	1	0	1
541940	Veterinary Services	0	2	1	0	0	0	0	0	0	0	3
541990	All Other Professional, Scientific, and Technical Services	2	8	0	0	2	0	1	0	8	65	86
551112	Offices of Other Holding Companies	0	6	0	0	0	0	0	1	16	0	23

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
561110	Office Administrative Services	8	10	1	0	1	0	1	1	13	1	36
561210	Facilities Support Services	0	0	1	0	0	0	3	0	0	0	4
561410	Document Preparation Services	0	0	0	0	0	0	0	0	0	1	1
561421	Telephone Answering Services	0	0	0	0	0	0	1	0	0	0	1
561431	Private Mail Centers	0	0	0	0	0	0	0	0	1	0	1
561440	Collection Agencies	0	1	0	2	0	0	0	0	0	0	3
561491	Repossession Services	0	0	0	0	0	0	0	0	0	3	3
561499	All Other Business Support Services	6	17	1	0	4	0	1	0	2	0	31
561510	Travel Agencies	0	1	1	0	0	0	0	0	0	0	2
561612	Security Guards and Patrol Services	0	1	0	0	0	0	0	0	0	0	1
561621	Security Systems Services (except Locksmiths)	0	0	0	0	0	0	0	0	1	0	1
561720	Janitorial Services	1	5	3	1	0	0	0	0	11	3	24
561730	Landscaping Services	0	3	0	0	1	0	0	0	0	3	7
561790	Other Services to Buildings and Dwellings	0	9	1	0	1	0	0	0	2	2	15
561910	Packaging and Labeling Services	2	8	0	0	0	0	0	0	0	0	10
561990	All Other Support Services	1	6	2	1	2	0	2	1	4	10	29

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
562112	Hazardous Waste Collection	0	4	0	0	0	0	2	0	0	0	6
562211	Hazardous Waste Treatment and Disposal	0	6	0	0	0	0	1	0	7	0	14
562212	Solid Waste Landfill	1	22	0	0	8	0	2	3	3	1	40
562219	Other Nonhazardous Waste Treatment and Disposal	0	1	0	0	3	0	0	0	0	0	4
562910	Remediation Services	0	9	0	0	3	0	2	0	57	148	219
562920	Materials Recovery Facilities	0	8	2	0	8	0	1	4	2	7	32
562998	All Other Miscellaneous Waste Management Services	0	2	0	0	0	0	0	0	0	0	2
611110	Elementary and Secondary Schools	0	25	2	4	2	0	0	0	72	9	114
611210	Junior Colleges	0	2	0	0	0	0	1	2	14	0	19
611310	Colleges, Universities, and Professional Schools	0	34	1	0	1	1	2	6	31	1	77
611519	Other Technical and Trade Schools	0	11	0	0	0	0	0	0	0	0	11
611620	Sports and Recreation Instruction	0	1	0	0	0	0	0	0	0	0	1
611699	All Other Miscellaneous Schools and Instruction	0	0	0	0	0	0	0	0	1	0	1
611710	Educational Support Services	6	0	0	0	0	0	0	0	0	0	6

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
621111	Offices of Physicians (except Mental Health Specialists)	0	8	0	0	8	0	1	0	16	1	34
621112	Offices of Physicians, Mental Health Specialists	0	5	0	0	0	0	1	1	6	0	13
621210	Offices of Dentists	0	0	0	0	0	0	0	0	1	1	2
621310	Offices of Chiropractors	0	0	0	0	0	0	0	0	1	0	1
621340	Offices of Physical, Occupational and Speech Therapists, and Audiologists	0	0	0	0	0	0	0	0	1	0	1
621399	Offices of All Other Miscellaneous Health Practitioners	0	0	0	0	0	0	0	0	1	0	1
621491	HMO Medical Centers	0	0	0	0	0	0	0	0	1	0	1
621492	Kidney Dialysis Centers	0	0	0	0	0	0	0	0	0	1	1
621493	Freestanding Ambulatory Surgical and Emergency Centers	0	1	0	0	0	0	0	0	0	0	1
621498	All Other Outpatient Care Centers	1	0	0	0	0	0	0	0	0	0	1
621610	Home Health Care Services	0	2	1	0	0	0	0	0	0	0	3
621991	Blood and Organ Banks	0	0	0	0	0	0	0	0	1	0	1
621999	All Other Miscellaneous Ambulatory Health Care Services	1	6	1	0	0	0	0	0	8	4	20
622110	General Medical and Surgical Hospitals	0	31	0	0	3	0	5	7	45	4	95

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
622210	Psychiatric and Substance Abuse Hospitals	0	6	0	0	4	0	0	0	1	0	11
622310	Specialty (except Psychiatric and Substance Abuse) Hospitals	0	2	0	0	0	0	0	0	2	0	4
623110	Nursing Care Facilities (Skilled Nursing Facilities)	0	10	0	0	1	0	0	0	3	0	14
623311	Continuing Care Retirement Communities	0	1	0	0	0	0	0	0	1	0	2
623312	Assisted Living Facilities for the Elderly	0	3	0	0	0	0	0	0	1	0	4
623990	Other Residential Care Facilities	0	5	0	2	0	0	0	0	0	0	7
624120	Services for the Elderly and Persons with Disabilities	0	3	0	0	0	0	0	0	5	2	10
624190	Other Individual and Family Services	0	2	0	0	0	0	0	0	5	0	7
624410	Child Day Care Services	0	0	0	1	0	0	0	0	0	0	1
711130	Musical Groups and Artists	0	4	0	0	0	0	0	0	1	0	5
711190	Other Performing Arts Companies	0	2	0	0	2	0	0	0	2	1	7
711211	Sports Teams and Clubs	0	0	0	0	0	0	0	0	4	0	4
711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities	0	2	1	0	0	0	0	0	7	0	10

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
711410	Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	0	0	0	0	0	0	0	0	5	0	5
711510	Independent Artists, Writers, and Performers	0	4	0	0	2	0	0	0	1	0	7
712110	Museums	0	1	0	0	1	0	0	0	3	1	6
712130	Zoos and Botanical Gardens	0	0	0	0	0	0	0	0	1	0	1
713110	Amusement and Theme Parks	5	17	0	0	0	0	0	5	3	0	30
713910	Golf Courses and Country Clubs	0	11	0	0	0	0	0	0	2	2	15
713940	Fitness and Recreational Sports Centers	1	8	0	0	2	0	1	2	12	0	26
713990	All Other Amusement and Recreation Industries	0	0	0	0	0	0	0	0	1	0	1
721110	Hotels (except Casino Hotels) and Motels	0	17	0	1	0	0	0	0	51	5	74
721120	Casino Hotels	0	0	0	0	0	0	0	0	2	0	2
721214	Recreational and Vacation Camps (except Campgrounds)	0	2	0	0	0	0	0	0	0	0	2
722310	Food Service Contractors	2	0	0	0	0	0	0	0	0	0	2
722320	Caterers	0	1	0	0	0	0	0	0	1	0	2
722410	Drinking Places (Alcoholic Beverages)	0	0	0	1	0	0	0	0	2	4	7

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
722511	Full-Service Restaurants	3	1	0	0	1	0	0	0	144	67	216
722513	Limited-Service Restaurants	3	5	0	0	0	0	2	0	20	50	80
722514	Cafeterias, Grill Buffets, and Buffets	0	0	0	0	0	0	0	0	1	0	1
722515	Snack and Nonalcoholic Beverage Bars	0	0	0	0	0	0	0	0	0	1	1
811111	General Automotive Repair	4	25	3	2	3	0	2	1	1	8	49
811112	Automotive Exhaust System Repair	0	0	1	0	0	0	0	0	0	0	1
811113	Automotive Transmission Repair	0	0	0	0	0	0	0	0	0	2	2
811118	Other Automotive Mechanical and Electrical Repair and Maintenance	0	9	0	0	10	0	0	1	0	2	22
811121	Automotive Body, Paint, and Interior Repair and Maintenance	65	156	107	0	9	0	0	3	0	53	393
811192	Car Washes	0	7	0	0	0	0	0	0	1	2	10
811198	All Other Automotive Repair and Maintenance	0	3	1	0	0	0	0	0	0	0	4
811219	Other Electronic and Precision Equipment Repair and Maintenance	0	7	0	0	4	0	2	0	1	1	15
811310	Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and	1	11	1	0	0	0	0	0	1	0	14

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
	Maintenance											
811412	Appliance Repair and Maintenance	0	6	1	0	0	0	0	0	2	0	9
811420	Reupholstery and Furniture Repair	0	4	0	0	0	0	0	0	0	7	11
811490	Other Personal and Household Goods Repair and Maintenance	0	5	0	0	0	0	0	0	0	0	5
812112	Beauty Salons	0	5	0	0	0	0	0	1	1	0	7
812113	Nail Salons	0	0	0	0	0	0	0	0	1	0	1
812210	Funeral Homes and Funeral Services	2	5	1	0	0	0	0	0	0	1	9
812220	Cemeteries and Crematories	6	5	0	0	0	0	0	0	6	0	17
812310	Coin-Operated Laundries and Drycleaners	0	1	0	0	0	0	0	0	0	2	3
812320	Drycleaning and Laundry Services (except Coin-Operated)	0	49	4	2	1	0	0	0	6	46	108
812331	Linen Supply	6	2	1	0	0	0	0	1	2	0	12
812332	Industrial Launderers	0	1	0	0	2	0	0	0	0	0	3
812910	Pet Care (except Veterinary) Services	0	0	0	0	0	0	0	0	2	1	3
812930	Parking Lots and Garages	0	1	0	0	1	0	0	0	0	0	2

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
812990	All Other Personal Services	0	1	0	0	0	0	0	0	0	0	1
813110	Religious Organizations	0	7	0	0	0	0	0	0	2	1	10
813212	Voluntary Health Organizations	0	1	0	0	0	0	0	0	1	0	2
813312	Environment, Conservation and Wildlife Organizations	0	0	0	0	0	0	0	0	1	0	1
813319	Other Social Advocacy Organizations	0	1	0	0	0	0	0	0	0	0	1
813410	Civic and Social Organizations	0	2	0	0	0	0	0	0	4	0	6
813910	Business Associations	0	18	0	0	21	0	0	2	2	0	43
813920	Professional Organizations	0	1	0	0	0	0	0	0	0	1	2
813930	Labor Unions and Similar Labor Organizations	0	4	0	0	1	0	0	2	0	0	7
813990	Other Similar Organizations (except Business, Professional, Labor, and Political Organizations)	0	4	0	3	2	0	0	0	16	0	25
921110	Executive Offices	0	30	0	2	2	0	0	1	14	1	50
921120	Legislative Bodies	2	11	0	0	0	0	0	0	3	1	17
921190	Other General Government Support	1	7	3	2	0	0	0	1	8	0	22
922110	Courts	0	7	0	0	3	0	2	0	9	1	22
922120	Police Protection	0	10	0	1	0	0	1	4	27	0	43

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NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
922130	Legal Counsel and Prosecution	0	1	0	0	0	0	0	0	0	0	1
922140	Correctional Institutions	0	2	0	0	1	0	0	0	8	0	11
922150	Parole Offices and Probation Offices	0	3	0	0	0	0	0	0	0	0	3
922160	Fire Protection	0	12	0	0	0	0	0	0	0	0	12
922190	Other Justice, Public Order, and Safety Activities	0	0	0	0	0	0	1	0	1	0	2
923120	Administration of Public Health Programs	0	2	0	0	0	0	1	0	1	0	4
923130	Administration of Human Resource Programs (except Education, Public Health, and Veterans' Affairs Programs)	0	0	0	0	1	0	0	0	3	0	4
923140	Administration of Veterans' Affairs	0	4	0	0	0	0	0	2	3	0	9
924110	Administration of Air and Water Resource and Solid Waste Management Programs	8	38	0	4	14	0	0	4	11	0	79
924120	Administration of Conservation Programs	1	7	0	0	0	0	0	0	0	0	8
925120	Administration of Urban Planning and Community and Rural Development	0	0	0	0	1	0	0	0	1	0	2

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Permit Applications Completed During Calendar Year 2016

NAICS Code	NAICS Code Description	Permit to Construct	Permit to Operate	Change of Operator	Denied	Cancelled	ERC	Plans	TV/ RECLAIM	Area Source/Cert. & Registration	Not Renewed	Grand Total
926120	Regulation and Administration of Transportation Programs	0	5	0	0	1	0	0	0	1	2	9
926130	Regulation and Administration of Communications, Electric, Gas, and Other Utilities	0	4	0	0	0	0	0	0	5	0	9
927110	Space Research and Technology	0	1	0	0	0	0	0	0	2	0	3
928110	National Security	0	1	0	0	0	0	0	0	0	0	1
999990	Unclassified	34	339	330	7	68	33	57	21	340	60	1289
0	TOTALS	595	3725	1511	77	784	185	270	398	2327	1200	11072

Emission Reduction Credit (ERC) and Short Term Emission Reduction Credit (STERC) Transactions for Fiscal Year 2015-16¹ (California Health and Safety Code Section 40452)

Pursuant to paragraph (c) of section 40452 of the California Health and Safety Code, this report summarizes data on emission offset transactions and applications, by pollutant, during the previous fiscal year. Note that during Fiscal Year 2015-16, no applications were denied for a permit for a new source for the reason of failure to provide the required emission offsets.

Table 1 summarizes Emission Reduction Credit (ERC) and Short Term Emission Reduction Credit (STERC) transactions for Fiscal Year 2015-16, including totals, by pollutant, of the number of emission offset transactions and the quantity of emission offsets transferred in units of pounds per day and tons per year. Table 2 summarizes ERC banking applications processed during Fiscal Year 2015-16, including the number of newly generated STERCs by pollutant in units of pounds per day and tons per year.

Tables 3 and 4 provide details on the amount of each emission offset transaction and processed ERC banking application respectively.

Table 1: Emission Offset Transactions – Fiscal Year 2015-16

Criteria Pollutant	Number of Emission Offset Transfer Transactions ²				Quantity of Emission Offsets Transferred ³ (lb/day)				Annualized Quantity of Emission Offsets Transferred ³ (ton/year)			
	ERC	STERC ⁴	STERC ⁵	TOTAL	ERC	STERC ⁴	STERC ⁵	TOTAL	ERC	STERC ⁴	STERC ⁵	TOTAL
ROG	49	21	0	70	1,177	309	0	1,486	214.9	56.4	0	271.3
NOX	2	0	0	2	106	0	0	106	19.4	0	0	19.4
SOX	2	0	0	2	46	0	0	46	8.4	0	0	8.4
CO	0	1	0	1	0	32	0	32	0	5.8	0	5.8
PM10	24	16	0	40	74	63	0	137	13.5	11.5	0	25.0

Table 2: Emission Offset Applications – Fiscal Year 2015-16

Criteria Pollutant	Number of Banking Applications Resulting in the Issuance of New STERCs ⁶	Quantity of Emission Reductions Achieved (STERCs) ⁷ (lb/day)	Annualized Quantity of Emission Reductions Achieved ⁷ (ton/year)
ROG	0	0	0
NOX	0	0	0
SOX	0	0	0
CO	0	0	0
PM10	0	0	0

¹ This report does not include RECLAIM Trading Credit (RTC) transactions.

² Includes all emission offset certificates that transferred ownership.

³ Includes the total amount of emission offsets transferred.

⁴ STERC transfer transactions including the long term emission offset, those that have an ending year of 9999.

⁵ STERC transfer transactions not including the long term emission offset in which the emission offset with the greatest year is treated like a long term emission offset.

⁶ Includes all emission offset applications resulting in the generation of new certificates.

⁷ Includes the total amount of emission offsets generated.

**Table 3: Emission Offset Transaction Summary – Fiscal Year 2015-16
Sorted by Pollutant and Amount**

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-001	ROG	1	0.2	ERC	N/A	N/A
SC1516-002	ROG	1	0.2	ERC	N/A	N/A
SC1516-003	ROG	1	0.2	ERC	N/A	N/A
SC1516-004	ROG	1	0.2	ERC	N/A	N/A
SC1516-005	ROG	1	0.2	ERC	N/A	N/A
SC1516-006	ROG	1	0.2	ERC	N/A	N/A
SC1516-007	ROG	1	0.2	ERC	N/A	N/A
SC1516-008	ROG	1	0.2	ERC	N/A	N/A
SC1516-009	ROG	1	0.2	ERC	N/A	N/A
SC1516-010	ROG	1	0.2	ERC	N/A	N/A
SC1516-011	ROG	1	0.2	ERC	N/A	N/A
SC1516-012	ROG	2	0.4	ERC	N/A	N/A
SC1516-013	ROG	0	0	STERC	2015	2015
SC1516-014	ROG	0	0	STERC	2016	2016
SC1516-015	ROG	0	0	STERC	2017	2017
SC1516-016	ROG	0	0	STERC	2018	2018
SC1516-017	ROG	2	0.4	STERC	2019	9999
SC1516-018	ROG	0	0	STERC	2015	2015
SC1516-019	ROG	0	0	STERC	2016	2016
SC1516-020	ROG	0	0	STERC	2017	2017
SC1516-021	ROG	0	0	STERC	2018	2018
SC1516-022	ROG	2	0.4	STERC	2019	9999
SC1516-023	ROG	2	0.4	ERC	N/A	N/A
SC1516-024	ROG	2	0.4	ERC	N/A	N/A
SC1516-025	ROG	2	0.4	ERC	N/A	N/A
SC1516-026	ROG	0	0	STERC	2015	2015
SC1516-027	ROG	0	0	STERC	2016	2016
SC1516-028	ROG	0	0	STERC	2017	2017
SC1516-029	ROG	0	0	STERC	2018	2018
SC1516-030	ROG	0	0	STERC	2019	2019
SC1516-031	ROG	0	0	STERC	2020	2020
SC1516-032	ROG	3	0.5	STERC	2021	9999
SC1516-033	ROG	0	0	STERC	2015	2015
SC1516-034	ROG	0	0	STERC	2016	2016
SC1516-035	ROG	0	0	STERC	2017	2017
SC1516-036	ROG	0	0	STERC	2018	2018
SC1516-037	ROG	0	0	STERC	2019	2019
SC1516-038	ROG	0	0	STERC	2020	2020
SC1516-039	ROG	3	0.5	STERC	2021	9999
SC1516-040	ROG	3	0.5	ERC	N/A	N/A
SC1516-041	ROG	3	0.5	ERC	N/A	N/A
SC1516-042	ROG	0	0	STERC	2015	2015
SC1516-043	ROG	0	0	STERC	2016	2016

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-044	ROG	0	0	STERC	2017	2017
SC1516-045	ROG	0	0	STERC	2018	2018
SC1516-046	ROG	4	0.7	STERC	2019	9999
SC1516-047	ROG	4	0.7	ERC	N/A	N/A
SC1516-048	ROG	4	0.7	ERC	N/A	N/A
SC1516-049	ROG	0	0	STERC	2015	2015
SC1516-050	ROG	0	0	STERC	2016	2016
SC1516-051	ROG	0	0	STERC	2017	2017
SC1516-052	ROG	0	0	STERC	2018	2018
SC1516-053	ROG	0	0	STERC	2019	2019
SC1516-054	ROG	0	0	STERC	2020	2020
SC1516-055	ROG	5	0.9	STERC	2021	9999
SC1516-056	ROG	0	0	STERC	2015	2015
SC1516-057	ROG	0	0	STERC	2016	2016
SC1516-058	ROG	0	0	STERC	2017	2017
SC1516-059	ROG	0	0	STERC	2018	2018
SC1516-060	ROG	0	0	STERC	2019	2019
SC1516-061	ROG	0	0	STERC	2020	2020
SC1516-062	ROG	5	0.9	STERC	2021	9999
SC1516-063	ROG	5	0.9	ERC	N/A	N/A
SC1516-064	ROG	5	0.9	ERC	N/A	N/A
SC1516-065	ROG	6	1.1	ERC	N/A	N/A
SC1516-066	ROG	6	1.1	ERC	N/A	N/A
SC1516-067	ROG	6	1.1	STERC	2017	9999
SC1516-068	ROG	0	0	STERC	2016	2016
SC1516-069	ROG	0	0	STERC	2015	2015
SC1516-070	ROG	6	1.1	ERC	N/A	N/A
SC1516-071	ROG	6	1.1	ERC	N/A	N/A
SC1516-072	ROG	6	1.1	ERC	N/A	N/A
SC1516-073	ROG	7	1.3	ERC	N/A	N/A
SC1516-074	ROG	7	1.3	ERC	N/A	N/A
SC1516-075	ROG	7	1.3	ERC	N/A	N/A
SC1516-076	ROG	8	1.5	ERC	N/A	N/A
SC1516-077	ROG	0	0	STERC	2015	2015
SC1516-078	ROG	0	0	STERC	2016	2016
SC1516-079	ROG	0	0	STERC	2017	2017
SC1516-080	ROG	0	0	STERC	2018	2018
SC1516-081	ROG	0	0	STERC	2019	2019
SC1516-082	ROG	0	0	STERC	2020	2020
SC1516-083	ROG	8	1.5	STERC	2021	9999
SC1516-084	ROG	0	0	STERC	2015	2015
SC1516-085	ROG	0	0	STERC	2016	2016
SC1516-086	ROG	0	0	STERC	2017	2017
SC1516-087	ROG	0	0	STERC	2018	2018

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-088	ROG	0	0	STERC	2019	2019
SC1516-089	ROG	0	0	STERC	2020	2020
SC1516-090	ROG	8	1.5	STERC	2021	9999
SC1516-091	ROG	9	1.6	ERC	N/A	N/A
SC1516-092	ROG	9	1.6	ERC	N/A	N/A
SC1516-093	ROG	10	1.8	ERC	N/A	N/A
SC1516-094	ROG	10	1.8	ERC	N/A	N/A
SC1516-095	ROG	0	0	STERC	2016	2016
SC1516-096	ROG	0	0	STERC	2017	2017
SC1516-097	ROG	0	0	STERC	2018	2018
SC1516-098	ROG	10	1.8	STERC	2019	9999
SC1516-099	ROG	10	1.8	ERC	N/A	N/A
SC1516-100	ROG	11	2	ERC	N/A	N/A
SC1516-101	ROG	11	2	ERC	N/A	N/A
SC1516-102	ROG	12	2.2	ERC	N/A	N/A
SC1516-103	ROG	0	0	STERC	2016	2016
SC1516-104	ROG	0	0	STERC	2017	2017
SC1516-105	ROG	0	0	STERC	2018	2018
SC1516-106	ROG	13	2.4	STERC	2019	9999
SC1516-107	ROG	14	2.6	ERC	N/A	N/A
SC1516-108	ROG	0	0	STERC	2016	2016
SC1516-109	ROG	0	0	STERC	2017	2017
SC1516-110	ROG	0	0	STERC	2018	2018
SC1516-111	ROG	15	2.7	STERC	2019	9999
SC1516-112	ROG	0	0	STERC	2016	2016
SC1516-113	ROG	0	0	STERC	2017	2017
SC1516-114	ROG	0	0	STERC	2018	2018
SC1516-115	ROG	15	2.7	STERC	2019	9999
SC1516-116	ROG	16	2.9	ERC	N/A	N/A
SC1516-117	ROG	0	0	STERC	2016	2016
SC1516-118	ROG	0	0	STERC	2017	2017
SC1516-119	ROG	0	0	STERC	2018	2018
SC1516-120	ROG	18	3.3	STERC	2019	9999
SC1516-121	ROG	0	0	STERC	2016	2016
SC1516-122	ROG	0	0	STERC	2017	2017
SC1516-123	ROG	0	0	STERC	2018	2018
SC1516-124	ROG	0	0	STERC	2019	2019
SC1516-125	ROG	0	0	STERC	2020	2020
SC1516-126	ROG	18	3.3	STERC	2021	9999
SC1516-127	ROG	0	0	STERC	2016	2016
SC1516-128	ROG	0	0	STERC	2017	2017
SC1516-129	ROG	0	0	STERC	2018	2018
SC1516-130	ROG	18	3.3	STERC	2019	9999
SC1516-131	ROG	0	0	STERC	2015	2015

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-132	ROG	0	0	STERC	2016	2016
SC1516-133	ROG	0	0	STERC	2017	2017
SC1516-134	ROG	0	0	STERC	2018	2018
SC1516-135	ROG	19	3.5	STERC	2019	9999
SC1516-136	ROG	19	3.5	ERC	N/A	N/A
SC1516-137	ROG	23	4.2	ERC	N/A	N/A
SC1516-138	ROG	25	4.6	ERC	N/A	N/A
SC1516-139	ROG	0	0	STERC	2016	2016
SC1516-140	ROG	0	0	STERC	2017	2017
SC1516-141	ROG	0	0	STERC	2018	2018
SC1516-142	ROG	0	0	STERC	2019	2019
SC1516-143	ROG	0	0	STERC	2020	2020
SC1516-144	ROG	35	6.4	STERC	2021	9999
SC1516-145	ROG	38	6.9	ERC	N/A	N/A
SC1516-146	ROG	44	8	ERC	N/A	N/A
SC1516-147	ROG	0	0	STERC	2015	2015
SC1516-148	ROG	0	0	STERC	2016	2016
SC1516-149	ROG	0	0	STERC	2017	2017
SC1516-150	ROG	0	0	STERC	2018	2018
SC1516-151	ROG	45	8.2	STERC	2019	9999
SC1516-152	ROG	50	9.1	ERC	N/A	N/A
SC1516-153	ROG	50	9.1	ERC	N/A	N/A
SC1516-154	ROG	0	0	STERC	2015	2015
SC1516-155	ROG	0	0	STERC	2016	2016
SC1516-156	ROG	0	0	STERC	2017	2017
SC1516-157	ROG	0	0	STERC	2018	2018
SC1516-158	ROG	0	0	STERC	2019	2019
SC1516-159	ROG	0	0	STERC	2020	2020
SC1516-160	ROG	57	10.4	STERC	2021	9999
SC1516-161	ROG	213	38.9	ERC	N/A	N/A
SC1516-162	ROG	501	91.4	ERC	N/A	N/A
Total		1,486	271.3		N/A	

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-163	NOX	1	0.2	ERC	N/A	N/A
SC1516-164	NOX	105	19.2	ERC	N/A	N/A
Total		106	19.4		N/A	

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-165	SOX	20	3.7	ERC	N/A	N/A
SC1516-166	SOX	26	4.7	ERC	N/A	N/A
Total		46	8.4	N/A		

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-167	CO	0	0	STERC	2016	2016
SC1516-168	CO	32	5.8	STERC	2017	9999
Total		32	5.8	N/A		

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-169	PM10	1	0.2	ERC	N/A	N/A
SC1516-170	PM10	0	0	STERC	2016	2016
SC1516-171	PM10	0	0	STERC	2017	2017
SC1516-172	PM10	0	0	STERC	2017	2017
SC1516-173	PM10	1	0.2	STERC	2019	9999
SC1516-174	PM10	1	0.2	ERC	N/A	N/A
SC1516-175	PM10	1	0.2	ERC	N/A	N/A
SC1516-176	PM10	1	0.2	ERC	N/A	N/A
SC1516-177	PM10	1	0.2	ERC	N/A	N/A
SC1516-178	PM10	1	0.2	ERC	N/A	N/A
SC1516-179	PM10	1	0.2	ERC	N/A	N/A
SC1516-180	PM10	0	0	STERC	2016	2016
SC1516-181	PM10	0	0	STERC	2017	2017
SC1516-182	PM10	0	0	STERC	2018	2018
SC1516-183	PM10	1	0.2	STERC	2019	9999
SC1516-184	PM10	0	0	STERC	2016	2016
SC1516-185	PM10	0	0	STERC	2017	2017
SC1516-186	PM10	1	0.2	STERC	2018	9999
SC1516-187	PM10	0	0	STERC	2016	2016
SC1516-188	PM10	0	0	STERC	2017	2017
SC1516-189	PM10	1	0.2	STERC	2018	9999
SC1516-190	PM10	1	0.2	ERC	N/A	N/A
SC1516-191	PM10	0	0	STERC	2016	2016
SC1516-192	PM10	0	0	STERC	2017	2017
SC1516-193	PM10	0	0	STERC	2018	2018
SC1516-194	PM10	1	0.2	STERC	2019	9999
SC1516-195	PM10	1	0.2	ERC	N/A	N/A
SC1516-196	PM10	1	0.2	ERC	N/A	N/A
SC1516-197	PM10	2	0.4	STERC	2019	9999

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-198	PM10	0	0	STERC	2018	2018
SC1516-199	PM10	0	0	STERC	2017	2017
SC1516-200	PM10	0	0	STERC	2016	2016
SC1516-201	PM10	0	0	STERC	2015	2015
SC1516-202	PM10	2	0.4	ERC	N/A	N/A
SC1516-203	PM10	2	0.4	ERC	N/A	N/A
SC1516-204	PM10	2	0.4	ERC	N/A	N/A
SC1516-205	PM10	3	0.5	ERC	N/A	N/A
SC1516-206	PM10	3	0.5	ERC	N/A	N/A
SC1516-207	PM10	3	0.5	ERC	N/A	N/A
SC1516-208	PM10	3	0.5	ERC	N/A	N/A
SC1516-209	PM10	3	0.5	ERC	N/A	N/A
SC1516-210	PM10	3	0.5	ERC	N/A	N/A
SC1516-211	PM10	4	0.7	STERC	2019	9999
SC1516-212	PM10	0	0	STERC	2018	2018
SC1516-213	PM10	0	0	STERC	2017	2017
SC1516-214	PM10	0	0	STERC	2016	2016
SC1516-215	PM10	0	0	STERC	2015	2015
SC1516-216	PM10	4	0.7	STERC	2019	9999
SC1516-217	PM10	0	0	STERC	2018	2018
SC1516-218	PM10	0	0	STERC	2017	2017
SC1516-219	PM10	0	0	STERC	2016	2016
SC1516-220	PM10	0	0	STERC	2015	2015
SC1516-221	PM10	4	0.7	ERC	N/A	N/A
SC1516-222	PM10	0	0	STERC	2016	2016
SC1516-223	PM10	0	0	STERC	2017	2017
SC1516-224	PM10	0	0	STERC	2018	2018
SC1516-225	PM10	5	0.9	STERC	2019	9999
SC1516-226	PM10	0	0	STERC	2016	2016
SC1516-227	PM10	0	0	STERC	2017	2017
SC1516-228	PM10	0	0	STERC	2018	2018
SC1516-229	PM10	5	0.9	STERC	2019	9999
SC1516-230	PM10	0	0	STERC	2016	2016
SC1516-231	PM10	0	0	STERC	2017	2017
SC1516-232	PM10	0	0	STERC	2018	2018
SC1516-233	PM10	5	0.9	STERC	2019	9999
SC1516-234	PM10	0	0	STERC	2016	2016
SC1516-235	PM10	0	0	STERC	2017	2017
SC1516-236	PM10	0	0	STERC	2018	2018
SC1516-237	PM10	5	0.9	STERC	2019	9999
SC1516-238	PM10	0	0	STERC	2016	2016
SC1516-239	PM10	0	0	STERC	2017	2017
SC1516-240	PM10	0	0	STERC	2018	2018
SC1516-241	PM10	5	0.9	STERC	2019	9999

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
SC1516-242	PM10	7	1.3	ERC	N/A	N/A
SC1516-243	PM10	0	0	STERC	2016	2016
SC1516-244	PM10	0	0	STERC	2017	2017
SC1516-245	PM10	7	1.3	STERC	2018	9999
SC1516-246	PM10	0	0	STERC	2016	2016
SC1516-247	PM10	0	0	STERC	2017	2017
SC1516-248	PM10	7	1.3	STERC	2018	9999
SC1516-249	PM10	8	1.5	ERC	N/A	N/A
SC1516-250	PM10	9	1.6	STERC	2015	9999
SC1516-251	PM10	9	1.6	ERC	N/A	N/A
SC1516-252	PM10	12	2.2	ERC	N/A	N/A
Total		137	25		N/A	

**Table 4: Emission Offset Application Summary – Fiscal Year 2015-16
Sorted by Pollutant and Amount**

SCAQMD NO.	POLLUTANT	AMOUNT (LB/DAY)	AMOUNT (TON/YR)	TYPE	START YEAR	END YEAR
No Banking Application Approved during Fiscal Year 2015-16						
Total		N/A	N/A		N/A	

CHAPTER III
BUDGET AND WORK PROGRAM FISCAL YEAR
2017-2018

[Attached herein as Chapter III]

Due to the bulk of these materials, Chapters III, IV and V of this report are available on CD, online at <http://www.aqmd.gov/docs/default-source/LPA-Outreach/sb-1928-report-to-legislature-september-2017.pdf>, or anyone wishing to obtain a hard copy may do so by contacting SCAQMD's Public Information Center at (909) 396-2001.

CHAPTER IV
CLEAN FUELS PROGRAM 2016 ANNUAL REPORT AND 2017 PLAN UPDATE

[Attached herein as Chapter IV]

Due to the bulk of these materials, Chapters III, IV and V of this report are available on CD, online at <http://www.aqmd.gov/docs/default-source/LPA-Outreach/sb-1928-report-to-legislature-september-2017.pdf>, or anyone wishing to obtain a hard copy may do so by contacting SCAQMD's Public Information Center at (909) 396-2001.

**CHAPTER V
ANNUAL RECLAIM AUDIT REPORT
FOR 2015 COMPLIANCE YEAR**

[Attached herein as Chapter V]

Due to the bulk of these materials, Chapters III, IV and V of this report are available on CD, online at <http://www.aqmd.gov/docs/default-source/LPA-Outreach/sb-1928-report-to-legislature-september-2017.pdf>, or anyone wishing to obtain a hard copy may do so by contacting SCAQMD's Public Information Center at (909) 396-2001.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 14

REPORT: Hearing Board Report

SYNOPSIS: This reports the actions taken by the Hearing Board during the period of June 1 through July 31, 2017.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file this report.

Julie Prussack
Chairman of Hearing Board

DG

Three summaries are attached: **June 2017 and July 2017 Hearing Board Cases and Rules From Which Variances and Orders for Abatement Were Requested in 2017.** An Index of District Rules is also attached.

The total number of appeals filed during the period June 1 to July 31, 2017 is 1; and total number of appeals filed during the period of January 1 to July 31, 2017 is 3.

Report of June 2017 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. County of Los Angeles Department of Public Works Case No. 6044-1 (N. Sanchez)	1110.2(d)(1)(B)	Extension of FCD to install compliant replacement equipment.	Not Opposed/Granted	MFCD/EXT granted commencing forthwith. The variance shall be for 800 nonconsecutive hours from 4/1/18 until the new electric hoist is certified or 4/30/20, whichever occurs first.	NOx: 1,188 lbs VOC: 2,331.8 lbs CO: 751.7 lbs
2. Los Angeles City Sanitation Bureau Hyperion Treatment Plant Case No. 1212-35 (M. Reichert)	202(a) 203(b) 1147(c) 3002(c)(1)	Extension of FCD to allow for delivery and testing of new thermal oxidizers.	Not Opposed/Granted	MFCD/EXT granted commencing 6/7/17 and continuing through 12/31/17.	NOx: 13.2 lbs/day
3. Mt. San Jacinto Winter Park Authority dba Palm Springs Aerial Tramway Case No. 5906-3 (S. Hanizavareh)	203(b)	Two ICEs will exceed 200 hour annual operating limit.	Not Opposed/Granted	RV granted commencing 6/22/17 and continuing through 12/31/17.	VOC: .14 lbs NOx: 2.92 lbs CO: .64 lbs PM: .006 lbs PNIO: .06 lbs
4. Rashid's Inc., dba University Mobil Case No. 6085-1 (V. Tyagi)	203(b) 461(e)(5)	Failed back pressure test	Not Opposed/Granted	SV granted commencing 6/28/17 and continuing through 7/27/17, or until final compliance is achieved, whichever comes first.	None
5. Tesoro (USA) 63046 Case No. 6087-1 (T. Barrera)	461(e)(1)	Failed to complete vapor recovery test by 6/23/17 as required.	Opposed/Denied	Ex Parte EV denied for lack of good cause.	None
6. SCAQMD vs City of Palm Springs Case No. 6084-1 (M. Reichert)	203(b) 1110.2(d)(1)(L)	Compliance with NOx and CO limits for unique, BACT equipment.	Stipulated/Issued	O/A issued commencing 6/7/17 and continuing through 6/1/18. The Hearing Board shall retain jurisdiction over this matter until 6/1/18.	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. Final Touch Dyeing and Finishing Case No. 6080-1 (D. Hsu)	203(b) 1146	Respondent failed to conduct annual source tests for several years. Modifications must be made to bring equipment into compliance.	Not Stipulated/Issued	O/A issued commencing 6/15/17. The Hearing Board shall retain jurisdiction over this matter until final compliance is achieved. Respondent is ordered to file permit applications by 8/18/17 and complete modification, installation and/or construction of equipment within 60 days from the issuance of the required permits.	N/A
8. SCAQMD vs. Veterans Administration Greater Los Angeles Health Care System Case No. 5895-4 (D. Hsu)	3002	Respondent operating equipment without proper permits.	Stipulated/Issued	O/A issued commencing 6/29/17 and continuing through 8/15/17. The Hearing Board shall retain jurisdiction over this matter until 8/30/17.	N/A

Acronyms

CO: Carbon Monoxide
EV: Emergency Variance
GDF: Gasoline Dispensing Facility
H&S: Health & Safety Code
IV: Interim Variance
MFCD/EXT: Modification of a Final Compliance Date & Extension of a Variance
Mod. O/A: Modification of an Order for Abatement
N/A: Not Applicable
NOx: Oxides of Nitrogen
O/A: Order for Abatement
SV: Short Variance

Report of July 2017 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. Beta Offshore Case No. 5855-6 (N. Sanchez)	203(b) 2004(f)(1) 3002(c)(1) 1110.2(d)(1)(B), Table II	Crane on offshore platform failed source test. Petitioner seeks to replace noncompliant engine.	Not Opposed/Granted	Ex Parte EV granted commencing 7/19/17 and continuing for 30 days or until the IV hearing currently scheduled for 7/27/17, whichever comes first.	VOC: .002 lb/day
2. Bowerman Power LFG, LLC Case No. 6088-1 (A. Gay and M. Reichert)	203(b) 1110.2 1703 3002(c)(1)	May exceed NOx emission limit while determining why new equipment is sporadically out of compliance.	Opposed/Dismissed	IV dismissed without prejudice for lack of good cause.	N/A
3. Los Angeles City, Department of Airports Case No. 4703-9 (K. Manwaring)	203(b) 2004(f)(1) 3002(c)(1) 1110.2(d)(2)(A)(ii)	Requested to operate PERP-registered back-up generator in lieu of District-permitted generator due to breakdown.	Opposed/Denied	Ex Parte EV denied.	N/A
4. SCAQMD vs. Carlton Forge Works Case No. 6086-1 (D. Hsu and N. Feldman)	402 H&S Code §41700	Odor nuisance from alloy manufacturing operations.	Stipulated/Issued	O/A issued commencing 7/27/17 and continuing through 12/31/18. The Hearing Board shall retain jurisdiction over this matter until 12/31/18.	N/A
5. Ultramar Inc., dba Valero Wilmington Refinery Case No. 3845-96 (T. Barrera)	203(b) 3002(c)(1)	Requested permission to increase throughput of crude storage tank beyond permitted limit.	Not Opposed/Granted	RV and AOC granted commencing 7/22/17 and continuing through 10/31/17, the FCD.	None

Acronyms

AOC: Alternative Operating Conditions
APC: Air Pollution Control
BACT: Best Available Control Technology
BTU: British Thermal Unit
CEMS: Continuous Emissions Monitoring System
CEQA: California Environmental Quality Act
CO: Carbon Monoxide
DPF: Diesel Particulate Filter
EV: Emergency Variance
FCCU: Fluid Catalytic Cracking Unit
FCD: Final Compliance Date
GDF: Gasoline Dispensing Facility
H₂S: Hydrogen Sulfide
H&S: Health & Safety Code
ICE: Internal Combustion Engine
I/P: Increments of Progress
IV: Interim Variance
MFC/EXT: Modification of a Final Compliance Date and Extension of a Variance
Mod. I/P: Modification Increments of Progress

Mod. O/A: Modification Order for Abatement
NH₃: Ammonia
NOV: Notice of Violation
NO_x: Oxides of Nitrogen
N/A: Not Applicable
O/A: Order for Abatement
PERP: Portable Equipment Registration Program
PM: Particulate Matter
PPM: Parts Per Million
RATA: Relative Accuracy Test Audit
ROG: Reactive Organic Gases
RTO: Regenerative Thermal Oxidizer
RV: Regular Variance
SCR: Selective Catalytic Reduction
SO_x: Oxides of Sulfur
SV: Short Variance
TBD: To be determined
VOC: Volatile Organic Compound
VRS: Vapor Recovery System

Rules from which Variances and Orders for Abatement were Requested in 2017

	2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
# of HB Actions Involving Rules														
202(a)			1	1	1		1							4
203(a)		1	1	1	2									5
203(b)		6	4	6	3	3	5	4						31
402		2	2	3	1	1		1						10
403(d)(1)					1									1
403(d)(2)					1									1
403(d)(3)					1									1
442			2											2
461(e)(2)						1								1
461(e)(1)							1							1
461(e)(3)			1											1
203(a)		1	1	1	2									5
203(b)		6	4	6	3	3	5							27
1110.2								1						1
1110.2(d)(1)(B), Table II		1					1	1						3
1110.2(d)(1)(L)							1							1
1110.2(d)(2)(A)(ii)								1						1
1146							1							1
1147		1												1
1147(c)			1	1			1							3
1153.1(c)(3)						1								1
1153.1(c)(6)						1								1
1176(f)(3)		1												1
1470(c)(3)(C)(iii)			1											1
1703								1						1
2004(f)(1)		6	1	3	2	1		2						15
2011(c)(2)			1											1
2012(c)(2)(A)				1										1
2012(c)(3)(A)				1										1
3002							1							1
3002(a)			1											1
3002(c)(1)		3	4	4	2	1	1	4						19
H&S 41700		2	2	3	1	1		1						10

REGULATION XXX - TITLE V PERMITS

Rule 3002 Requirements

Rule 3003 Applications

CALIFORNIA HEALTH AND SAFETY CODE

§41700 Prohibited Discharges

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 15

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS: This reports the monthly penalties from June 1 through June 30, 2017, and legal actions filed the General Counsel's Office from June 1 through June 30, 2017. An Index of District Rules is attached with the penalty report.

COMMITTEE: Stationary Source, July 21, 2017, Reviewed

RECOMMENDED ACTION:
Receive and file this report.

Kurt R. Wiese
General Counsel

KRW:lc

No Civil Actions Filed

Attachments

June 2017 Penalty Reports

Index of District Rules and Regulations

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office**

June 2017 Settlement Penalty Report

Total Penalties

Civil Settlements:	\$582,963.00
SEP Cash Settlements:	\$1,250,000.00
MSPAP Settlements:	\$28,515.00
Hearing Board Settlements:	\$15,000.00
Total Cash Settlements:	\$1,876,478.00
Total SEP Value:	\$250,000.00
Fiscal Year through 6 / 2017 Cash Total:	\$11,301,022.00
Fiscal Year through 6 / 2017 SEP Value Only Total:	\$2,300,000.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
Civil						
148236	AIR LIQUIDE LARGE INDUSTRIES U.S., LP	2004(f)(1) 2005 3002(c)(1)	6/27/2017	TRB	P57083	\$10,000.00
22911	CARLTON FORGE WORKS	2004	6/19/2017	DH	P64403	\$73,150.00
146284	FLAVURENCE CORPORATION	203 (b)	6/6/2017	BTG	P62373	\$365,500.00
161141	JR OIL Small Claims Case No. 17AHSC03837	41960.2 461(c) 461(c)(2)(B)	6/26/2017	JS	P64260	\$350.00
800074	LA CITY, DWP HAYNES GENERATING STATION	2004 3002	6/13/2017	NSF	P37245	\$5,000.00
800234	LOMA LINDA UNIV	3002 1134 3002(c)(1) 3002(c)(1)	6/13/2017	TRB	P58093 P59279 P59281	\$3,500.00
172005	NEW INDY ONTARIO, LLC	2004	6/1/2017	KRW	P64408	\$1,000.00
47781	OLS ENERGY-CHINO	2004	6/19/2017	TRB	P57084	\$250.00
164257	ORCHARD SUPPLY HARDWARE "OSH"	1143	6/19/2017	WW	P60340	\$85,613.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
60812	OVERHILL FARMS INC \$8000.00 for NOV \$2,000 for terms under the Order for Abatement Settlement includes terms and conditions for Hearing Board Case No. 6076-1 Facility paid penalties for four months in relation to the timeline proposed and agreed upon to install the new burners and provide source testing data for review and approval. 1153.1	203 (b) 1153.1	6/1/2017	DH	P64124	\$10,000.00
7427	OWENS-BROCKWAY GLASS CONTAINER INC	2004 2011 3002(c)(1)	6/26/2017	TRB	P57865	\$2,500.00
173247	PACIFIC CHROME SERVICES	1469	6/19/2017	TRB	P53994	\$6,000.00
800079	PETRO DIAMOND TERMINAL CO	303 1178 463 3002(c)(1) 3002(c)(1)	6/13/2017	TRB	P34694 P61510 P61511 P61512	\$7,500.00
132192	PUREENERGY OPERATING SERVICES	2012	6/15/2017	TRB	P57091	\$500.00
14437	SAN ANTONIO COMMUNITY HOSPITAL	1146 3002	6/8/2017	VKT	P59273	\$5,000.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
159208	SHAHKOT PETROLEUM, INC Small Claims Case No. 30-2017-00920600-SC-SC-HNB	461(E)(2)(A)	6/22/2017	JS	P63040	\$600.00
153199	THE KROGER CO/RALPHS GROCERY CO	2004 2004 2012 2004 2012	6/15/2017	MJR	P53143 P57090 P57863 P57870	\$6,500.00

Total Civil Settlements: \$582,963.00

Supplemental Environmental Project Settlement:

177615	Brenntag Pacific UP Yard Cash \$1,250,000.00; SEP: \$250,000.00 Facility shall pay \$250,000 as a SEP to the District and shall be managed and used by the District to benefit the residents of the District.	201, 203	6/30/2017	BTG	P60503	\$1,500,000.00
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Total SEP: \$1,500,000.00

MSPAP Settlements

175516	7-ELEVEN #35343/MAKHTAR KAMARA	201 203(a) 461	6/22/2017	GV	P64340	\$1,000.00
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Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
175516	7-ELEVEN #35343/MAKHTAR KAMARA	461	6/22/2017	GV	P64346	\$1,300.00
182118	AESOS OIL INC	201 203(a) 41960.2 461	6/22/2017	JS	P64341	\$720.00
182118	AESOS OIL INC	201 203 (a) 461	6/22/2017	JS	P64344	\$2,580.00
143695	ANAHEIM GASOLINE FOODMART & CARWASH	461	6/22/2017	JS	P64347	\$1,365.00
169906	ARCO FACILITY, 82872, FARZ, INC.	203 (b)	6/1/2017	GC	P64324	\$1,700.00
121570	C B SHEETS	1146	6/1/2017	JS	P63910	\$675.00
55810	DEL MAR GAS, OHANES KEJEJIAN DBA	461(E)(2)(A)	6/22/2017	GC	P65001	\$650.00
118937	FAHMI TEXACO, RAGAA FAHMI, DBA	461(c)(2)(B)	6/1/2017	TF	P64309	\$1,500.00
183192	HOMELAND CENTER SHELL, AL HUSN, INC	201	6/1/2017	TF	P36747	\$550.00
158340	I & V VENTURES INC.	203 (b) 41960.2 461(c) 461(c)(2)(B)	6/1/2017	GC	P65002	\$800.00
20943	LA CO., BARRY J. NIDORF PROBATION	1146	6/1/2017	TF	P62173	\$1,100.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
37781	MONROVIA CLEANERS	1421	6/22/2017	TF	P65355	\$750.00
100159	NORTH COUNTY SAND & GRAVEL	PERP 2457	6/22/2017	GV	P65552	\$1,500.00
176731	PACIFIC TANK LINES	461(c)	6/1/2017	TF	P63125	\$750.00
157059	RENAISSANCE CLUB SPORT	1470	6/15/2017	TF	P64065	\$1,500.00
160406	RIVERSIDE USD, NORTH HIGH SCHOOL	203 (a)	6/22/2017	TF	P64163	\$375.00
24244	S.T. & I. INC.	203	6/22/2017	GV	P63510	\$1,000.00
100168	SIAM MINH CORPORATION	41960.2 461 461(c) 461(c)(2)(A) 461(c)(2)(B)	6/1/2017	GV	P63129	\$600.00
78782	SO CAL SANDBAGS	PERP 2457	6/22/2017	GV	P65354	\$1,500.00
181526	STATE OF CALIFORNIA	203 (a)	6/1/2017	GV	P64165	\$2,000.00
139448	SUNRISE CLEANERS, NAM KI KIM DBA	1421	6/1/2017	GV	P65356	\$400.00
136929	T.G.L.	461 461(c)(2)(B)	6/1/2017	GV	P65011	\$450.00
182827	TORRANCE LOGISTICS COMPANY LLC	1403	6/22/2017	GV	P63558	\$1,100.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
170424	VALERO GAS	461	6/1/2017	GV	P64967	\$450.00
165278	VALLEY VIEW 76	41960.2 461	6/1/2017	GV	P64345	\$600.00
141488	VIP CLEANERS, INC	1146.2	6/1/2017	GV	P63677	\$1,600.00

Total MSPAP Settlements: \$27,565.00

Hearing Board Settlements

61981	County of Riverside Indio Juvenile Hall Hearing Board Case No. 6075-1	203(a), 1470((c)	6/22/2017	NSF		\$15,000.00
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Total Hearing Board Settlements: \$15,000.00

DISTRICT RULES AND REGULATIONS INDEX FOR JUNE 2017 PENALTY REPORTS

REGULATION II – PERMITS

- Rule 201 Permit to Construct (*Amended 1/5/90*)
- Rule 203 Permit to Operate (*Amended 1/5/90*)

REGULATION III - FEES

- Rule 303 Hearing Board Fees (*Amended 5/11/01*)

REGULATION IV - PROHIBITIONS

- Rule 461 Gasoline Transfer and Dispensing (*Amended 6/15/01*)
- Rule 463 Storage of Organic Liquids (*Amended 3/11/94*)

REGULATION XI - SOURCE SPECIFIC STANDARDS

- Rule 1134 Emissions of Oxides of Nitrogen from Stationary Gas Turbines (*Amended 8/8/97*)
- Rule 1143 Consumer Paint Thinners & Multi-Purpose Solvents
- Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters (*Amended 11/17/00*)
- Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers (*Adopted 1/9/98*)
- Rule 1153.1 Emissions Of Oxides Of Nitrogen From Commercial Food Ovens
- Rule 1178 Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities (*Amended 4/7/06*)

REGULATION XIV – TOXICS

- Rule 1403 Asbestos Emissions from Demolition/Renovation Activities (*Amended 4/8/94*)
- Rule 1421 Control of Perchloroethylene Emissions from Dry Cleaning Operations (*Amended 6/13/97*)
- Rule 1469 Hexavalent Chromium Emissions From Chrome Plating and Chromic Acid Anodizing Operations (*Adopted 10/9/98*)
- 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 (*Amended 5/11/01*)
- Rule 2005 New Source Review for RECLAIM (*Amended 4/20/01*)
- Rule 2011 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SO_x) Emissions
- Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions
(*Amended 5/11/01*)

REGULATION XXX - TITLE V PERMITS

- Rule 3002 Requirements (*Amended 11/14/97*)

CALIFORNIA HEALTH AND SAFETY CODE § 41700

- 41960.2 Gasoline Vapor Recovery

CODE OF FEDERAL REGULATIONS

- 40 CFR – Protection of the Environment

CALIFORNIA CODE OF REGULATIONS

- PERP 2457 Requirements for Portable Equipment Units

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 16

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, 2017 and July 31, 2017, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: The Mobile Source Committee, on July 21, 2017 reviewed the June 1 – June 30, 2017 portion of the report; while the July 1 – July 31 2017 portion has had no committee review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PF:SN:JW:LS: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, 2017 through July 31, 2017 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 192 CEQA documents were received during this reporting period and 59 comment letters were sent. Notable projects in this report are: San Gorgonio Crossings in the County of Riverside; Berths 97-109 (China Shipping) Container Terminal Project at the Port of Los Angeles; Los Angeles International Airport (LAX) Terminals 2 and 3 Modernization; Los Cerritos Wetlands Restoration and Oil Project in the City of Long Beach; and I-710 Corridor Project in the County of Los Angeles.

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. Furthermore, 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; and 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 the SCAQMD 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 the SCAQMD staff testified at a hearing for the proposed

project, a notation is provided under the “Comment Status.” If there is no notation, then SCAQMD staff did not provide testimony at a hearing for the proposed project. During the period June 1, 2017 through July 31, 2017, the SCAQMD received 192 CEQA documents. Of the total of 215 documents* listed in Attachments A and B:

- 59 comment letters were sent;
- 112 documents were reviewed, but no comments were made;
- 20 documents are currently under review;
- 1 document did not require comments (e.g., public notices);
- 0 documents were not reviewed; and
- 23 documents were screened without additional review.

* These statistics are from June 1, 2017 to July 31, 2017 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 five 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, 2017 to June 30, 2017**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Airports</i> LAC170629-06 Los Angeles International Airport (LAX) Terminals 2 and 3 Modernization	The proposed project consists of the modernization of Terminals 2 and 3 at LAX. The modernization will include the demolition of the existing service areas and the construction of 832,000 square feet of new building space, resulting in a total square footage of 1,620,010 square feet. The project is scheduled to be completed in stages over 76 months beginning in 2017. The project is located at 1 World Way within the Central Terminal Area of LAX between Terminal 1 to the east and the Tom Bradley International Terminal to the west. Reference LAC170223-04 and LAC160811-03 Comment Period: 6/28/2017 - 7/12/2017 Public Hearing: 7/13/2017	Final Environmental Impact Report	Los Angeles World Airports	** Under review, may submit written comments
<i>Industrial and Commercial</i> LAC170620-07 Malibu Surfrider Plaza	The proposed project consists of the demolition of an existing parking lot and the construction of a 7,713-square-foot commercial plaza with subterranean parking. The project is located at 22959 Pacific Coast Highway on the northwest corner of Sweetwater Canyon Drive and Pacific Coast Highway. Comment Period: 6/19/2017 - 7/19/2017 Public Hearing: N/A	Mitigated Negative Declaration	City of Malibu	** Under review, may submit written comments
<i>Industrial and Commercial</i> LAC170627-02 Crossroads Hollywood (ENV-2015-2026-EIR)	This document extends the public review period from June 26 to July 26, 2017. The proposed project consists of the demolition of 172,573 square feet of residential units and commercial and office uses, and the construction of a 1,432,000-square-foot mixed-use development with 950 residential units, 308 hotel rooms, 95,000 square feet of office uses, and 185,000 square feet of commercial and retail uses. The project is located on the northeast corner of Sunset Boulevard and Highland Avenue in the community of Hollywood. Reference LAC170511-03, LAC170112-06 and LAC151023-03 Comment Period: 5/11/2017 - 7/26/2017 Public Hearing: N/A	Notice of Extension	City of Los Angeles	Document reviewed - No comments sent
<i>Industrial and Commercial</i> LAC170628-03 Colima Commercial Center (R2015-01765)	The proposed project consists of the construction of a 30,961-square-foot commercial building with subterranean parking on 1.49 acres. The project is located at 18809-18811 Colima Road on the northwest corner of Colima Road and Paso Real Avenue in the community of Rowland Heights. Comment Period: 6/26/2017 - 7/25/2017 Public Hearing: N/A	Initial Project Consultation	County of Los Angeles	** 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, 2017 to June 30, 2017**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Industrial and Commercial</i> LAC170629-07 L.A. Valley Garden Plaza Project (9933 Valley Blvd.)	The proposed project consists of the demolition of a 12,000-square-foot structure and the construction of a 17,000-square-foot commercial building with subterranean parking on 0.52 acres. The project is located on the northwest corner of Valley Boulevard and Eunice Avenue. Comment Period: 6/29/2017 - 7/20/2017 Public Hearing: 8/8/2017	Mitigated Negative Declaration	City of El Monte	** Under review, may submit written comments
<i>Industrial and Commercial</i> ORC170627-04 PA-17-03	The proposed project consists of the construction of three office buildings totaling 655,000 square feet on 23.5 acres. The project is located on the southeast corner of Harbor Boulevard and Sunflower Avenue. Comment Period: 6/23/2017 - 7/24/2017 Public Hearing: 8/14/2017	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Costa Mesa	** Under review, may submit written comments
<i>Industrial and Commercial</i> RVC170620-01 Murrieta's Hospitality Commons Project (Development Plan 2016-1010 and Tentative Parcel Map 2016-990)	The proposed project consists of the construction of an 86,600-square-foot commercial center with a 105-bed hotel on 6.47 acres. The project is located on the northwest corner of Los Alamos Road and Monroe Avenue. Reference RVC170511-08 Comment Period: N/A Public Hearing: 6/28/2017	Notice of Public Hearing	City of Murrieta	Document reviewed - No comments sent
<i>Industrial and Commercial</i> RVC170620-02 Pilot Flying J Travel Center Project	The proposed project consists of the 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 RVC170321-03 and RVC170222-02 Comment Period: 6/15/2017 - 6/30/2017 Public Hearing: N/A	Site Plan	City of Jurupa Valley	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, 2017 to June 30, 2017**

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Industrial and Commercial</i> RVC170622-01 Plot Plan No. 26241, Amended No. 1 - EA43014	The proposed project consists of the construction of a trucking support facility with a 14,000-square-foot maintenance building and a 9,600-square-foot fuel island on 17.7 acres. The project is located on the northwest corner of Water Street and Frontage Road in the community of Mead Valley. Reference RVC170502-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/sp-ppno26241-062717.pdf Comment Period: 6/12/2017 - 6/29/2017 Public Hearing: 6/29/2017	Site Plan	County of Riverside	SCAQMD staff commented on 6/27/2017
<i>Industrial and Commercial</i> SBC170601-01 Design Review DRC2016-00695	The proposed project consists of the construction of two industrial buildings totaling 150,003 square feet on 7.52 acres. The project is located at 9500 and 9505 Feron Boulevard near the southeast corner of East 9th Street and Helms Avenue. Reference SBC170310-03 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Rancho Cucamonga	Document reviewed - No comments sent
<i>Industrial and Commercial</i> SBC170621-02 IPT Arrow Route DC, LP DRC2016-00726	The proposed project consists of the construction of a 611,573-square-foot industrial building on 26.63 acres. The project is located on the northwest corner of Arrow Route and Etiwanda Avenue. Comment Period: 6/19/2017 - 7/26/2017 Public Hearing: 7/26/2017	Mitigated Negative Declaration	City of Rancho Cucamonga	** Under review, may submit written comments
<i>Waste and Water-related</i> LAC170607-01 Joint Water Pollution Control Plant Biogas Conditioning System	The proposed project consists of the installation of a biogas conditioning system on 20,000 square feet within 220 acres. The project will also include the installation of three pipelines: (1) two 1,355-foot biogas supply pipelines, (2) a 2,375-foot tail gas return pipeline, and (3) a 550-foot water drainage pipeline. The project is located on the southwest corner of Sepulveda Boulevard and South Figueroa Street in the City of Carson. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/mnd-jointwaterpollution-061317.pdf Comment Period: 5/16/2017 - 6/14/2017 Public Hearing: N/A	Mitigated Negative Declaration	Los Angeles County Sanitation District	SCAQMD staff commented on 6/13/2017

- 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 C-1
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JUNE 30, 2017**

PROJECT DESCRIPTION	PROONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<p>Edgington Oil Company (Edgington) is proposing the following modifications at its existing Edgington Refinery site to allow for additional flexibility in using the site for terminalling operations: 1) add 18 offloading arms at its existing rail tank car loading facility to allow for the offloading of distillates, biodiesel, and renewables (diesel and jet fuels), ethanol, naphtha, alkylates, reformate, and isooctane; 2) modify seven truck loading racks to allow distillates, biodiesel, and renewables to be loaded; 3) modify one rack (two arms) to allow unloading of crude oil from trucks; and 4) modify 16 existing fixed roof asphalt storage tanks to allow storage of distillates, biodiesel, and renewables.</p>	<p>Edgington Oil Company</p>	<p>Initial Study (IS)</p>	<p>An Initial Study has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>InterAct</p>
<p>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.</p>	<p>Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery</p>	<p>Environmental Impact Report (EIR)</p>	<p>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 responses to comments are being prepared.</p>	<p>Environmental Audit, Inc.</p>
<p>Quemetco is proposing an increase in the daily furnace feed rate.</p>	<p>Quemetco</p>	<p>Environmental Impact Report (EIR)</p>	<p>A Notice of Preparation/Initial Study (NOP/IS) has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Trinity Consultants</p>

**ATTACHMENT C-1
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JUNE 30, 2017**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<p>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.</p>	<p>Southern California Edison</p>	<p>Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Barre Peaker Project in Stanton</p>	<p>A draft Addendum has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Yorke Engineering, LLC</p>
<p>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.</p>	<p>Southern California Edison</p>	<p>Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Mira Loma Peaker Project in Ontario</p>	<p>A draft Addendum has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Yorke Engineering, LLC</p>

**ATTACHMENT A-2
INCOMING CEQA DOCUMENTS LOG
July 01, 2017 to July 31, 2017**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Airports</i> LAC170727-07 Los Angeles International Airport (LAX) Secured Area Access Post Project	The proposed project consists of the demolition of a vacant office building, and the construction of a new Secured Area Access Post with two canopy structures and two, 350-square-foot guard stations on 4.1 acres. The project is located on the southeast corner of World Way West and Pershing Drive. Reference LAC170421-04 Comment Period: 7/27/2017 - 9/11/2017 Public Hearing: N/A	Draft Environmental Impact Report	Los Angeles World Airports	Under review, may submit written comments
<i>Industrial and Commercial</i> LAC170713-03 AL2 Carson 420K Industrial Building	The proposed project consists of the construction of a 420,000-square-foot building on 19.85 acres. The project is located at 21900 South Wilmington Avenue on the northeast corner of Wilmington Avenue and East 220th Street. Reference LAC170525-07 Comment Period: 7/13/2017 - 7/27/2017 Public Hearing: N/A	Response to Comments	City of Carson	Document reviewed - No comments sent
<i>Industrial and Commercial</i> LAC170718-01 9000 Wilshire Boulevard Commercial Project	The proposed project consists of the demolition of two commercial buildings and the construction of a 31,702-square-foot commercial building with subterranean parking on 0.36 acres. The project is located on the southwest corner of Wilshire Boulevard and South Almont Drive. Reference LAC170106-03 and LAC160802-13 Comment Period: N/A Public Hearing: 7/27/2017	Response to Comments	City of Beverly Hills	Document reviewed - No comments sent
<i>Industrial and Commercial</i> RVC170705-11 Toscana Village at Temescal Valley	The proposed project consists of the construction of 15 commercial buildings totaling 139,100 square feet. The project will also include the construction of a gas station with 12 fueling stations 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. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/nop-toscanavillage-072717.pdf Comment Period: 7/3/2017 - 8/2/2017 Public Hearing: N/A	Notice of Preparation	County of Riverside	SCAQMD staff commented on 7/27/2017

- 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
July 01, 2017 to July 31, 2017**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Industrial and Commercial</i> RVC170711-07 Forterra Pipe Manufacturing Facility (CUP 2016-263)	The proposed project consists of the construction of a 16,323-square-foot metal building on 24.51 acres. The project is located on the northeast corner of Matthews Road and Palomar Road. Comment Period: 7/7/2017 - 7/27/2017 Public Hearing: 7/27/2017	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Menifee	Document reviewed - No comments sent
<i>Industrial and Commercial</i> RVC170726-03 Muhlhauser Steel Project	The proposed project consists of the construction of a 39,000-square-foot commercial building on 8.06 acres. The project is located on the northeast corner of Adams Avenue and Fig Street. Comment Period: 7/24/2017 - 8/23/2017 Public Hearing: N/A	Mitigated Negative Declaration	City of Murrieta	Under review, may submit written comments
<i>Industrial and Commercial</i> SBC170725-04 CR England Trucking Yard Expansion	The proposed project consists of the construction of a 1,206-square-foot office building and an 8,720-square-foot fueling station on 9.79 acres. The project is located at 2200 South Riverside Avenue on the southeast corner of Agua Mansa Road and South Riverside Avenue. Comment Period: 7/24/2017 - 8/14/2017 Public Hearing: 8/22/2017	Mitigated Negative Declaration	City of Colton	Under review, may submit written comments
<i>Industrial and Commercial</i> SBC170726-01 IPT Arrow Route DC, LP DRC2016-00726	The proposed project consists of the construction of a 611,573-square-foot industrial building on 26.63 acres. The project is located on the northwest corner of Arrow Route and Etiwanda Avenue. Reference SBC170621-02 Comment Period: N/A Public Hearing: 7/26/2017	Response to Comments	City of Rancho Cucamonga	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
<i>Institutional (schools, government, etc.)</i> ORC170622-05 Howell Elementary School Project	The proposed project consists of the construction of a 103,600-square-foot school with 335,000 square feet of outdoor space on 17 acres. The project is located on the southwest corner of East Howell Avenue and East Katella Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/nop-howellelementary-071117.pdf Comment Period: 6/22/2017 - 7/21/2017 Public Hearing: 7/12/2017	Notice of Preparation	Anaheim Elementary School District	SCAQMD staff commented on 7/11/2017
<i>Retail</i> RVC170622-04 Dillon Road Hotel & Restaurant Complex	The proposed project consists of the construction of two restaurants totaling 8,000 square feet and two hotel buildings with 153 rooms on 5.45 acres. The project is located on the northeast corner of Vista Del Norte and Dillon Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/mnd-dillonroadhotel-071117.pdf Comment Period: 6/22/2017 - 7/12/2017 Public Hearing: 7/19/2017	Mitigated Negative Declaration	City of Coachella	SCAQMD staff commented on 7/11/2017
<i>Retail</i> RVC170627-01 Zanderson Plaza - ZC16-003, TPM37196 (MAP16-003), CUP16-006	The proposed project consists of the construction of a 6,200-square-foot convenience store with 20 gas pumps, three 5,000-square-foot restaurants, and 40,000 square feet of retail buildings on 8.67 acres. The project is located on the northeast corner of North Sandersen Avenue and West Menlo Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/mnd-zandersonplaza-071417.pdf Comment Period: 6/26/2017 - 7/15/2017 Public Hearing: 7/18/2017	Mitigated Negative Declaration	City of Hemet	SCAQMD staff commented on 7/14/2017
<i>Retail</i> SBC170621-03 7-Eleven Convenience Store and Fuel Station (CUP-17-002, DRA-17-005 and TPM-17-001)	The proposed project consists of the 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. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/mnd-7elevenconvenience-071117.pdf Comment Period: 6/20/2017 - 7/11/2017 Public Hearing: 8/1/2017	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Highland	SCAQMD staff commented on 7/11/2017
<i>General Land Use (residential, etc.)</i> LAC170620-08 Treeland Homes Project (ENV-2016-3636-EIR)	The proposed project consists of the demolition of an existing nursing home, and the construction of a 60,527-square-foot eldercare building with 121 residential units and 22 acres of open space on 32.41 acres. The project is located on the northwest corner of Long Valley Road and Valley Circle Boulevard in the community of Canoga Park-Winnetka-Woodland Hills-West Hills. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/nop-treelandhomes-071117.pdf Comment Period: 6/19/2017 - 7/20/2017 Public Hearing: 6/27/2017	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 7/11/2017

- 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**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<p><i>General Land Use (residential, etc.)</i></p> <p>LAC170622-08 1360 N. Vine Street</p>	<p>The proposed project consists of the construction of a 475,433-square-foot building with 421 residential units and subterranean parking on 81,050 square feet. The project is located on the southeast corner of Vine Street and De Longpre Avenue in the community of Hollywood.</p> <p>http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/nop-1360nvinestreet-071117.pdf</p> <p style="text-align: center;">Comment Period: 6/22/2017 - 7/21/2017 Public Hearing: 7/7/2017</p>	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 7/11/2017
<p><i>General Land Use (residential, etc.)</i></p> <p>LAC170628-02 5420 Sunset (ENV-2017-1084-EIR)</p>	<p>The proposed project consists of the demolition of 100,796 square feet of existing commercial space, and the construction of an 845,868-square-foot building with 735 residential units and subterranean parking on 6.75 acres. The project is located on the southeast corner of Sunset Boulevard and Western Avenue in the community of Hollywood.</p> <p>http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/nop-5420sunset-072117.pdf</p> <p style="text-align: center;">Comment Period: 6/28/2017 - 7/28/2017 Public Hearing: 7/13/2017</p>	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 7/21/2017

- 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, 2017**

PROJECT DESCRIPTION	PROONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<p>Edgington Oil Company (Edgington) is proposing the following modifications at its existing Edgington Refinery site to allow for additional flexibility in using the site for terminalling operations: 1) add 18 offloading arms at its existing rail tank car loading facility to allow for the offloading of distillates, biodiesel, and renewables (diesel and jet fuels), ethanol, naphtha, alkylates, reformate, and isooctane; 2) modify seven truck loading racks to allow distillates, biodiesel, and renewables to be loaded; 3) modify one rack (two arms) to allow unloading of crude oil from trucks; and 4) modify 16 existing fixed-roof asphalt storage tanks to allow storage of distillates, biodiesel, and renewables.</p>	<p>Edgington Oil Company</p>	<p>Initial Study (IS)</p>	<p>An Initial Study has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>InterAct</p>
<p>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.</p>	<p>Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery</p>	<p>Environmental Impact Report (EIR)</p>	<p>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 responses to comments are being prepared.</p>	<p>Environmental Audit, Inc.</p>
<p>Quemetco is proposing an increase in the daily furnace feed rate.</p>	<p>Quemetco</p>	<p>Environmental Impact Report (EIR)</p>	<p>A Notice of Preparation/Initial Study (NOP/IS) has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Trinity Consultants</p>

**ATTACHMENT C-2
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JULY 31, 2017**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<p>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.</p>	<p>Southern California Edison</p>	<p>Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Barre Peaker Project in Stanton</p>	<p>A draft Addendum has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Yorke Engineering, LLC</p>
<p>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.</p>	<p>Southern California Edison</p>	<p>Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Mira Loma Peaker Project in Ontario</p>	<p>A draft Addendum has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Yorke Engineering, LLC</p>

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 17

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights SCAQMD rulemaking activities and public workshops potentially scheduled for 2017 and a portion of 2018.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Natri
Executive Officer

PMF:SN:AFM:RM

2017 MASTER CALENDAR

The table below summarizes changes to the schedule since July's Rule and Control Measure Forecast Report. Staff will continue to work with all stakeholders as these projects move forward.

Reg. IX Reg. X	Standards of Performance for New Stationary Sources National Emission Standards for Hazardous Air Pollutants
Proposed Amended Reg. IX and Reg. X are being moved from October to fourth quarter of 2018 due to incorporation of NSPS and NESHAP standards into Regulations IX and X not being critical at this time, based on staff's review of applicable Federal Register Publications.	
1118.1	Control of Emissions from Non-Refinery Flares
Proposed Rule 1118.1 is being moved from November to the first quarter of 2018 to allow ongoing staff site visits and development of emissions inventory.	
1435	Control of Emissions from Metal Heat Treating Processes
Proposed Rule 1435 is being moved from November to second quarter of 2018 due to other rulemaking priorities and the staffing and resources necessary to conduct rule development activities.	

1466	Control of Particulate Emissions from Soils with Toxic Air Contaminants
Rule 1466 was adopted on July 7, 2017. The adoption resolution directed staff to return to the Board as early as practicable to amend the rule to expand the list of applicable toxic air contaminants.	

2017 MASTER CALENDAR

**An asterisk indicates that the rulemaking is a potentially significant hearing.*

+This proposed rule will reduce criteria air contaminants and assist toward attainment of ambient air quality standards.

2017

Month	Title and Description	Type of Rulemaking
October		
1168	<p>Adhesive and Sealant Applications (CTS-02) Amendments to Rule 1168 will partially implement CTS-02 and reflect improvements in adhesive and sealant technology, as well as remove outdated provisions and include minor clarifications. <i>Michael Krause 909.396.2706 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
November		
1148.3	<p>Requirements for Underground Gas Storage Proposed Rule 1148.3 will establish requirements to address public nuisance and VOC emissions from underground natural gas storage facilities. <i>Susan Nakamura 909.396.3105 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1180	<p>Refinery Fenceline and Community Monitoring Proposed Rule 1180 will establish requirements for fenceline and community monitoring at petroleum refineries. <i>Susan Nakamura 909.396.3105 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1407* 1407.1	<p>Control of Emissions of Arsenic, Cadmium and Nickel from Non-Ferrous Metal Operations Proposed Rule 1407 will establish additional requirements to minimize air toxics from metal operations. Staff is analyzing sources subject to Rule 1407 and may develop a separate Rule 1407.1 for the largest sources subject to Rule 1407. <i>Susan Nakamura 909.396.3105 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Toxics

2017 MASTER CALENDAR

November (cont'd)	Title and Description	Type of Rulemaking
1420	<p>Emission Standard for Lead In October 2008, U.S. EPA lowered the National Ambient Air Quality Standard (NAAQS) for lead from 1.5 to 0.15 µg/m³. Proposed Rule 1420 will establish requirements for lead-emitting sources that are not covered under Rules 1420.1 and Rule 1420.2 to ensure compliance with the lead NAAQS.</p> <p align="right"><i>Susan Nakamura 909.396.3105 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Toxics
December		
1153.1	<p>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.</p> <p align="right"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1410*	<p>Hydrogen Fluoride Use at Refineries Proposed Rule 1410 will establish requirements for use of hydrogen fluoride at refineries.</p> <p align="right"><i>Michael Krause 909.396.2706 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Toxics
1426*	<p>Emissions from Metal Finishing Operations Proposed amendments to Rule 1426 will establish requirements to reduce nickel, cadmium and other air toxics from plating operations.</p>	Toxics
1469*	<p>Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations Proposed Amended Rule 1469 will strengthen requirements to address potential fugitive emissions from hexavalent chrome plating and anodizing operations.</p> <p align="right"><i>Susan Nakamura 909.396.3104 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Toxics
1445	<p>Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce toxic metal particulate emissions from laser arc cutting.</p> <p align="right"><i>Susan Nakamura 909.396.3105 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Toxics

2017 MASTER CALENDAR

December		
1466	<p>Control of Particulate Emissions from Soils with Toxic Air Contaminants</p> <p>Rule 1466 was adopted on July 7, 2017. The adoption resolution directed staff to return to the Board as early as practicable to amend the rule to expand the list of applicable toxic air contaminants.</p> <p style="text-align: center;"><i>Susan Nakamura 909.396.3105 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	

2017 To-Be-Determined

To-Be-Determined	Title and Description	Type of Rulemaking
102	<p>Definition of Terms</p> <p>Staff may amend Rule 102 to add or revise definitions to support amendments to other Regulation XI rules.</p> <p style="text-align: center;"><i>Susan Nakamura 909.396.3105 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
223	<p>Emission Reduction Permits for Large Confined Animal Facilities</p> <p>Proposed Amended Rule 223 will seek additional emission reductions from large confined animal facilities by lowering the applicability threshold.</p> <p style="text-align: center;"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
224	<p>Incentives for Super-Compliant Technologies</p> <p>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.</p> <p style="text-align: center;"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
416	<p>Odors from Kitchen Grease Processing</p> <p>Proposed Rule 416 will reduce 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.</p> <p style="text-align: center;"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other

2017 MASTER CALENDAR
2017 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
430	<p>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.</p> <p style="text-align: center;"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
1106 1106.1	<p>Marine Coating Operations Pleasure Craft Coating Operations (This item was previously submitted to the Board, but rejected. It will be brought back for Board direction.) The proposed amendment is two-fold: first, Rule 1106.1 is proposed to be rescinded and second, Rule 1106 would subsume the requirements of 1106.1, and revise VOC content limits for pretreatment wash primers, antenna, repair and maintenance thermoplastic, inorganic zinc, and specialty marking coatings in order to align limits with U.S. EPA Control Techniques Guidelines and other California air districts, and add new categories for marine aluminum antifoulant, mist, nonskid and organic zinc coatings and marine deck primer sealant. The proposed amendment would also add provisions for pollution prevention measures, enhanced enforceability, and to promote clarity and consistency.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1107 ⁺	<p>Coating of Metal Parts and Products (CTS-02) Potential amendments to Rule 1107 would further reduce VOC emissions and improve rule clarity and enforceability.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
1111 1111.1	<p>Reduction of NOx Emissions from Natural Gas Fired, Fan-Type Central Furnaces Rule 1111 may be amended to address compliance challenges.</p> <p>Reduction of NOx Emissions from Natural Gas Fired Commercial Furnaces (CMB-01) Proposed Rule 1111.1 will establish equipment-specific nitrogen oxides emission limits and other requirements for the operation of commercial space heaters.</p> <p style="text-align: center;"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP

2017 MASTER CALENDAR
2017 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1113	<p>Architectural Coatings</p> <p>Depending on the final recommendations of the tBac white paper and the actions of the Scientific Review Panel for the Office of Environmental Health Hazard Assessment (OEHHA), reassessment of the limited tBac exemption in the Rule will occur.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1123 ⁺	<p>Refinery Process Turnarounds (MCS-03)</p> <p>Proposed amendments will implement Control Measure MSC-03 of the 2007 AQMP by establishing procedures that better quantify emission impacts from start-up, shutdown or turnaround activities.</p> <p style="text-align: center;"><i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
1135	<p>Emissions of Oxides of Nitrogen from Electric Power Generating Systems</p> <p>At the December 4, 2015 Board meeting, Rule 2001 - Applicability was amended, allowing for an off-ramp from the NOx RECLAIM program for electricity generating facilities (EGF) operating at Best Available Control Technology (BACT) or Best Available Retrofit Control Technology (BARCT) NOx emission levels. Any EGF that opts out of the NOx RECLAIM program would need to comply with the proposed amendments to Rule 1135 – Emissions of Oxides of Nitrogen from Electric Power Generating Systems. The primary purpose of these proposed amendments is for an EGF facility to maintain compliance with NOx RECLAIM emission limits; an EGF owner or operator would need to comply with the newly developed Rule 1135 source-specific requirements no later than three years after approval of their Rule 2001 opt-out plan.</p> <p style="text-align: center;"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1136 ^{*,+}	<p>Wood Products Coatings (CTS-02)</p> <p>Amendments may be proposed to existing rule limits and other provisions.</p>	AQMP
1450 [*]	<p>Control of Methylene Chloride Emissions</p> <p>The proposed rule is to reduce exposure to methylene chloride from furniture stripping, remove potential regulatory loopholes, achieve emission reductions where possible and cost effective, include reporting requirements, and clarify the rule language to improve consistency with other SCAQMD VOC rules.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Toxics

2017 MASTER CALENDAR
2017 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1142	<p>Marine Tank Vessel Operations Revisions to Rule 1142 are proposed to address VOC emissions from marine tank vessel operations and provide clarifications. <i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1146, 1146.1, 1146.2 ^{*,+}	<p>Emissions of Oxides of Nitrogen Amendments to Rules 1146, 1146.1, and 1146.2 may be necessary to respond to advancements in ultra-low NOx burner technology and selective catalytic reduction (SCR) applicability. <i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1148.1 1148.2	<p>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. <i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1150.1	<p>Control of Gaseous Emissions from Municipal Solid Waste Landfills Proposed amendments will address U.S. EPA revisions to the Standards of Performance for Municipal Solid Waste Landfills (NSPS) and Existing Guidelines and Compliance Timelines (EG) for Municipal Solid Waste Landfills, as well as CARB GHG requirements. <i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1151	<p>Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations Depending on the final recommendations of the tBac white paper and the actions of the Scientific Review Panel for the Office of Environmental Health Hazard Assessment (OEHHA), reassessment of the limited tBac exemption in the Rule will occur. <i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1173 ⁺	<p>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's oil and gas regulations. <i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other

2017 MASTER CALENDAR
2017 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1177 ⁺	<p>Liquefied Petroleum Gas Transfer and Dispensing (2012 AQMP FUG-02)</p> <p>Potential amendments may be proposed to include additional sources of emissions from the dispensing and transfer of LPG.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
1188 ⁺	<p>VOC Reductions from Vacuum Trucks (FUG-01)</p> <p>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.</p> <p style="text-align: center;"><i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
1190, 1191, 1192, 1193, 1194, 1195, 1196, & 1186.1	<p>Fleet Vehicle Requirements</p> <p>Amendments to Rule 1190 series fleet rules may be necessary to address implementation. In addition, the current fleet rules may be expanded to achieve additional air quality and air toxic benefits.</p> <p style="text-align: center;"><i>Dean Saito 909.396.2647 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1304.2	<p>California Public Utilities Commission Regulated Electrical Local Publicly Owned Electrical Utility Fee for Use of SO_x, PM₁₀ and NO_x Offsets</p>	Other
1304.3	<p>Local Publicly Owned Electrical Generating Facility Fee for Use of SO_x, PM₁₀ and NO_x Offsets</p> <p>Proposed Rules 1304.2 and 1304.3 would allow new greenfield facilities and additions to existing electrical generating facilities conditioned access to SCAQMD internal offset accounts for a fee, for subsequent funding of qualifying improvement projects consistent with the AQMP.</p> <p>Proposed Rule 1304.2 will provide offsets so that new, proposed and other existing electrical generating facilities can compete on a level playing field with existing generating facilities with utility steam boilers, and implement the State’s plan to maintain grid reliability.</p> <p>Proposed Rule 1304.3 will provide offsets so that new, proposed and other existing electrical generating facilities run by local municipalities can meet the electricity reliability needs of their customers.</p> <p style="text-align: center;"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other

2017 MASTER CALENDAR
2017 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
1470*	<p>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 engine emissions located near sensitive receptors such as schools, preschools, daycare centers and health care facilities. Staff is also considering amendments to minimize use of stationary diesel back-up engines that may include use of alternative power sources that are substantially less polluting.</p> <p style="text-align: center;"><i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Toxics
1902	<p>Transportation Conformity Amendments to Rule 1902 may be necessary to bring the District's Transportation Conformity rule in line with current U.S. EPA requirements.</p> <p style="text-align: center;"><i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1905	<p>Pollution Controls for Automotive Tunnel Vents This proposed rule would address emissions from proposed roadway tunnel projects that could have air quality impacts.</p> <p style="text-align: center;"><i>Ian MacMillan 909.396.3244 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
2202	<p>On-Road Motor Vehicle Mitigation Options Rule 2202 will be amended to enhance emission reductions obtained from the Employee Commute Reduction Program (ECRP) rule option.</p> <p style="text-align: center;"><i>Carol Gomez 909.396.3264 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
Reg. XVI	<p>Mobile Source Offset Programs Amendments to various Regulation XVI rules will be proposed to address the recent U.S. EPA proposed disapproval of such rules including Rule 1610.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Wong 909.396.3176</i></p>	Other
Reg. XVII	<p>Prevention of Significant Deterioration Proposed amendments to Regulation XVII will align the SCAQMD's Prevention of Significant Deterioration program with federal requirements.</p> <p style="text-align: center;"><i>Carol Gomez 909.396.3264 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other

2017 MASTER CALENDAR
2017 To-Be-Determined (continued)

To-Be-Determined	Title and Description	Type of Rulemaking
Reg. XXIII	<p>Emissions Growth Management of Various Emissions Sources Regulation XXIII will contain rules related to emissions growth management of various emission sources including, but not limited to, new or redevelopment projects and other sources where criteria pollutant emissions associated with the region’s growth may cause or exacerbate exceedance of an air quality standard. Proposed rule(s) will implement the 2007 AQMP Control Measure EGM-01 – Emission Reductions from New or Redevelopment Projects and potential implementation of EGM-01 in the 2016 AQMP. Regulation XXIII may include other sources as provided in the Final 2016 AQMP to be submitted to U.S. EPA.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
Reg. XXV	<p>On-Road and Off-Road Mobile Source Credit Generation Programs 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 affected by the AQMP's Facility-Based Measures.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	AQMP
Reg. XXVII	<p>Climate Change Changes may be needed to Regulation XXVII to add or update protocols for GHG reductions, and other changes.</p> <p style="text-align: center;"><i>Philip Fine 909.396.2239 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other

**2017 MASTER CALENDAR
2017 To-Be-Determined (continued)**

To-Be-Determined	Title and Description	Type of Rulemaking
Reg. II, IV, XI, XIII, XIV, XX, XXX and XXXV Rules	Various rule amendments may be needed to meet the requirements of state and federal laws, implement OEHHA revised risk assessment guidance, address variance issues/ technology-forcing limits, to abate a substantial endangerment to public health or welfare, 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, 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.	Other

**2018
First Quarter of 2018**

To-Be-Determined	Title and Description	Type of Rulemaking
415*	<p>Odors from Animal Rendering Facilities</p> <p>Proposed Rule 415 will establish requirements to reduce odors created during animal rendering operations. The proposed rule will establish Best Management Practices, and will consider enclosure, odor control requirements for the receipt and processing of rendering material and wastewater, and possibly requirements for an Odor Mitigation Plan.</p> <p align="center"><i>Tracy Goss 909.396.3106 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other
1118.1	<p>Control of Emissions from Non-Refinery Flares</p> <p>Proposed Rule 1118.1 will seek to reduce emissions from flaring at non-refinery facilities, including alternate uses of gases. The rule would require the installation of newer flares implementing Best Available Control Technology at sources such as landfills, wastewater treatment plants, and oil and gas production facilities. Alternate uses of flare gas would be encouraged, especially for facilities that, for example, would clean it for use as a transportation fuel, process it to become pipeline-quality dry natural gas, or direct it to equipment that can convert its energy into power and/or heat.</p> <p align="center"><i>Michael Krause 909.396.2706 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other

2018 (continued)
Second Quarter of 2018

To-Be-Determined	Title and Description	Type of Rulemaking
1435	<p>Control of Emissions from Metal Heat Treating Processes Proposed Rule 1435 would establish requirements to reduce metal particulate emissions from heat treating processes.</p> <p style="text-align: center;"><i>Susan Nakamura 909.396.3105 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Toxics

Fourth Quarter of 2018

To-Be-Determined	Title and Description	Type of Rulemaking
Reg. IX Reg. X	<p>Standards of Performance for New Stationary Sources National Emission Standards for Hazardous Air Pollutants</p> <p>Amendments to Regulations IX and X are periodically made to incorporate by reference new or amended federal performance 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.</p> <p style="text-align: center;"><i>Carol Gomez 909.396.3264 CEQA and Socio: Jillian Wong 909.396.3176</i></p>	Other

BOARD MEETING DATE: September 1, 2017

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 14, 2017, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Natri
Executive Officer

JCM: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 1, 2017 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
Website Evaluation & Improvements	Conduct a detailed review of the SCAQMD website to identify improvements/enhancements that can further site usability and implement items approved by Administrative Committee; improvements include new custom calendar and changes to navigation and content organization	\$117,475	<ul style="list-style-type: none"> • Calendar development • Home page development • Development of master pages and widgets • Beta site set up on SCAQMD server • Content migration completed • Improved site deployed 	<ul style="list-style-type: none"> • Three months of site maintenance
Implementation of Enterprise Geographic Information System (EGIS)	Support accomplishment of the agency's mission through the effective and cost efficient implementation of Enterprise GIS and related technologies	\$173,255	<ul style="list-style-type: none"> • Board approved purchase of recommended hardware and software • Formed SCAQMD EGIS Governance/Working Group • Created EGIS Governance/Working Group Charter 	<ul style="list-style-type: none"> • Develop prioritized project list and schedule based on the EGIS Implementation Plan • Create agency-wide catalog of GIS software and staff resources • Develop an Enterprise GIS education and training program

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permitting Systems Automation	<ul style="list-style-type: none"> • New Web Application Development project to automate 400A Form Filing process • New Web Application Development project to automate processing of Dry Cleaner, Gas Station, and Spray Booth applications • Bay Area Software Evaluation - Assist Permitting Systems staff in assessment of Bay Area software solution for use by SCAQMD and public 	<p>\$300,000</p> <p>\$350,000</p> <p>To be determined</p>	<ul style="list-style-type: none"> • 400A Filing System application development complete; application staged and ready for deployment • Board approved \$100,000 additional funding for Phase 1 modifications and Phase 2 startup • Dry Cleaner, Gas Station and Automotive Spray Booth module development complete; application staged and ready for deployment • Board approved \$100,000 additional funding for Phase 1 modifications and Phase 2 startup • Received test account from Bay Area to access demo site and experiment with BAAQMD online permit processing tools 	<ul style="list-style-type: none"> • Phase 1 post deployment modifications and enhancements. • Phase 2 detailed planning and business process model development • Phase 1 post deployment modifications and enhancements • Phase 2 detailed planning and business model development • Complete initial review of Internal Dashboard and Customer Service Portals; need test facility from BAAQMD to continue testing
Information Technology Review	<ul style="list-style-type: none"> • RFP for Information Technology Review to help determine opportunities for hardware, system, and software modernization 	<p>\$75,000</p>	<ul style="list-style-type: none"> • Released RFP December 2, 2016 • Contract awarded March 3, 2017 and executed in June 	<ul style="list-style-type: none"> • Task 1: Develop, review scope, deliver work plan, and start implementation

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permit Dashboard Statistics	<ul style="list-style-type: none"> Detailed: New Web Application to allow engineers to update intermediate status of applications, and modification of FIND or other GIS application to display updated status to applicant 	Costs unbudgeted, to be determined after requirements are known	Initial requirements meeting Aug. 2016; staff identifying and finalizing intermediate statuses, method of data capture, and other user requirements	<ul style="list-style-type: none"> Continued biweekly follow-up to obtain user requirements needed for design and development work
Agenda Tracking System Replacement	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Released RFP December 4, 2015 Awarded contract April 1, 2016 	<ul style="list-style-type: none"> Complete implementation October 2017
Replace Your Ride	<ul style="list-style-type: none"> New Web Application to allow residents to apply for incentives to purchase newer, less-polluting vehicles 	\$175,000	<ul style="list-style-type: none"> Phase 1 development complete. Application fully deployed and in production 	<ul style="list-style-type: none"> Phase 2 Administrator Module development in progress
Emission Reporting System	<ul style="list-style-type: none"> Upgrade outdated modem-based emission reporting system to allow internet-based reporting with up-to-date tools and methodology 	\$242,000	<ul style="list-style-type: none"> Detailed planning and architecture sessions completed Approved by Board March 3, 2017 	<ul style="list-style-type: none"> Modified scope of work pending RECLAIM dismantling planning

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Air Quality Index Rewrite and Migration	<ul style="list-style-type: none"> Develop new Web Service and/or Web API to migrate Air Quality Index function from FORTRAN computer to STA's data management system 	\$65,000	<ul style="list-style-type: none"> AQI Calculation Web Service and Hourly Update development work complete, staged and ready for deployment 	<ul style="list-style-type: none"> Deployment pending final user buyoff

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 19

REPORT: FY 2016-17 Contract Activity

SYNOPSIS: This report lists the number of contracts let during FY 2016-17, the respective dollar amounts, award type, and the authorized contract signatory for the SCAQMD. This report includes the data provided in the March 2017 report covering contract activity for the first six months of FY 2016-17.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

MBO:DH:EA:lg

Background

The Board's Procurement Policy and Procedures requires staff to provide semi-annual reports to the Board on contract activity. This 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 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

Of the 685 contracts and modifications (including terminations) issued during this period, New Awards accounted for 379, Other accounted for 27, Sponsorships accounted for 39, and Modifications accounted for 223. The total value for New Awards was \$144,789,530.85. Of that amount, \$105,657,178.00 or 73 percent was awarded through the competitive process. The total value of all contracts and amendments for this period was \$164,810,945.06 with 375 contracts and amendments totaling \$162,883,360.45 approved by the Board and 293 contracts and amendments totaling \$3,322,264.46 approved by the Executive Officer. This does not include modifications for termination with partial work or no work completed which is addressed below. Of this latter amount, \$888,806.82 representing 26 contracts and modifications was for Board Member Assistant contracts as approved by the Board's Administrative Committee; \$1,240,874.85 representing 51 contracts was sole sourced in the areas of technical consulting (\$629,270.00), litigation/legal services (\$359,695.00), and miscellaneous expenses to support legislation travel, clean air events and lease of alternative fuel vehicles (\$251,909.85); \$397,785.00 representing 39 contracts was for sponsorships in advanced technologies and community and business outreach; and \$625,881.76 representing 168 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 17 during this period and de-obligated a total of \$5,055,631.48.

CONTRACT CATEGORY	NUMBER	AMOUNT
NEW AWARDS	379	\$144,789,530.85
OTHER	27	\$899,338.36
SPONSORSHIPS	39	\$397,785.00
MODIFICATIONS	223	\$18,724,290.85
TERMINATIONS	17	-\$5,055,631.48

Attachment

Contract Activity Report for the period July 1, 2016 through June 30, 2017.

**South Coast Air Quality Management District
Contract Activity Report
July 1, 2016 - June 30, 2017**

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	C16041	63	UPGRADE HYDROGEN FUELING INFRASTRUCTURE IN TORRANCE	EQUILON ENTERPRISES LLC	\$2,476,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16175	32	REPLACEMENT OF 1 OFF-ROAD VEHICLE	SOUTHERN CALIFORNIA LANDSCAPE SUPPLY LLC	\$216,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16180	32	REPLACEMENT OF 3 OFF-ROAD VEHICLES	SHINKLE & SONS GREENHOUSES INC	\$101,927.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16197	32,80	REPOWER 3 OFF-ROAD VEHICLES	WILLIAMS HEAVY EQUIPMENT RENTALS INC	\$167,133.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C16248	01	ELEVATOR SERVICE AND PREVENTATIVE MAINTENANCE	THYSSENKRUPP ELEVATOR CORP	\$108,468.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16264	32,17	REPOWER 2 MAIN ENGINES ON 1 MARINE VESSEL	FRESH ONE, LLC	\$137,309.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16278	32,17	REPOWER 1 MAIN ENGINE ON 1 MARINE VESSEL	ALIAKSANDR KIRYCHENKA	\$113,900.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16280	81	PROP 1B TRUCK REPLACEMENT PROGRAM	F & E TRUCKING CORP.	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16281	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ECHO TRUCKING INC.	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16282	81	PROP 1B TRUCK REPLACEMENT PROGRAM	BLANCA'S TRUCKING INC.	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16283	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ARSS TRUCKING	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16284	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CARLOS ROBERTO GOMEZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16285	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ALEX MANUEL CHACON GARCIA	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16287	81	PROP 1B TRUCK REPLACEMENT PROGRAM	AJJ TRANSPORT INC	\$60,000.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16288	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JORGE B. QUIROA	\$45,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16289	81	PROP 1B TRUCK REPLACEMENT PROGRAM	HENRY JAMES CHAVEZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16291	81	PROP 1B TRUCK REPLACEMENT PROGRAM	LOWE MATERIALS TRANSPORT	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16293	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JUAN CARLOS HERNANDEZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16294	81	PROP 1B TRUCK REPLACEMENT PROGRAM	YOUNGMAN SA	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16295	81	PROP 1B TRUCK REPLACEMENT PROGRAM	RAMON MEDINA	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16296	81	PROP 1B TRUCK REPLACEMENT PROGRAM	RICARDO A. SAGASTUME	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16297	81	PROP 1B TRUCK REPLACEMENT PROGRAM	TUBULAR STEEL INC	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16298	81	PROP 1B TRUCK REPLACEMENT PROGRAM	RUBEN RANGEL	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16299	81	PROP 1B TRUCK REPLACEMENT PROGRAM	THREE PEAKS CORP	\$45,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16300	81	PROP 1B TRUCK REPLACEMENT PROGRAM	NUEVA VISION TRUCKING INC.	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16303	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JORGE ALBERTO HERNANDEZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16304	81	PROP 1B TRUCK REPLACEMENT PROGRAM	BLUE ROAD TRANSPORT, INC.	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16306	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JOE E RUIZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16307	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JOSE H. ISLAS	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16308	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FERNANDO RIVERA OLIVARES	\$60,000.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16310	81	PROP 1B TRUCK REPLACEMENT PROGRAM	MARVIN J DELCID	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16311	81	PROP 1B TRUCK REPLACEMENT PROGRAM	GERSON E SALAZAR	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16312	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JUAN M. CORPUS	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16315	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ALDO DELCID AGUILAR	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16317	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CJ TRUCK LINES INC.	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16318	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JIMMY D MARSHALL	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16319	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ORLANDO ANDRADE	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16321	81	PROP 1B TRUCK REPLACEMENT PROGRAM	MARCO GONZALEZ	\$45,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16323	81	PROP 1B TRUCK REPLACEMENT PROGRAM	WILSON BADIOS	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16324	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ELIEZER TRUCKING	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16325	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CARLOS FLORES GARCIA	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16326	81	PROP 1B TRUCK REPLACEMENT PROGRAM	INTERNATIONAL EXPORT INC.	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16328	81	PROP 1B TRUCK REPLACEMENT PROGRAM	TRACEY POTTER	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16329	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FRANCISCO J. TRUJILLO	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16340	81	PROP 1B TRUCK REPLACEMENT PROGRAM	BRITHINEE ELECTRIC	\$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16341	81	PROP 1B TRUCK REPLACEMENT PROGRAM	MAXLINK LOGISTICS, INC.	\$120,000.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16346	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ALBERTO CORPUS	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16347	81	PROP 1B TRUCK REPLACEMENT PROGRAM	DAVID VELASCO TRUCKING	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16349	27	REPOWER OF 2 MAIN ENGINES OF A MARINE VESSEL	JAMES J SIMMERMAN	\$145,350.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16350	27	REPOWER OF 2 MAIN ENGINES OF A MARINE VESSEL	PHILIP HUYNH	\$181,900.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16352	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ALBERTO MORALES CRUZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16353	81	PROP 1B TRUCK REPLACEMENT PROGRAM	RODOLFO HERNANDEZ SANCHEZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16354	81	PROP 1B TRUCK REPLACEMENT PROGRAM	EFRAIN LARA	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16355	81	PROP 1B TRUCK REPLACEMENT PROGRAM	RAFAEL ZERMENO	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16356	81	PROP 1B TRUCK REPLACEMENT PROGRAM	LUIS MIDENCE	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16358	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ANTELOPE LOGISTICS, INC.	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16360	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CONRAD NOVACK	\$45,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16362	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JORGE G. ORDAZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16368	81	PROP 1B TRUCK REPLACEMENT PROGRAM	MANUEL PORFIRIO	\$45,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16370	81	PROP 1B TRUCK REPLACEMENT PROGRAM	RUBEN LOERA JR.	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16371	81	PROP 1B TRUCK REPLACEMENT PROGRAM	EBOW ABANYIE	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16372	81	PROP 1B TRUCK REPLACEMENT PROGRAM	SAND MATERIALS & AGGREGATE SALES INC	\$120,000.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16373	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JOAQUIN MOREIRA	\$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16374	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CYRUS BEHROSTAGHi	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16377	32,17	REPLACE 2 OFF-ROAD VEHICLES	SAGE GREEN, LLC	\$537,920.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16379	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CLOVIS GONZALES	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16380	81	PROP 1B TRUCK REPLACEMENT PROGRAM	LUIS A MARTINEZ	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16381	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JJJA TRUCKING GP	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16382	32	REPOWER 1 OFF-ROAD VEHICLE	RALPH D MITZEL INC	\$169,644.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16385	32,17	REPLACEMENT OF 5 OFF-ROAD VEHICLES	RWP TRANSFER INC.	\$1,027,601.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16390	81	PROP 1B TRUCK REPLACEMENT PROGRAM- OPERATION ONLY	DARGUS LEASING CORP.	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16395	81	PROP 1B TRUCK REPLACEMENT PROGRAM- OPERATION ONLY	FRANCISCO JAVIER LEAN GONZALEZ	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16396	32	REPLACEMENT OF 1 OFF-ROAD VEHICLE AND REPOWER OF 1 OFF-ROAD VEHICLE	TINA MCMINN EQUIPMENT RENTALS, INC.	\$1,141,353.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C16399	01	LANDSCAPE AND TREE MAINTENANCE SERVICES	SO CAL LAND MAINTENANCE INC	\$182,821.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16401	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ALL SEASONS HAY COMPANY	\$60,000.00	
20	MEDIA OFFICE	C17023	36	MEDIA, ADVERTISING AND PUBLIC OUTREACH CAMPAIGN FOR CHECK BEFORE YOU BURN PROGRAM	WESTBOUND COMMUNICATIONS INC	\$246,000.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17024	27	PROVIDE UP TO 3,000 ELECTRIC POWERED LAWN MOWERS FOR THE LAWN MOWER EXCHANGE EVENTS FOR THE RESIDENTS OF THE SOUTH COAST AIR BASIN	CHEVRON NORTH AMERICA, INC	\$145,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17025	27	SCRAP GASOLINE LAWN MOWERS AFTER DRAINING THE FUEL SAFELY AT THE LAWN MOWER EXCHANGE SITES AND PROVIDE TRANSPORTATION FROM THE SITES	DICK'S AUTO WRECKERS	\$36,700.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17026	27	PROVIDE UP TO 3,000 ELECTRIC POWERED LAWN MOWERS FOR THE LAWN MOWER EXCHANGE EVENTS FOR RESIDENTS OF THE SOUTH COAST BASIN	BLACK & DECKER (US) INC	\$145,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17027	27	PROVIDE UP TO 3,000 ELECTRIC POWERED LAWN MOWERS FOR THE LAWN MOWER EXCHANGE EVENTS FOR RESIDENTS OF THE SOUTH COAST AIR BASIN	THE GREENSTATION	\$145,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17028	27	PROVIDE SUPPORT SERVICES AT THE LAWN MOWER EXCHANGE EVENTS	PARKING CONCEPTS INC	\$20,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17037	31	PROVIDE TECHNICAL ASSISTANCE WITH ALTERNATIVE FUELS, ELECTRIC VEHICLES, CHARGING AND FUELING INFRASTRUCTURE AND RENEWABLE ENERGY	CLEAN FUEL CONNECTION INC	\$50,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17042	01	DEFERRED COMP PLAN CONS SERVS	BENEFIT FUNDING SERVICES GROUP	\$90,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17044	80	PROVIDE TECHNICAL ASSISTANCE, IMPLEMENTATION AND OUTREACH SUPPORT FOR CARL MOYER PROGRAM	CLEAN FUEL CONNECTION INC	\$175,000.00	
27	INFORMATION MANAGEMENT	C17048	01	ONBASE AGENDA TRACKING SYSTEM MIGRATION	HYLAND SOFTWARE, INC.	\$84,700.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17049	58	TECHNICAL ASSISTANCE, IMPLEMENTATION AND OUTREACH SUPPORT FOR AB1318 PROGRAM	CLEAN FUEL CONNECTION INC	\$50,000.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17050	81	PROVIDE TECHNICAL ASSISTANCE, IMPLEMENTATION AND OUTREACH SUPPORT FOR PROP 1B GOODS MOVEMENT PROGRAM	CLEAN FUEL CONNECTION INC	\$235,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17063	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CALPORTLAND COMPANY	\$12,730,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17064	81	PROP 1B TRUCK REPLACEMENT PROGRAM	PENSKE TRUCK LEASING CO LP	\$2,335,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17065	01	EV INFRASTRUCTURE INSTALLER	CLEAN FUEL CONNECTION INC	\$805,219.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17069	81	PROP 1B TRUCK REPLACEMENT PROGRAM	WILSON R. LAZARO	\$65,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17070	81	PROP 1B TRUCK REPLACEMENT PROGRAM	MATHESON POSTAL SERVICES INC	\$780,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17077	01	EXECUTIVE SEARCH AND RECRUITMENT SERVICES	CPS HUMAN RESOURCE CONSULTING	\$22,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17097	31	TECHNICAL ASSISTANCE WITH ALTERNATIVE FUELS AND FUELING INFRASTRUCTURE, EMISSIONS ANALYSIS AND ON-ROAD SOURCES	GLADSTEIN, NEANDROSS & ASSOCIATES	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17098	81	TECHNICAL ASSISTANCE, IMPLEMENTATION & OUTREACH SUPPORT FOR PROP 1B PROGRAM	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	\$105,350.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17109	32	REPOWER 2 MAIN ENGINES ON 1 MARINE VESSEL	CATALINA SEA RANCH, LLC	\$310,250.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17110	32	REPOWER OF 1 MAIN ENGINE OF A MARINE VESSEL	DONALD KREBS	\$145,382.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17112	32	REPOWER OF 1 MAIN & 1 AUXILIARY ENGINES OF A MARINE VESSEL	ANTHONY MAKUL	\$179,844.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17114	01	APPLICATION OF NEXT GENERATION AIR MONITORING METHODS TO CHARACTERIZE HAZARDOUS AIR POLLUTANT EMISSIONS FROM REFINERIES AND ASSESS POTENTIAL IMPACTS TO SURROUNDING COMMUNITIES	FLUXSENSE AB	\$280,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17115	32	REPOWER OF TWO MAIN ENGINES AND ONE AUXILIARY ENGINE OF A MARINE VESSEL	ISURUS, LLC	\$647,309.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17126	32	REPOWER 1 MAIN ENGINE ON 1 MARINE VESSEL	RODGER HEALY	\$170,009.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17127	32	REPOWER OF TWO MAIN ENGINES OF A MARINE VESSEL	CATALINA CLASSIC CRUISES	\$391,458.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17129	32	REPOWER OF EIGHT MAIN & FOUR AUXILIARY ENGINES OF THREE MARINE VESSELS	PACIFIC TUGBOAT SERVICES	\$957,976.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17133	32	REPOWER OF TWO MAIN ENGINES OF A MARINE VESSEL	FREELANCE SPORTFISHING, INC.	\$263,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17134	32	REPOWER OF TWO MAIN ENGINES OF A MARINE VESSEL	OCEAN DEFENDERS ALLIANCE	\$289,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17135	32	REPOWER OF ONE MAIN AND TWO AUXILIARY ENGINES OF A MARINE VESSEL	THOMAS T NGUYEN	\$308,550.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17136	32	REPOWER OF TWO MAIN ENGINES OF A MARINE VESSEL	VENITA RAE MCLAY	\$260,100.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17137	32	REPOWER OF TWO MAIN ENGINES ON A MARINE VESSEL	GHEORGHE DAVID	\$133,450.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17138	32	REPOWER OF ONE MAIN ENGINE OF A MARINE VESSEL	JOHN S RICE	\$112,018.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17139	32	REPOWER OF TWO MAIN ENGINES OF A MARINE VESSEL	SEAFLEET ONE LLC	\$229,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17140	32	REPOWER 1 MARINE VESSEL	JOE WU	\$80,518.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17141	32	REPOWER 2 MAIN ENGINES IN 1 MARINE VESSEL	SEA ESCIENCE & TECHNOLOGY ADVANCEMENTCHARTERS	\$243,950.00	

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DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17143	32	REPOWER FOUR MAIN ENGINES ON TWO MARINE VESSELS	BONGOS SPORTFISHING LLC	\$442,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17144	32	REPOWER OF TWO MAIN ENGINES OF A MARINE VESSEL	RICK HENDERSON	\$149,659.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17145	32	REPOWER OF 2 MAIN ENGINES OF A MARINE VESSEL	LA SALA DE JUNTAS	\$601,579.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17146	32	REPOWER ONE MAIN ENGINE OF A MARINE VESSEL	TOAN D. NGUYEN	\$133,450.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17147	32	REPOWER TWO MAIN AND TWO AUXILIARY ENGINES ON ONE MARINE VESSEL	MY BOAT COMPANIES INC	\$306,850.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17148	32	REPOWER OF ONE MAIN ENGINE OF A MARINE VESSEL	DAVID HAWORTH DBA F/V BARBARA H INC.	\$224,239.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17149	32	REPOWER OF TWO MAIN ENGINE OF A MARINE VESSEL	ADAM OLSON	\$175,018.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17150	32	REPOWER OF ONE MAIN ENGINE OF A MARINE VESSEL	TIMOTHY PERGUSON	\$153,113.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17151	32	REPOWER 2 MAIN ENGINES ON 1 MARINE VESSEL	ISLAND CHARTERS, INC	\$358,018.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17152	32	REPOWER ONE MAIN ENGINE OF A MARINE VESSEL	SOUTHWEST MARINE RESOURCES, LLC	\$85,392.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17157	32	REPOWER ONE MAIN ENGINE ON A MARINE VESSEL	DIVE N' SURF, INC	\$120,700.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17158	32	REPOWER ONE MAIN ENGINE OF A MARINE VESSEL	JOHN MELLO	\$79,921.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17159	32	REPOWER ONE MAIN ENGINE AND ONE AUXILIARY ENGINE ON A MARINE VESSEL	SARDINA FISHING L.L.C	\$156,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17160	32	REPOWER TWO MAIN ENGINES OF A MARINE VESSEL	EASTER B CHARTERS, INC	\$248,200.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17161	32	REPOWER OF 1 MAIN ENGINE OF A MARINE VESSEL	CRYSTAL PACIFIC, LLC	\$109,811.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17162	32	REPOWER ONE MAIN ENGINE OF A MARINE VESSEL	EDWARD HERNANDEZ	\$85,987.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17163	32	REPOWER 1 MAIN ENGINE AND 1 AUXILIARY ENGINE ON 1 MARINE VESSEL	KELLY FUKUSHIMA	\$169,325.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17165	32	REPOWER 2 MAIN ENGINES IN 1 MARINE VESSEL	AQUARIUM OF THE PACIFIC	\$158,091.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17166	32	REPOWER 2 MAIN ENGINES AND 2 AUXILIARY ENGINES ON 1 MARINE VESSEL	SOUTHERN CALIFORNIA MARINE INSTITUTE	\$311,950.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17169	32	REPOWER 2 MAIN ENGINES ON A MARINE VESSEL	MATTHEW POTTER	\$249,050.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17170	32	REPOWER ONE MAIN ENGINE OF A MARINE VESSEL	DAVID POWELL	\$132,779.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17171	32	REPOWER 1 MAIN ENGINE ON 1 MARINE VESSEL	MICHAEL CASSIDY	\$79,921.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17172	81	PROP 1B TRUCK REPLACEMENT PROGRAM	MOUNTAIN VALLEY EXPRESS CO INC	\$900,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17173	81	PROP 1B TRUCK REPLACEMENT PROGRAM - OPERATION ONLY	JNS TRANSPORT	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17176	32	REPOWER ONE MAIN AND THREE AUXILIARY ENGINES OF A MARINE VESSEL	PACIFIC HORIZON FISHING LLC	\$663,527.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17177	32	REPOWER ONE MAIN ENGINE IN ONE MARINE VESSEL	MATTHEW MEISTRELL	\$150,450.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17181	32	REPLACEMENT OF ONE OFF-ROAD AGRICULTURAL EQUIPMENT	BAUTISCIENCE & TECHNOLOGY ADVANCEMENTCREEK RANCHES, INC	\$41,420.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17183	32	REPLACEMENT OF ONE OFF-ROAD EQUIPMENT	JORGE FUENTES TRUCKING	\$83,203.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17185	32	REPLACEMENT OF ONE OFF-ROAD AGRICULTURAL EQUIPMENT	PACIFIC DATE CORPORATION	\$68,231.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17189	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	DON BEAN RANCH	\$140,075.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17190	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	FUENTES BROS TRUCKING	\$76,193.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17191	32	REPLACE 1 OFF-ROAD AGRICULTURAL EQUIPMENT	DOMENIGONI BROTHERS RANCH LP	\$128,237.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17193	01	FIVE YEAR LEASE OF PHOTOCOPIERS FOR WALK- UP AND PRINT SHOP	SOCAL OFFICE TECHNOLOGIES	\$632,455.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17195	32	REPLACEMENT OF THREE OFF-ROAD AGRICULTURAL EQUIPMENT	SUNWEST FARMS LLC	\$343,248.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17196	32	REPLACEMENT OF 4 OFF-ROAD AGRICULTURAL EQUIPMENT	JUNIOR ENTERPRISES, LLC	\$544,755.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17198	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	DESERT CUSTOM FARMING INC.	\$135,224.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17199	32	REPLACEMENT OF 3-FOR-1 OFF-ROAD AGRICULTURAL EQUIPMENT	RANCHO MISSION VIEJO LLC	\$62,216.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17200	32	REPLACE 6 OFF-ROAD AGRICULTURAL VEHICLES	COTTONWOOD DAIRY	\$805,830.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17202	32	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	O & S HOLSTEINS LP	\$309,905.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17204	32	REPLACEMENT OF 1 OFF-ROAD VEHICLE	MILLER BLADES, INC.	\$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17205	32	REPLACEMENT OF 5 OFF-ROAD VEHICLES	T.E. ROBERTS, INC	\$516,627.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17208	32	REPLACE 1 OFF-ROAD AGRICULTURAL VEHICLE	VAN RYN FARMS	\$45,679.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17210	32	REPLACEMENT OF 1 OFF-ROAD EQUIPMENT	EVERGREEN RECYCLING INC	\$178,670.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17211	32	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL VEHICLE	SOUZA DAIRY	\$163,503.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17212	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	ORGANIC DEPOT LLC	\$1,633,215.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17218	80,32	REPLACE 9 OFF-ROAD AGRICULTURAL VEHICLES	AGRI-EMPIRE	\$1,450,227.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17220	32	REPLACE 7 OFF-ROAD AGRICULTURAL EQUIPMENT	WEST COAST TURF	\$305,235.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17221	32	REPOWER 3 OFF-ROAD VEHICLES	MBA GRADING & DEMOLITION, INC.	\$346,326.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17226	32	REPLACE 2 OFF-ROAD VEHICLES	M.H. UYEKAWA, INC	\$460,270.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17229	32	REPLACE 1 AGRICULTURAL VEHICLE	SUNNY SLOPE TREE FARM, INC	\$127,133.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17230	32	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	MARVO HOLSTEINS	\$131,774.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17231	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	C & R FARMS, INC	\$35,269.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17232	32	REPLACEMENT OF FIVE OFF-ROAD EQUIPMENT	FRIENDLY HILLS COUNTRY CLUB	\$224,113.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17233	81	PROP 1B TRUCK REPLACEMENT PROGRAM - OPERATION ONLY	HORIZON TRUCKING INC	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17234	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	WILLIAM KOOT DAIRY	\$31,159.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17236	81	PROP 1B TRUCK REPLACEMENT PROGRAM	FRESH LINK LOGISTICS LLC	\$550,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17238	32	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	OFFINGA AND SON DAIRY	\$483,354.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17239	32	REPOWER 1 OFF-ROAD VEHICLE	P. RILEY ENTERPRISES, INC.	\$122,930.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17241	32	REPLACEMENT OF THREE OFF-ROAD AGRICULTURAL EQUIPMENT	BRIAN SMITH DEVELOPMENT, INC.	\$237,522.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17242	32	REPLACEMENT OF 5 OFF-ROAD AGRICULTURAL EQUIPMENT	CLEVELAND FARMS, INC.	\$825,387.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17243	32	REPLACE 2 OFF-ROAD VEHICLES	BARRAZA & SONS HEAVY EQUIPMENTS, INC	\$93,427.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17245	31	IN-USE EMISSIONS TESTING AND FUEL USAGE PROFILE OF ON-ROAD HEAVY-DUTY VEHICLES	WEST VIRGINIA UNIVERSITY RESEARCH CORP	\$1,625,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17247	32	REPLACEMENT OF FOUR OFF-ROAD AGRICULTURAL EQUIPMENT	OOSTDAM DAIRY	\$294,206.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17248	32	REPOWER OF ONE MAIN ENGINE OF A MARINE VESSEL	JEFFREY S. PELTON	\$121,550.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17251	81	PROP 1B TRUCK REPLACEMENT PROGRAM	PDQ ENTERPRISES	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17252	81	PROP 1B TRUCK REPLACEMENT PROGRAM	MAYOR LOGISTICS, INC	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17253	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	LA QUINTA DATE GROWERS, L.P.	\$347,181.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17254	32	REPOWER OF ONE MAIN ENGINE OF A MARINE VESSEL	PAVEL BAKHTINE	\$98,600.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17255	32	REPLACE 6 OFF-ROAD AGRICULTURAL VEHICLES	AMAZING COACHELLA INC	\$455,829.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17258	32	REPLACEMENT OF 2 OFF-ROAD EQUIPMENT	TRENCH SHORING COMPANY	\$136,940.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17259	32	REPLACEMENT OF FOUR OFF-ROAD EQUIPMENT	A & I ROCK CO., INC.	\$243,587.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17260	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	RWP TRANSFER INC.	\$97,402.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17261	81	PROP 1B TRUCK REPLACEMENT PROGRAM - OPERATION ONLY	STAN ALLES TRANSPORT	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17265	32	REPLACEMENT OF TWO OFF-ROAD AGRICULTURAL EQUIPMENT	GLEN A. VAN DAM DBA VAN DAM DAIRY	\$277,227.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17266	01	EMPLOYEE AND LABOR RELATIONS LEGAL SERVICES	RENNE SLOAN HOTZMAN SAKAI, LLP	\$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17268	32	REPLACEMENT OF ONE OFF-ROAD AGRICULTURAL EQUIPMENT	DYT DAIRY	\$141,142.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17271	32	REPLACEMENT OF 2 OFF ROAD AGRICULTURAL EQUIPMENT	CM BACKHOE SERVICE	\$146,490.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17286	31	IN-USE EMISSIONS TESTING & FUEL USAGE PROFILE OF ON-ROAD HEAVY-DUTY VEHICLES	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$1,625,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17287	81	PROP 1B TRUCK REPLACEMENT PROGRAM - OPERATION ONLY	PR TRUCKING LLC	\$0.00	1

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17288	32,80	REPLACEMENT OF FOUR OFF-ROAD AGRICULTURAL EQUIPMENT	R&J HARINGA DAIRY	\$463,714.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17293	80	REPLACE 3 OFF-ROAD VEHICLES	MOUNTAIN TOP QUARRIES, LLC	\$684,710.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17294	32	REPLACE 2 AND REPOWER 2 OFF-ROAD VEHICLES	MCLAUGHLIN ENGINEERING & MINING	\$543,357.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17295	80	REPOWER TWO OFF-ROAD VEHICLES	HARBER COMPANIES, INC.	\$177,187.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17296	81	PROP 1B REPLACEMENT OF TEN LOCOMOTIVES	BNSF RAILWAY COMPANY	\$19,200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17320	32	REPOWER 2 MAIN ENGINES ON 1 MARINE VESSEL	SAN CLEMENTE SPORTFISHING, INC	\$205,700.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17330	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	SAGE GREEN, LLC	\$799,200.00	
04	FINANCE	C17335	01	SCAQMD INDEPENDENT AUDIT SERVICES	BCA WATSON RICE, LLP	\$161,778.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17336	31	CONDUCT EDUCATION OUTREACH FOR THE BASIN DC FAST CHARGING NETWORK PROJECT	THREE SQUARES INC.	\$64,183.00	
27	INFORMATION MANAGEMENT	C17339	01	INFORMATION TECHNOLOGY REVIEW	FOCAL POINT DATA RISK, LLC	\$75,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17342	81	PROP 1B TRUCK REPLACEMENT PROGRAM	AMERICA TRADING SERVICE INC.	\$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17348	81	PROP 1B TRUCK REPLACEMENT PROGRAM	NEW STAR FREIGHT, INC.	\$400,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17358	31	TECHNICAL ASSISTANCE WITH HEAVY-DUTY VEHICLE EMISSIONS TESTING, ANALYSES & ENGINE DEVELOPMENT	AEE SOLUTIONS LLC	\$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16219	33	PURCHASE 1 ELECTRIC SCHOOL BUS	LOS ANGELES UNIFIED SCHOOL DISTRICT	\$275,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16260	80	REPLACE 5 CNG TANKS ON SCHOOL BUSES	MONROVIA UNIFIED SCHOOL DISTRICT	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16271	80	REPLACE 1 PARTICULATE MATTER TRAP ON 1 SCHOOL BUS	FULLERTON JOINT UNION HIGH SCHOOL DIST	\$20,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16272	80	PURCHASE 2 PARTICULATE MATTER TRAPS ON 2 SCHOOL BUSES	HUNTINGTON BEACH UNIFIED SCHOOL DISTRICT	\$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16273	80	PURCHASE 2 PARTICULATE MATTER TRAPS FOR 2 SCHOOL BUSES	LA HABRA CITY SCHOOL DISTRICT	\$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16274	80	PURCHASE 1 PARTICULATE MATTER TRAP FOR 1 SCHOOL BUS	WALNUT VALLEY UNIFIED SCHOOL DISTRICT	\$20,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16336	80	REPLACE UP TO 2 CNG TANKS ON SCHOOL BUSES	BANNING UNIFIED SCHOOL DISTRICT	\$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16337	80	REPLACE 1 CNG TANK ON 1 SCHOOL BUS	ONTARIO-MONTCLAIR SCHOOL DISTRICT	\$20,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16364	80	REPLACE UP TO 4 CNG TANKS ON SCHOOL BUSES	JURUPA UNIFIED SCHOOL DISTRICT	\$80,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16365	80	REPLACE 18 CNG TANKS ON SCHOOL BUSES	GARDEN GROVE UNIFIED SCHOOL DISTRICT	\$360,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16400	80	REPLACE UP TO 5 CNG TANKS ON SCHOOL BUSES	EL MONTE UNION HIGH SCHOOL DISTRICT	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17052	80	REPLACE UP TO 10 CNG TANKS ON SCHOOL BUSES	LOS ANGELES UNIFIED SCHOOL DISTRICT	\$200,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17078	80	REPLACE 7 CNG TANKS ON SCHOOL BUSES	LOS ANGELES UNIFIED SCHOOL DISTRICT	\$140,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17117	80	REPLACE 13 CNG FUEL TANKS ON SCHOOL BUSES	LOS ANGELES UNIFIED SCHOOL DISTRICT	\$260,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17118	80	REPLACE 5 CNG FUEL TANKS ON SCHOOL BUSES	BELLFLOWER UNIFIED SCHOOL DISTRICT	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17120	80	REPLACE 2 CNG TANKS ON SCHOOL BUSES	TORRANCE UNIFIED SCHOOL DISTRICT	\$40,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17121	80	REPLACE 3 CNG TANKS ON SCHOOL BUSES	CHINO VALLEY UNIFIED SCHOOL DISTRICT	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17122	80	REPLACE 3 CNG FUEL TANKS ON SCHOOL BUSES	WALNUT VALLEY UNIFIED SCHOOL DISTRICT	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17123	80	REPLACE 1 CNG TANK ON SCHOOL BUS	MENIFEE UNIFIED SCHOOL DISTRICT	\$20,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17124	80	REPLACE 4 CNG TANKS ON SCHOOL BUSES	PLACENTIA-YORBA LINDA UNIFIED SCH DIST	\$80,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17178	80	REPLACE 3 CNG FUEL TANKS ON SCHOOL BUSES	ARCADIA UNIFIED SCHOOL DISTRICT	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17214	80	REPLACE 6 CNG TANKS ON SCHOOL BUSES	WEST COVINA UNIFIED SCHOOL DISTRICT	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17227	80	REPLACE 11 CNG TANKS ON SCHOOL BUSES	MONTEBELLO UNIFIED SCHOOL DISTRICT	\$220,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17263	80	REPLACE 6 CNG TANKS ON SCHOOL BUSES	MENIFEE UNIFIED SCHOOL DISTRICT	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17297	80	REPLACE 11 CNG TANKS ON SCHOOL BUSES	COLTON JOINT UNIFIED SCHOOL DISTRICT	\$220,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17299	80	REPLACE 6 CNG TANKS ON SCHOOL BUSES	DESERT SANDS UNIFIED SCHOOL DISTRICT	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G17301	80	REPLACE 1 CNG TANK ON 1 SCHOOL BUS	ALTA LOMA SCHOOL DISTRICT	\$20,000.00	
44	MSRC	ML14013	23	PURCHASE OF 14 HEAVY-DUTY NATURAL GAS VEHICLES	CITY OF LOS ANGELES	\$400,000.00	
44	MSRC	ML14069	23	INSTALL CNG STATION	CITY OF BEAUMONT	\$200,000.00	
44	MSRC	ML14070	23	RANCHO CUCAMONGA BICYCLE PROJECTS	CITY OF RANCHO CUCAMONGA	\$365,245.00	
44	MSRC	ML14094	23	YUCAIPA BICYCLE LANES	CITY OF YUCAIPA	\$84,795.00	
44	MSRC	ML16008	23	PURCHASE 4 MEDIUM DUTY AND 9 HEAVY DUTY CNG VEHICLES	CITY OF POMONA	\$310,000.00	
44	MSRC	ML16010	23	EXPAND CNG STATION AND INSTALL EV CHARGING STATIONS	CITY OF FULLERTON	\$370,500.00	
44	MSRC	ML16018	23	PURCHASE 2 MEDIUM-DUTY VEHICLES AND IMPLEMENT BICYCLE EDUCATION	CITY OF HERMOSA BEACH	\$29,520.00	
44	MSRC	ML16019	23	INSTALL EV CHARGING STATIONS	CITY OF LOS ANGELES	\$102,955.00	
44	MSRC	ML16021	23	INSTALL EV CHARGING INFRASTRUCTURE	CITY OF SANTA CLARITA	\$49,400.00	
44	MSRC	ML16022	23	PURCHASE 12 HEAVY-DUTY NATURAL GAS VEHICLES	DEPARTMENT OF WATER & POWER	\$360,000.00	

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44	MSRC	ML16028	23	ENHANCE EXISTING CLASS 1 BIKEWAY	CITY OF AZUSA	\$25,000.00	
44	MSRC	ML16032	23	IMPLEMENT FOOTHILL AND ALOSCIENCE & TECHNOLOGY ADVANCEMENT"COMPLETE STREETS" PROJECT	CITY OF AZUSA	\$474,925.00	
44	MSRC	ML16039	23	INSTALL EV CHARGING STATIONS	CITY OF TORRANCE	\$32,000.00	
44	MSRC	ML16040	23	INSTALL EV CHARGING STATIONS	CITY OF EASTVALE	\$110,000.00	
44	MSRC	ML16041	23	INSTALL EV CHARGING STATIONS	CITY OF MORENO VALLEY	\$20,000.00	
44	MSRC	ML16047	23	ENHANCE CLASS 1 BIKEWAY	CITY OF FONTANA	\$500,000.00	
44	MSRC	ML16052	23	INSTALL CLASS 1 BIKEWAY	CITY OF RANCHO CUCAMONGA	\$315,576.00	
44	MSRC	ML16058	23	PURCHASE 15 HEAVY-DUTY CNG VEHICLES AND INSTALL 17 EV CHARGING STATIONS	COUNTY OF LOS ANGELES	\$491,898.00	
44	MSRC	ML16064	23	IMPLEMENT "OPEN STREETS" EVENTS	COUNTY OF ORANGE	\$204,073.00	
44	MSRC	ML16066	23	IMPLEMENT ARTESIA BOULEVARD "OPEN STREETS" PROJECT	CITY OF LONG BEACH	\$75,050.00	
44	MSRC	ML16068	23	IMPLEMENT "OPEN STREETS" EVENT	COUNTY OF RIVERSIDE	\$171,648.00	
44	MSRC	ML16069	23	INSTALL EV CHARGING STATIONS	CITY OF WEST COVINA	\$54,199.00	
44	MSRC	ML16070	23	PURCHASE 3 HEAVY-DUTY CNG VEHICLES	CITY OF BEVERLY HILLS	\$90,000.00	
44	MSRC	ML16071	23	IMPLEMENT BOULDER AVENUE "COMPLETE STREETS" PROJECT	CITY OF HIGHLAND	\$264,500.00	
44	MSRC	ML16073	23	IMPLEMENT DOWNTOWN LONG BEACH "OPEN STREETS" PROJECT	CITY OF LONG BEACH	\$50,000.00	
44	MSRC	ML16074	23	INSTALL CNG STATION	CITY OF LA VERNE	\$365,000.00	
44	MSRC	ML16075	23	EXPAND CNG STATION AND MODIFY MAINTENANCE FACILITY	CITY OF SAN FERNANDO	\$354,000.00	
44	MSRC	ML16076	23	INSTALL EV CHARGING STATION	CITY OF SAN FERNANDO	\$100,000.00	
44	MSRC	MS14037	23	MODIFY MAINTENANCE FACILITY - CARSON	PENSKE TRUCK LEASING CO LP	\$75,000.00	
44	MSRC	MS14075	23	EXPAND CNG FUELING STATION AND MODIFY MAINTENANCE FACILITY	FULLERTON JOINT UNION HIGH SCHOOL DIST	\$300,000.00	
44	MSRC	MS14079	23	INSTALL LIMITED ACCESS CNG STATION	WASTE RESOURCES INC	\$100,000.00	

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44	MSRC	MS14092	23	EXPAND CNG STATION	WEST COVINA UNIFIED SCHOOL DISTRICT	\$124,000.00	
44	MSRC	MS16082	23	EXTEND FREEWAY SERVICE PATROL	RIVERSIDE COUNTY TRANSPORTATION COMM	\$590,759.00	
44	MSRC	MS16087	23	INSTALL LIMITED ACCESS CNG STATION	BURRTEC WASTE & RECYCLING SERVICES LLC	\$100,000.00	
44	MSRC	MS16088	23	EXPAND EXISTING CNG STATION	TRANSIT SYSTEMS UNLIMITED, INC.	\$17,000.00	
44	MSRC	MS16089	23	IMPLEMENT EXPRESS BUS SERVICE TO ANGEL STADIUM	ORANGE CO TRANSPORTATION AUTHORITY	\$128,500.00	
44	MSRC	MS16090	23	IMPLEMENT TRANSIT STATION IMPROVEMENTS	LOS ANGELES COUNTY METROPOLITAN	\$2,500,000.00	
44	MSRC	MS16091	23	SIGNAL SYNCHRONIZATION UPGRADES	SAN BERNARDINO ASSOCIATED GOVERNMENTS	\$1,000,000.00	
44	MSRC	MS16092	23	IMPLEMENT OPEN STREET EVENTS	SAN BERNARDINO ASSOCIATED GOVERNMENTS	\$250,000.00	
44	MSRC	MS16093	23	IMPLEMENT MOBILE TICKETING SYSTEM	ORANGE CO TRANSPORTATION AUTHORITY	\$1,553,657.00	
44	MSRC	MS16094	23	COMMUTER RAIL "FIRST MILE/LAST MILE" IMPROVEMENTS	RIVERSIDE COUNTY TRANSPORTATION COMM	\$1,909,241.00	
44	MSRC	MS16095	23	IMPLEMENT EXPRESS BUS SERVICE TO ORANGE COUNTY FAIR	ORANGE CO TRANSPORTATION AUTHORITY	\$694,645.00	
44	MSRC	MS16096	23	EV CHARGING STATIONS	SAN BERNARDINO ASSOCIATED GOVERNMENTS	\$450,000.00	
44	MSRC	MS16097	23	EXPAND CNG FUELING STATION AND MODIFY MAINTENANCE FACILITY	WALNUT VALLEY UNIFIED SCHOOL DISTRICT	\$250,000.00	

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44	MSRC	MS16099	23	IMPLEMENT SPECIAL BUS SERVICE TO LOS ANGELES COUNTY FAIR	FOOTHILL TRANSIT AGENCY	\$50,000.00	
44	MSRC	MS16102	23	INSTALL LIMITED ACCESS CNG SERVICES	NASA SERVICES, INC	\$100,000.00	
44	MSRC	MS16103	23	INSTALL A LIMITED ACCESS CNG FUELING STATION	ARROW SERVICES INC	\$100,000.00	
44	MSRC	MS16112	23	REPOWER 98 TRANSIT BUSES WITH NEAR-ZERO ENGINES	ORANGE CO TRANSPORTATION AUTHORITY	\$1,470,000.00	
44	MSRC	MS16113	23	RE-POWER 125 TRANSIT BUSES WITH NEAR-ZERO ENGINES	LOS ANGELES COUNTY METROPOLITAN	\$1,875,000.00	
44	MSRC	MS16115	23	RE-POWER 58 TRANSIT BUSES WITH NEAR-ZERO ENGINES	CITY OF SANTA MONICA	\$870,000.00	
44	MSRC	MS16116	23	PURCHASE ONE HEAVY-DUTY NEAR-ZERO VEHICLE	RIVERSIDE TRANSIT AGENCY	\$10,000.00	
44	MSRC	MS16117	23	EXPAND EXISTING NATURAL GAS STATION - WEST 5TH	OMNITRANS	\$175,000.00	
44	MSRC	MS16118	23	EXPAND EXISTING NATURAL GAS STATION - ARROW HIGHWAY	OMNITRANS	\$175,000.00	
44	MSRC	MS16119	23	INSTALL NEW NATURAL GAS STATION - I STREET	OMNITRANS	\$150,000.00	
44	MSRC	MS16120	23	PURCHASE 39 AND REPOWER 24 NEAR-ZERO CNG VEHICLES	OMNITRANS	\$945,000.00	
44	MSRC	MS18003	23	DESIGN, HOST, AND MAINTAIN MSRC WEBSITE	GEOGRAPHICS	\$56,953.00	
Subtotal						\$105,503,373.00	
Competitive-Executive Officer Approved							
27	INFORMATION MANAGEMENT	C17057	01	CONSOLIDATION OF MAPPING FUNCTIONS ON SCAQMD'S WEBSITE	PSOMAS	\$49,936.00	
04	FINANCE	C17213	01	PROVIDE INVESTMENT CONSULTING SERVICES TO SCAQMD	PFM ASSET MANAGEMENT LLC	\$69,000.00	

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08	LEGAL	C17264	01	EXPERT WITNESS IN EVALUATING THE HEALTH RISK POSED BY FACILITIES EMITTING AIR TOXICS INCLUDING HEXAVALENT CHROME	JOSEPH RICHARD LANDOLPH, JR.	\$10,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17269	01	PARKING DECK PLANTER AND TREE WELL IMPROVEMENTS	PRIME WATERPROOFING & ROOFING	\$24,869.00	
Subtotal						\$153,805.00	
Sole Source - Board Approved							
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16244	31	RENEWABLE NATURAL GAS PRODUCTION AND VEHICLE DEMONSTRATION PROJECT	CR&R INCORPORATED	\$900,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16254	31	EVALUATE OZONE AND SECONDARY AEROSOL FORMATION FROM DIESEL FUELS	UNIVERSITY OF CALIFORNIA-BERKELEY	\$106,361.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17030	31	PARTICIPATE IN CAFCP FOR CALENDAR YEAR 2016 & PROVIDE SUPPORT FOR REGIONAL COORDINATOR	BEVILACQUA-KNIGHT INC	\$135,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17031	17	COMMERCIAL ELECTRIC LAWNMOWER AND CORDLESS ELECTRIC HANDHELD LANDSCAPE EQUIPMENT PILOT PROGRAM	CITY OF WILDOMAR	\$4,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17032	17	COMMERCIAL ELECTRIC LAWNMOWER AND CORDLESS ELECTRIC HANDHELD LANDSCAPE EQUIPMENT PILOT PROGRAM	LAKE ELSINORE UNIFIED SCHOOL DISTRICT	\$4,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17033	17	COMMERCIAL ELECTRIC LAWNMOWER AND CORDLESS ELECTRIC HANDHELD LANDSCAPE EQUIPMENT PILOT PROGRAM	JURUPA AREA RECREATION & PARK DISTRICT	\$4,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17034	17	COMMERCIAL ELECTRIC LAWNMOWER AND CORDLESS ELECTRIC HANDHELD LANDSCAPE EQUIPMENT PILOT PROGRAM	COLTON JOINT UNIFIED SCHOOL DISTRICT	\$4,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17035	17	COMMERCIAL ELECTRIC LAWNMOWER AND CORDLESS ELECTRIC HANDHELD LANDSCAPE EQUIPMENT PILOT PROGRAM	CITY OF COLTON	\$4,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17059	31	DEVELOP AND DEMONSTRATE FUEL CELL EXTENDED RANGE POWERTRAIN FOR PARCEL DELIVERY TRUCKS	CALSTART, INC	\$589,750.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17079	01	SCAQMD FIELD OFFICE LEASE	CRC MANAGEMENT LLC	\$503,439.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17086	17	INSTALLATION OF AIR FILTRATION SYSTEMS AT ONE OR MORE SCHOOLS	IQAIR NORTH AMERICA, INC.	\$171,600.00	
26	PLANNING RULE DEV & AREA SOURCES	C17090	46	ENDOWMENT MOA FOR AIR QUALITY & CLIMATE RESEARCH TRAINING PROGRAM	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$1,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17092	31	RNG PRODUCTION AND VEHICLE DEMONSTRATION	KORE INFRASTRUCTURE, LLC	\$2,500,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17105	67	DEVELOPMENT AND DEMONSTRATION OF UP TO 25 CLASS 8 BATTERY ELECTRIC DRAYAGE TRUCKS	BYD MOTORS, INC	\$7,952,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17142	01	STRATEGIC CONSULTING	DOUBLE NICKEL ADVISORS, LLC	\$120,000.00	
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	\$80,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17197	31	DEVELOP AND DEMONSTRATE ULTRA-LOW EMISSION NATURAL GAS SWITCHER LOCOMOTIVE	VERAIL TECHNOLOGIES INC	\$1,000,000.00	
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	\$65,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17207	67	DEVELOPMENT AND DEMONSTRATION OF UP TO 12 CLASS 8 BATTERY ELECTRIC DRAYAGE TRUCKS	PETERBILT MOTORS	\$8,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17225	67	DEVELOPMENT & DEMONSTRATION OF UP TO 2 CLASS 8 BATTERY ELECTRIC DRAYAGE TRUCKS	VOLVO TECHNOLOGY OF AMERICA INC	\$7,998,748.00	

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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 & ENVIRONMENTAL JUSTICE	\$32,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17257	40	CO-SPONSOR "RETHINK METHANE 2017" EVENT	GLADSTEIN, NEANDROSS & ASSOCIATES	\$10,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17310	76	BIOSOLIDS TO TRANSPORTATION FUEL-GRADE RENEWABLE NATURAL GAS (RNG) PRE-COMMERCIALIZATION OPTIMIZATION AND RESEARCH PROJECT	KORE INFRASTRUCTURE, LLC	\$1,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17316	31	DEVELOP AND DEMONSTRATE 10 ZERO-EMISSION FUEL CELL ELECTRIC BUSES	CENTER FOR TRANSPORTATION AND THE ENVIRONMENT	\$1,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17340	40	CO-SPONSOR THE CLEAN TRUCKS NOW WORKSHOP	GLADSTEIN, NEANDROSS & ASSOCIATES	\$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17341	40	DEVELOP THE GAME CHANGER COMMUNICATION TOOLS	GLADSTEIN, NEANDROSS & ASSOCIATES	\$60,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17351	40	CO-SPONSOR THE 2017 ACT EXPO	GLADSTEIN, NEANDROSS & ASSOCIATES	\$12,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17353	31	DEVELOP AND DEMONSTRATE MEDIUM-HEAVY DUTY (CLASS 5-7) PLUG-IN HYBRD ELECTRIC VEHICLES FOR WORK TRUCK APPLICATIONS	ODYNE SYSTEMS, LLC	\$900,000.00	
43	SCIENCE & TECHNOLOGY ADVANCEMENT	C17359	01	ENGAGE, EDUCATE, AND EMPOWER CALIFORNIA COMMUNITIES ON USE AND APPLICATIONS OF "LOW COST" AIR MONITORING SENSORS	COMITE CIVICO DEL VALLE, INC	\$51,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17363	01	DEVELOPMENT OF REAL-TIME PUBLIC AIR QUALITY ALERT SYSTEM	SONOMA TECHNOLOGY INC	\$33,000.00	
44	MSRC	MS16086	23	IMPLEMENT NEW FREEWAY SERVICE PATROL	SAN BERNARDINO ASSOCIATED GOVERNMENTS	\$800,625.00	

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44	MSRC	MS16100	23	IMPLEMENT SPECIAL METROLINK SERVICE TO AUTO CLUB SPEEDWAY	SO CALIFORNIA REGIONAL RAIL AUTHORITY	\$80,455.00	
44	MSRC	MS16105	23	EXPAND CNG STATION	HUNTINGTON BEACH UNION HS DISTRICT	\$175,000.00	
44	MSRC	MS16114	23	PURCHASE 3 HEAVY-DUTY NEAR-ZERO CNG VEHICLES	CITY OF NORWALK	\$45,000.00	
44	MSRC	MS18002	23	IMPLEMENT "GO HUMAN" PROGRAM	SOUTHERN CALIFORNIA ASSOCIATION OF GOVT	\$2,500,000.00	
Subtotal						\$37,891,478.00	
Sole Source - Executive Officer Approved							
35	LEGISLATIVE & PUBLIC AFFAIRS	C17041	01	EVENT PLANNING AND LOGISTICAL SERVICES FOR DR. MARTIIN LUTHER KING - DAY OF SERVICE EVENT	SNAP PRODUCTIONS	\$75,000.00	
08	LEGAL	C17054	01	SUNSHINE CANYON LANDFILL ORDER FOR ABATEMENT EXPERT WITNESS SERVICES	YAZDANI & ASSOCIATES LLC	\$75,000.00	
08	LEGAL	C17066	01	LEGAL ADVICE AND COUNSEL AND REPRESENTATION WITH RESPECT TO CONFLICTS OF INTEREST AND PUBLIC LAW ISSUES	SCHEPER KIM & HARRIS LLP	\$25,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17080	01	MUSIC SERVICES FOR 28TH ANNUAL CLEAN AIR AWARDS	JUSTIN VARGAS	\$100.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17081	01	MUSIC SERVICES FOR 28TH ANNUAL CLEAN AIR AWARDS	LUKE BITHER	\$100.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17082	01	MUSIC SERVICES FOR 28TH ANNUAL CLEAN AIR AWARDS	ANDREW ALVARADO	\$100.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17083	01	MUSIC SERVICES FOR 28TH ANNUAL CLEAN AIR AWARDS	SKYLAR ALLINGHAM	\$100.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17084	01	MUSIC SERVICES FOR 28TH ANNUAL CLEAN AIR AWARDS	FRANK ANDREW VALENZUELA	\$100.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17085	01	MUSIC SERVICES FOR 28TH ANNUAL CLEAN AIR AWARDS	CHRISTIAN R VAZQUEZ	\$100.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C17094	01	STRATEGIC CONSULTING	DOUBLE NICKEL ADVISORS, LLC	\$75,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17099	01	SECOND ANNUAL "ENVIRONMENTAL JUSTICE FOR ALL" CONFERENCE - PERFORMER	ELOISE LAWS	\$550.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17103	01	PROVIDE STRATEGIC AND TRACTICAL CONSULTING	WM CONSULTING INC	\$50,000.00	
08	LEGAL	C17131	01	CONSULTING EXPERT	KENNETH A. MANASTER	\$50,000.00	
08	LEGAL	C17132	01	EVALUATE OPERATIONS AND PROCEDURES OF THE SCAQMD HEARING BOARD	SERVE TO LEAD GROUP INC	\$25,000.00	
08	LEGAL	C17154	01	LEAD ABATEMENT CONSULTANT SERVICES	OCCUPATIONAL KNOWLEDGE INTERNATIONAL	\$19,695.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17155	01	STATEGIC COMMUNICATIONS CONSULTING	MJB STRATEGIES	\$75,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17167	01	2017 CESAR CHAVEZ DAY OF REMEMBRANCE EVENT PLANNING, FACILITATING AND STAFFING	LEE ANDREWS GROUP INC	\$75,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17168	01	PUBLICATION OF A 4 PAGE BROADSHEET FULL-COLOR NEWSPAPER WRAP	LOS ANGELES SENTINEL, INC	\$50,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17180	01	PROVIDE KEYNOTE SPEAKER SERVICES FOR THE SCAQMD MARTIN LUTHER KING, JR DAY OF SERVICE FORUM	MARYUM ALI	\$5,000.00	
08	LEGAL	C17184	01	CONSULTING EXPERT	BASTLEFORD ENGINEERING & CONSULTANCY	\$50,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17215	01	PERFORMANCE OF A SOLOIST/MUSICAL INSPIRATION AT SCAQMD'S MARTIN LUTHER KING JR. DAY OF SERVICE FORUM	ARNAE BATSON	\$500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17216	01	PROVIDE MISTRESS OF CEREMONIES SERVICES FOR THE 2017 MARTIN LUTHER KING, JR. DAY OF SERVICE FORUM	PAT PRESCOTT	\$500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17217	01	SINGING "THE LORD'S PRAYER" AT SCAQMD'S MARTIN LUTHER KING JR. DAY OF SERVICE FORUM	ELOISE LAWS	\$550.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C17219	01	PROVIDE MUSICAL PERFORMERS FOR THE 2017 MARTIN LUTHER KING, JR. DAY OF SERVICE FORUM	MESSAGE MEDIA GROUP	\$2,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17222	01	TRANSPORTATION SERVICES FOR SCAQMD'S MARTIN LUTHER KING JR. DAY OF SERVICE FORUM	TRANSIT SYSTEMS UNLIMITED, INC.	\$4,995.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17223	01	WHEEL CHAIR SERVICES FOR SCAQMD'S MARTIN LUTHER KING JR. DAY OF SERVICE FORUM	CRCD ENTERPRISES	\$1,228.00	
26	PLANNING RULE DEV & AREA SOURCES	C17224	01	EMISSION TESTING OF COMMERCIAL COOKING EQUIPMENT	FISHER-NICKEL	\$70,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17228	01	INLAND EMPIRE ECONOMIC FORECAST AND INDUSTRY OUTLOOK	UCR FORECAST LLC	\$38,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17250	01	MEDIA SKILLS TRAINING	MILAGRO STRATEGY GROUP INC	\$22,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17267	01	HOST SITE FOR 2017 CESAR CHAVEZ DAY OF REMEMBRANCE	LA PLAZA DE CULTURA Y ARTES	\$5,175.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17270	01	PROVIDE KEY NOTE SPEAKER SERVICES AT THE 2017 CESAR CHAVEZ DAY OF REMEMBRANCE EVENT	CHRISTINE CHAVEZ-DELGADO	\$3,000.00	
08	LEGAL	C17273	01	PUBLIC/GOVERNMENTAL LEGAL SERVICES	JONES & MAYER	\$10,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17289	01	2017 CESAR CHAVEZ DAY OF REMEMBRANCE EVENT WHEELCHAIR SERVICES	CRCD ENTERPRISES	\$1,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17290	01	2017 CESAR CHAVEZ DAY OF REMEMBRANCE EVENT	COLIBRI ENTERTAINMENT, INC	\$1,200.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17291	01	LUNCHEON EXPENSES FOR 2017 CLEAN AIR AWARDS	MILLENNIUM BILTMORE HOTEL	\$35,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	\$4,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17311	01	PARKING LOT FOR CESAR CHAVEZ DAY OF REMEMBRANCE	CITY OF LOS ANGELES	\$1,500.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C17313	01	TRANSPORTATION SERVICES FOR 2017 CESAR CHAVEZ DAY OF REMEMBRANCE EVENT	TRANSIT SYSTEMS UNLIMITED, INC.	\$2,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17317	01	2017 HONDA CLARITY VEH LEASE	AMERICAN HONDA MOTOR COMPANY INC	\$17,303.85	
08	LEGAL	C17318	01	SUNSHINE CANYON LANDFILL ORDER FOR ABATEMENT EXPERT WITNESS SERVICES	E TSENG & ASSOCIATES, INC.	\$75,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17327	01	CONGRESSIONAL STAFF DELEGATION LODGING	THE STANDARD DOWNTOWN LA	\$12,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17343	01	3 YEAR LEASE OF HONDA CLARITY	AMERICAN HONDA MOTOR COMPANY INC	\$17,328.09	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17344	01	HOTEL ACCOMODATIONS FOR SCAQMD DELEGATION VISIT TO WASHINGTON DC	PEBBLEBROOK HOTEL LESSEE, INC	\$22,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17355	01	2017 ENVIRONMENTAL JUSTICE CONFERENCE CATERING AGREEMENT	LEVY PREMIUM FOODSERVICE PARTNERSHIP	\$22,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17364	01	HUMAN RESOURCES WEB-BASED SOFTWARE (NEOGOV)	NEOGOV	\$31,079.91	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17378	01	EXECUTIVE OFFICE REDESIGN	FORMA STUDIO	\$50,000.00	
08	LEGAL	C17387	01	LEGAL ADVICE AND REPRESENTATION	JENKINS & HOGIN LLP	\$15,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C17389	01	ENHANCEMENT OF WEB-BASED ANNUAL EMISSIONS REPORTING TOOL	ECOTEK INC	\$25,000.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C17395	01	LABOR AND EMPLOYMENT LAW	SELTZER CAPLAN MCMAHON VITEK	\$25,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17400	01	USE OF FACILITY FOR SCAQMD'S EJ INTER-AGENCY MEETING	CALIFORNIA COMMUNITY FOUNDATION	\$900.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17402	01	UPDATE TO THE RIGHT TO BREATHE	CINEMA VERTIGE, LLC	\$74,270.00	
Subtotal						\$1,240,874.85	

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II. OTHER							
Board Assistant							
Board Administrative Committee Reviewed/Executive Officer Approved							
02	GOVERNING BOARD	C17000	01	BOARD ASSISTANT SERVICES FOR DR. WILLIAM BURKE	P & L CONSULTING, LLC	\$117,993.00	
02	GOVERNING BOARD	C17001	01	BOARD ASSISTANT SERVICES FOR MICHAEL ANTONOVICH	DEBRA S MENDELSON	\$66,055.00	
02	GOVERNING BOARD	C17002	01	BOARD ASSISTANT SERVICES FOR BEN BENOIT	RUTHANNE TAYLOR BERGER	\$86,000.00	
02	GOVERNING BOARD	C17003	01	BOARD ASSISTANT SERVICES FOR JOSEPH LYOU	MARK ABRAMOWITZ	\$41,608.00	
02	GOVERNING BOARD	C17004	01	BOARD ASSISTANT SERVICES FOR JOHN J. BENOIT	BUFORD A CRITES	\$44,747.00	
02	GOVERNING BOARD	C17005	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	DAVID CZAMANSKE	\$7,999.98	
02	GOVERNING BOARD	C17006	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	JAMES GLEN DUNCAN	\$8,484.00	
02	GOVERNING BOARD	C17007	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	FRANK CARDENAS AND ASSOCIATES	\$7,777.00	
02	GOVERNING BOARD	C17008	01	BOARD ASSISTANT SERVICES FOR JOE BUSCAINO	JACOB LEE HAIK	\$45,812.00	
02	GOVERNING BOARD	C17009	01	BOARD ASSISTANT SERVICES FOR SHAWN NELSON	INFRASTRUCTURE GROUP, INC	\$51,139.00	
02	GOVERNING BOARD	C17010	01	BOARD ASSISTANT SERVICES FOR CLARK E. PARKER	MARIA INIGUEZ	\$38,750.00	
02	GOVERNING BOARD	C17011	01	BOARD ASSISTANT SERVICES FOR J. MITCHELL	CHUNG S. LIU	\$54,873.60	
02	GOVERNING BOARD	C17012	01	BOARD ASSISTANT SERVICES FOR JOSEPH LYOU	NICOLE NISHIMURA	\$37,764.00	
02	GOVERNING BOARD	C17013	01	BOARD ASSISTANT SERVICES FOR JUDITH MITCHELL	MARISA KRISTINE PEREZ	\$63,119.40	
02	GOVERNING BOARD	C17014	01	BOARD ASSISTANT SERVICES FOR JANICE RUTHERFORD	COUNTY OF SAN BERNARDINO	\$58,064.00	

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02	GOVERNING BOARD	C17015	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	SHO TAY	\$4,570.00	
02	GOVERNING BOARD	C17016	01	BOARD ASSISTANT SERVICES FOR LARRY MCCALLON	RONALD KETCHAM	\$39,041.00	
02	GOVERNING BOARD	C17017	01	BOARD ASSISTANT SERVICES FOR DWIGHT ROBINSON	THOMAS A. FUENTES, JR	\$13,110.00	
02	GOVERNING BOARD	C17018	01	BOARD ASSISTANT SERVICES FOR DWIGHT ROBINSON	MATTHEW AUGUST HOLDER	\$26,220.67	
02	GOVERNING BOARD	C17019	01	BOARD ASSISTANT SERVICES FOR BEN BENOIT	CITY OF WILDOMAR	\$31,993.00	
02	GOVERNING BOARD	C17021	01	BOARD ASSISTANT SERVICES FOR MICHAEL CACCIOTTI	MARY ANN LUTZ	\$5,250.00	
02	GOVERNING BOARD	C17262	01	BOARD ASSISTANT SERVICES FOR SHEILA KEUHL	DIANE MOSS	\$33,856.68	
Subtotal						\$884,227.33	
Other - Executive Officer Approved							
16	ADMINISTRATIVE & HUMAN RESOURCES	C17053	01	EMPLOYMENT RELATIONS TRAINING	LIEBERT CASSIDY WHITMORE	\$3,720.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17060		BAILMENT AGREEMENT	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	1
16	ADMINISTRATIVE & HUMAN RESOURCES	C17113	01	RUBIDOUX AIR MONITORING STATION LEASE	SOUTHERN CALIFORNIA EDISON	\$10,554.03	
26	PLANNING RULE DEV & AREA SOURCES	C17130	01	RULE 1147 TASK FORCE MEETING SUPPORT AFTER REVIEW OF DRAFT TECHNOLOGY ASSESSMENT	ETS INC	\$837.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17280	01	LONG BEACH AIR MONITORING STATION LEASE	ERNST & HAAS MANAGEMENT CO., INC.	\$0.00	1
Subtotal						\$15,111.03	

III. SPONSORSHIPS

Sponsorship -Executive Officer Approved

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16389	01	CO-SPONSOR FUTUREREPORTS ANNUAL CONFERENCE 2016	FUTUREREPORTS	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17043	01	CO-SPONSOR 2016 LOS ANGELES ENVIRONMENTAL FORUM	SOUTHERN CALIFORNIA CHINESE-AMERICAN	\$2,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17045	01	CO-SPONSOR THE 1ST ANNUAL SOUTH LOS ANGELES YOUTH SUSTAINABILITY AND EMPOWERMENT SUMMIT	CALIFORNIA GREENWORKS, INC.	\$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17046	01	2016 CLEAN AIR CAR SHOW AND GREEN LIVING EXPO	CITY OF SOUTH PASADENA	\$3,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17047	01	"YOUR LIFE IS NOW" ENVIRONMENTAL HEALTH SUMMIT	COMMUNITY PARTNERS	\$2,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17051	01	CO-SPONSOR ULTRA-LOW NOX HEAVY-DUTY ENGINES WORKSHOP	GLADSTEIN, NEANDROSS & ASSOCIATES	\$10,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17056	01	11TH ANNUAL TASTE OF SOUL 2016 FAMILY FESTIVAL	LOS ANGELES SENTINEL, INC	\$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17058	01	SPONSORSHIP OF THE LOS ANGELES NATIONAL DRIVE ELECTRIC WEEK 2016	ADOPT A CHARGER, INC.	\$3,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17061	01	CO-SPONSOR THE 2016 SANTA MONICA ALTCAR EXPO AND CONFERENCE	PLATIA PRODUCTIONS	\$20,785.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17062	01	CO-SPONSOR THE SOUTHERN CALIFORNIA ENERGY WATER + GREEN LIVING 2016 SUMMIT	BURKE RIX COMMUNICATIONS, LLC	\$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17067	01	SPONSORSHIP OF THE RENDEZVOUS BACK TO ROUTE 66	SAN BERNARDINO AREA CHAMBER OF COMMERCE	\$3,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17073	01	16TH ANNUAL SENIOR APPRECIATION LUNCHEON	ART ACTIVE, INC	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17076	01	CO-SPONSOR RETHINK METHANE 2017	GLADSTEIN, NEANDROSS & ASSOCIATES	\$25,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17088	01	CO-SPONSOR THE POWER OF WASTE: RENEWABLE NATURAL GAS (RNG) FOR CALIFORNIA WORKSHOP	ENERGY VISION, INC.	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17089	01	CO-SPONSOR THE CALETC 2016 LOS ANGELES AUTO SHOW EVENTS	CALIFORNIA ELECTRIC TRANSP. COALITION	\$8,000.00	

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35	LEGISLATIVE & PUBLIC AFFAIRS	C17093	01	SBCCOG 18TH ANNUAL GENERAL ASSEMBLY	SOUTH BAY CITIES	\$2,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17095	01	CO-SPONSOR THE HYDROGEN AND FUEL CELLS IN THE PORTS WORKSHOP	CALIFORNIA HYDROGEN BUSINESS COUNCIL	\$2,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17174	01	CO-SPONSOR 27TH REAL WORLD EMISSIONS WORKSHOP	COORDINATING RESEARCH COUNCIL INC	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17175	01	CO-SPONSOR 2017 MOBILE SOURCE AIR TOXICS WORKSHOP	COORDINATING RESEARCH COUNCIL INC	\$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17179	01	SPONSORSHIP OF PIONEER OF AFRICAN ACHIEVEMENT AWARD DINNER	LOS ANGELES BROTHERHOOD CRUSADE	\$6,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17182	01	SPONSORSHIP OF HAPPY 10TH "NEW" JPy	JPY-LA	\$1,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17275	01	CO-SPONSOR ICEPAG 2017	UNIVERSITY OF CALIFORNIA - IRVINE	\$7,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17282	01	CO-SPONSOR CALSTART'S 25TH ANNIVERSARY SYMPOSIUM	CALSTART, INC	\$15,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17285	01	SPONSORSHIP OF 24TH ANNUAL ECONOMIC AWARDS DINNER	GREATER LOS ANGELES AFRICAN AMERICAN	\$5,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17306	01	CLAREMONT EARTH DAY CELEBRATION 2017	SUSTAINABLE CLAREMONT	\$250.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17314	01	CO-SPONSOR THE 2017 PORTABLE EMISSIONS MEASUREMENT SYSTEMS CONFERENCE & WORKSHOP	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$10,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17315	01	CO-SPONSOR ANNUAL MOSQUITO AWARENESS DAY EVENT	COMPTON CREEK MOSQUITO ABATEMENT DIST.	\$1,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17323	01	PARKS, POLLUTION AND OBESITY: GOING BEYOND EXERCISE AND EATING	UNIVERSITY OF SOUTHERN CALIFORNIA	\$2,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17324	01	CO-SPONSOR WHITTIER EARTH DAY 2017	WHITTIER UPTOWN ASSOCIATION	\$250.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17325	01	ENVIRONMENTAL HEALTH & ENFORCEMENT SUMMIT	DEL AMO ACTION COMMITTEE	\$2,500.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17334	01	CO-SPONSOR THE EMERGING TECNOLOGIES SUMMIT	FOURTH WALL EVENTS	\$10,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17346	01	CO-SPONSOR THE ACT EXPO 2017	GLADSTEIN, NEANDROSS & ASSOCIATES	\$50,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17347	01	CO-SPONSOR THE HYDROGEN AND FUEL CELL ON-ROAD FREIGHT WORKSHOP	CALIFORNIA HYDROGEN BUSINESS COUNCIL	\$2,500.00	
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.	\$50,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17357	01	12TH ANNUAL TASTE OF SOUL 2017 FAMILY FESTIVAL SPONSORSHIP	LOS ANGELES SENTINEL, INC	\$50,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17366	01	26TH ANNUAL ASSEMBLY & LEADERSHIP ADDRESS	WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17369	01	CO-SPONSOR FUTURE PORTS ANNUAL CONFERENCE 2017	FUTUREREPORTS	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17370	01	CO-SPONSOR THE 2017 ADVANCED TRANSPORTATION SYMPOSIUM & EXPO	SUSTAIN OC	\$3,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17396	01	CO-SPONSOR 2017 ENVIRONMENTAL JUSTICE AWARDS EVENT	PACOIMA BEAUTIFUL	\$5,000.00	
Subtotal						\$397,785.00	

IV. MODIFICATIONS

Board Approved

08	LEGAL	C12075	01	ENVIRONMENTAL LAW	WOODRUFF SPRADLIN & SMART	\$50,000.00	
08	LEGAL	C12075	01	ENVIRONMENTAL LAW	WOODRUFF SPRADLIN & SMART	\$200,000.00	
08	LEGAL	C12075	01	ENVIRONMENTAL LAW	WOODRUFF SPRADLIN & SMART	\$250,000.00	
08	LEGAL	C12075	01	ENVIRONMENTAL LAW	WOODRUFF SPRADLIN & SMART	\$250,000.00	

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08	LEGAL	C12128	01	EMPLOYMENT & LABOR LAW	FISHER & PHILLIPS, LLP	\$75,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12308	40	PERFORM WEBSITE SERVICES FOR THE CNGVP	GLADSTEIN, NEANDROSS & ASSOCIATES	\$15,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12308	40	PERFORM WEBSITE SERVICES FOR THE CNGVP	GLADSTEIN, NEANDROSS & ASSOCIATES	\$7,500.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12308	40	PERFORM WEBSITE SERVICES FOR THE CNGVP	GLADSTEIN, NEANDROSS & ASSOCIATES	\$30,800.00	
08	LEGAL	C12702	01	LEGAL ADVICE FOR LAWSUITS AND ADMINISTRATIVE PROCEEDINGS	SHUTE MIHALY & WEINBERGER LLP	\$100,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14027	58	COACHELLA VALLEY WEATHERIZATION PROJECT	QUALITY INTERIORS, INC.	\$12,831.60	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14031	58	INSTALLATION OF SOLAR PHOTOVOLTAIC GROUND MOUNT SYSTEM	PALM SPRINGS UNIFIED SCHOOL DISTRICT	\$1,602,073.00	
26	PLANNING RULE DEV & AREA SOURCES	C14188	01	PROVIDE TECHNICAL SUPPORT FOR THE SCAQMD UPPER AIR METEOROLOGICAL MONITORING NETWORK	SONOMA TECHNOLOGY INC	\$110,000.00	
08	LEGAL	C14191	01	PROVIDE LEGAL SERVICES CONCERNING EXIDE BANKRUPTCY PROCEEDINGS	KLEE, TUCHIN, BOGDANOFF & STERN LLP	\$40,000.00	
08	LEGAL	C14191	01	PROVIDE LEGAL SERVICES CONCERNING EXIDE BANKRUPTCY PROCEEDINGS	KLEE, TUCHIN, BOGDANOFF & STERN LLP	\$150,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14378	63	UPGRADE CITY OF BURBANK HYDROGEN FUELING STATION	H2 FRONTIER, INC.	\$989,661.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15150	31	INSTALL/UPGRADE EIGHT HYDROGEN FUELING STATIONS THROUGHOUT SCAB	AIR PRODUCTS & CHEMICALS INC	\$0.00	11
27	INFORMATION MANAGEMENT	C15446	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	\$215,000.00	
27	INFORMATION MANAGEMENT	C15446	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	SIERRA CYBERNETICS INC	\$163,000.00	

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27	INFORMATION MANAGEMENT	C15447	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	AGREEYA SOLUTIONS, INC	\$33,000.00	
27	INFORMATION MANAGEMENT	C15447	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	AGREEYA SOLUTIONS, INC	\$242,000.00	
27	INFORMATION MANAGEMENT	C15468	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	VARSUN ETECHNOLOGIES GROUP, INC	\$45,000.00	
27	INFORMATION MANAGEMENT	C15468	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	VARSUN ETECHNOLOGIES GROUP, INC	\$51,820.00	
27	INFORMATION MANAGEMENT	C15468	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	VARSUN ETECHNOLOGIES GROUP, INC	\$375,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C15494	01	SACRAMENTO LEGISLATIVE REPRESENTATION	GONZALEZ, QUINTANA, HUNTER & CRUZ, LLC	\$207,000.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C15495	01	SACRAMENTO LEGISLATIVE REPRESENTATION	JOE A GONSALVES & SON	\$143,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15541	56	ENHANCED FLEET MODERNIZATION PROGRAM	FOUNDATION FOR CALIF COMMUNITY COLLEGES	\$30,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15541	56,01	ENHANCED FLEET MODERNIZATION PROGRAM	FOUNDATION FOR CALIF COMMUNITY COLLEGES	\$30,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15541	56	ENHANCED FLEET MODERNIZATION PROGRAM	FOUNDATION FOR CALIF COMMUNITY COLLEGES	\$115,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15586	56	ENHANCED FLEET MODERNIZATION PROGRAM	OPUS INSPECTION INC	\$30,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15586	56	ENHANCED FLEET MODERNIZATION PROGRAM	OPUS INSPECTION INC	\$30,000.00	
27	INFORMATION MANAGEMENT	C15587	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	PRELUDE SYSTEMS, INC.	\$80,000.00	

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27	INFORMATION MANAGEMENT	C15587	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	PRELUDE SYSTEMS, INC.	\$250,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15614	17	COMMERCIAL ELECTRIC LAWNMOWER PILOT PROGRAM WITHIN SAN BERNARDINO	MEAN GREEN PRODUCTS LLC	\$216,079.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15628	54	ADVANCED OPTICAL REMOTE SENSING TECHNOLOGIES AT REFINERIES, OTHER VOC SOURCES AND MARINE VESSELS	FLUXSENSE AB	\$0.00	6
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	
20	MEDIA OFFICE	C16190	36	GOOGLE AD CAMPAIGN	GOOGLE, INC	\$250,000.00	
20	MEDIA OFFICE	C16190	46	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	\$1,000,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16245	01	UPGRADE METEOROLOGICAL SYSTEMS AND DATA COMMUNICATIONS	TECHNICAL AND BUSINESS SYSTEMS	\$20,000.00	
08	LEGAL	C17184	01	CONSULTING EXPERT	BASTLEFORD ENGINEERING & CONSULTANCY	\$120,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17200	32	REPLACE 6 OFF-ROAD AGRICULTURAL VEHICLES	COTTONWOOD DAIRY	\$36,395.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17220	32	REPLACE 7 OFF-ROAD AGRICULTURAL EQUIPMENT	WEST COAST TURF	\$302,110.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17253	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	LA QUINTA DATE GROWERS, L.P.	\$64,554.00	
44	MSRC	MS14089	56	ENHANCED FLEET MODERNIZATION PROGRAM	TOP SHELF CONSULTING LLC	\$30,020.00	
44	MSRC	MS14089	56	ENHANCED FLEET MODERNIZATION PROGRAM	TOP SHELF CONSULTING LLC	\$44,980.00	
44	MSRC	MS16004	23	HOST AND MAINTAIN MSRC WEBSITE	MINERAL, LLC	\$1,800.00	
44	MSRC	MS16030	23	PROGRAMMATIC OUTREACH SERVICES ON BEHALF OF THE MSRC	THE BETTER WORLD GROUP, INC	\$10,716.00	
Subtotal						\$18,093,829.60	

Board Assistant

Board Administrative Committee Reviewed/Executive Officer Approved

02	GOVERNING BOARD	C17004	01	BOARD ASSISTANT SERVICES FOR JOHN J. BENOIT	BUFORD A CRITES	\$0.00	11
02	GOVERNING BOARD	C17014	01	BOARD ASSISTANT SERVICES FOR JANICE RUTHERFORD	COUNTY OF SAN BERNARDINO	\$0.00	4
02	GOVERNING BOARD	C17018	01	BOARD ASSISTANT SERVICES FOR DWIGHT ROBINSON	MATTHEW AUGUST HOLDER	\$1,557.00	
02	GOVERNING BOARD	C17018	01	BOARD ASSISTANT SERVICES FOR DWIGHT ROBINSON	MATTHEW AUGUST HOLDER	\$3,022.49	
Subtotal						\$4,579.49	

Executive Officer Approved

26	PLANNING RULE DEV & AREA SOURCES	C06032	01	ORANGE COUNTY UPPER AIR STATION LEASE	UNIVERSITY OF CALIFORNIA - IRVINE	\$20,035.41	
11	LEGAL	C07321	01	ADVICE REGARDING PUBLIC FINANCE BONDS, TAXES, FEES, ETC.	STRADLING YOCCA CARLSON & RAUTH	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C09353	32	REPOWER 1 GRADER, 5 REFUSE COMPACTORS, AND 3 DOZERS	LOS ANGELES COUNTY SANITATION DISTRICTS	\$0.00	11

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C09364	31	CONSTRUCT/INSTALL CNG REFUELING STATION AND PERFORM GARAGE UPGRADES	RIM OF THE WORLD UNIFIED SCHOOL DISTRICT	\$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C10001	01	STAMPFRAG MEMBER SERVICES	CENTER FOR CONTINUING STUDY-CA ECONOMY	\$13,500.00	
08	LEGAL	C10052	01	PROVIDE EMPLOYEE RELATIONS LITIGATION SERVICES	LIEBERT CASSIDY WHITMORE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C10171	32	REPOWER 2 DUAL-ENGINE SCRAPERS, 2 CRAWLER TRACTORS, AND 1 RUBBER-TIRED DOZER (fy08-09/YEAR 11 MOYER)	OC WASTE & RECYCLING	\$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C10706	36	REDUCTION OF GREENHOUSE GASES THROUGH REFORESTATION	NATIONAL FOREST FOUNDATION	\$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C10706	36	REDUCTION OF GREENHOUSE GASES THROUGH REFORESTATION	NATIONAL FOREST FOUNDATION	\$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	C11411	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CENTURY SAND & GRAVEL INC	\$0.00	6
08	LEGAL	C11594	01	LEGAL REPRESENTATION	PERKINS COIE LLP	\$0.00	11
08	LEGAL	C11594	01	LEGAL REPRESENTATION	PERKINS COIE LLP	\$10,000.00	
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
08	LEGAL	C12128	01	EMPLOYMENT & LABOR LAW	FISHER & PHILLIPS, LLP	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12536	81	PROP 1B TRUCK REPLACEMENT PROGRAM	JUAN M. CORPUS	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12836	81	PROP 1B TRUCK REPLACEMENT PROGRAM	GANDUGLIA TRUCKING	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13041	01	TECHNICAL ASSISTANCE WITH EMISSION REDUCTION PROJECTS TO BE IMPLEMENTED UNDER AB 1318 MITIGATION	MELVIN D ZELDIN	\$0.00	6

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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
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	C13194	01	PROVIDE TECHNICAL ASSISTANCE WITH ALTERNATIVE FUELS, RENEWABLE ENERGY AND ELECTRIC VEHICLES	CLEAN FUEL CONNECTION INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13396	31	DEVELOP AND DEMONSTRATE 4 CLASS 8 ZERO-EMISSION ELECTRIC TRUCKS - FIRST INVOICE PAYMENT PER NANCY COLE 7/5/13	TRANSPORTATION POWER, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13408	31	DEMONSTRATION OF BUILDING INTEGRATION OF ELECTRIC VEHICLES, PHOTOVOLTAICS, AND STATIONARY FUEL CELLS	UNIVERSITY OF CALIFORNIA - IRVINE	\$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	4
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C13431	27	DEMONSTRATE STAGED COMBUSTION HYDROGEN ASSISTED EMISSION CONTROL SYSTEM	GAS TECHNOLOGY INSTITUTE	\$0.00	6
08	LEGAL	C13458	01	PROVIDE LIABILITY COUNSEL SERVICES	LYNBERG & WATKINS, APC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14036	58	PROCURE 1 CNG MEDIUM-DUTY VEHICLE	ST. ELIZABETH OF HUNGARY CATHOLIC CHURCH	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14156	01	LEASE & PURCHASE 3 PHEV VEHICLES	GALPIN MOTORS, INC	\$39,663.35	
26	PLANNING RULE DEV & AREA SOURCES	C14171	31	AIR POLLUTION HEALTH EFFECTS - IN-UTERO EXPOSURES TO TRAFFIC RELATED POLLUTANTS	SOUTHERN CALIFORNIA RESEARCH	\$0.00	6

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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	C14329	81	PROP 1B TRUCK REPLACEMENT PROGRAM	M & V EQUIPMENT, LLC	\$0.00	1
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14357	32	OPERATE 2 REPOWERED FORKLIFTS	ALL ACCESS EQUIPMENT RENTALS, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14392	81	PROP 1B TRUCK REPLACEMENT PROGRAM	P.A. PARKER, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14530	81	PROP 1B TRUCK REPLACEMENT PROGRAM	ESQ DELIVERY SERVICES	\$0.00	11
16	ADMINISTRATIVE & HUMAN RESOURCES	C14657	01	WORKER'S COMPENSATION CLAIMS THIRD PART ADMINISTRATOR	ADMINSURE, INC	\$39,264.00	
16	ADMINISTRATIVE & HUMAN RESOURCES	C14670	01	CLASSIFICATION AND COMPENSATION SERVICES	KOFF & ASSOCIATES, INC.	\$0.00	6
08	LEGAL	C14680	01	LEGAL CONSULTATION RELATING TO 2012 AQMP CONTROL MEASURE IND-01	DAVID NAWI	\$0.00	6
08	LEGAL	C14681	01	OFFICE OF GENERAL COUNSEL CASE MANAGEMENT SYSTEM	COURTVIEW JUSTICE SOLUTIONS, INC	\$25,862.00	
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	11
50	ENGINEERING AND PERMITTING	C15279	01	EXIDE MITIGATION PLAN FOR CONSTRUCTION OF RISK REDUCTION MEASURES	TETRA TECH BAS	\$0.00	11
50	ENGINEERING AND PERMITTING	C15279	01	EXIDE MITIGATION PLAN FOR CONSTRUCTION OF RISK REDUCTION MEASURES	TETRA TECH BAS	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15288	81	PROP 1B TRUCK REPLACEMENT PROGRAM	PMG TRUCKING LLC	\$0.00	11

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15369	31	TECHNICAL ASSISTANCE WITH LOW- AND ZERO EMISSION VEHICLES, FUEL CELLS, STATIONARY APPLICATIONS AND EMISSIONS ANALYSES	BREAKTHROUGH TECHNOLOGIES INSTITUTE INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15380	31	TECHNICAL ASSISTANCE WITH GOODS MOVEMENT, ALTERNATIVE FUELS, AND ZERO- EMISSION TRANSPORTATION TECHNOLOGIES	ICF RESOURCES, LLC	\$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
08	LEGAL	C15485	01	OUTSIDE COUNSEL - CONFLICT OF INTEREST	OLSON, HAGEL & FISHBURN LLP	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C15511	01	ONTARIO TUFFSHED AIR MONITORING STATION	TUFF SHED INC.	\$60,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C15577	01	PROVIDE SCIENTIFIC, TECHNICAL AND MODELING PEER REVIEW ADVISORY GROUP SERVICES	JIN HUANG	\$0.00	6
08	LEGAL	C15584	01	PROVIDE EXPERT CONSULTING IN THE AREA OF RULES 1304.2 AND 1304.3	FRANK A. WOLAK	\$0.00	6
27	INFORMATION MANAGEMENT	C15587	01	SHORT AND LONG-TERM SYSTEMS DEVELOPMENT, MAINTENANCE AND SUPPORT SERVICES	PRELUDE SYSTEMS, INC.	\$35,000.00	
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	C15607	01	INNOVATIVE TRANSPORTATION SYSTEM SOLUTIONS FOR NOX REDUCTIONS IN HEAVY- DUTY FLEETS	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15610	01	CONDUCT ENGINEERING SERVICES AT SCAQMD HEADQUARTERS FOR THE UPGRADE AND EXPANSION OF SCAQMD'S ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	GOSS ENGINEERING, INC	\$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15610	01	CONDUCT ENGINEERING SERVICES AT SCAQMD HEADQUARTERS FOR THE UPGRADE AND EXPANSION OF SCAQMD'S ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	GOSS ENGINEERING, INC	\$10,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15623	31	PILOT STUDY-OZONE AND SECONDARY ORGANIC AEROSOL (SOA) FORMATION FROM GASOLINE AND DIESEL COMPOUNDS	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15625	31	EVALUATE SECONDARY ORGANIC AEROSOL (SOA) FORMATION POTENTIAL FROM LIGHT-DUTY GASOLINE DIRECT INJECTION (GDI) VEHICLES	UNIVERSITY OF CALIFORNIA RIVERSIDE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15626	31	DEVELOPMENT, INTEGRATION, AND DEMO OF ULTRA-LOW EMISSION NATURAL GAS ENGINES FOR ON-ROAD HEAVY-DUTY VEHICLES	CUMMINS WESTPORT INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15628	54	ADVANCED OPTICAL REMOTE SENSING TECHNOLOGIES AT REFINERIES, OTHER VOC SOURCES AND MARINE VESSELS	FLUXSENSE AB	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15632	31	DEVELOP ULTRA-LOW EMISSION NATURAL GAS ENGINE FOR ON-ROAD CLASS 4 TO 7 VEHICLES	GAS TECHNOLOGY INSTITUTE	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15635		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	CENTER FOR TRANSPORTATION AND	\$0.00	11
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
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15637	54	ADVANCED OPTICAL REMOTE SENSING TECHNOLOGIES AT REFINERIES, OTHER VOC SOURCES AND MARINE VESSELS	KASSAY FIELD SERVICES, INC.	\$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15638	54	ADVANCED OPTICAL REMOTE SENSING TECHNOLOGIES AT REFINERIES, OTHER VOC SOURCES AND MARINE VESSELS	ATMOSFIR OPTICS LTD	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C15643	01	CARSON AIR MONITORING STATION	VENTURA TRANSFER COMPANY	\$8,800.00	
08	LEGAL	C15651	01	ENVIRONMENTAL / GOVERNMENTAL LAW	BEST BEST & KRIEGER	\$7,000.00	
08	LEGAL	C15651	01	ENVIRONMENTAL / GOVERNMENTAL LAW	BEST BEST & KRIEGER	\$10,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15653	54	ADVANCED OPTICAL REMOTE SENSING TECHNOLOGIES AT REFINERIES, OTHER VOC SOURCES AND MARINE VESSELS	NPL MANAGEMENT LIMITED	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15653	54	ADVANCED OPTICAL REMOTE SENSING TECHNOLOGIES AT REFINERIES, OTHER VOC SOURCES AND MARINE VESSELS	NPL MANAGEMENT LIMITED	\$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	31	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	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15680	31	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	\$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C16034	01	EVALUATE POTENTIAL HEALTH EFFECTS FROM AIR POLLUTION	MICHAEL T. KLEINMAN	\$0.00	6

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08	LEGAL	C16042	01	PROVIDE LEGAL SERVICES IN CONNECTION WITH DEVELOPING AND IMPLEMENTING LEGAL STRATEGY FOR RECLAIM RULE	ARNOLD & PORTER LLP	\$0.00	6
20	MEDIA OFFICE	C16048	01	GOOGLE ADVERTISING CAMPAIGN	GROUP 1 PRODUCTIONS	\$250.00	
20	MEDIA OFFICE	C16048	01	GOOGLE ADVERTISING CAMPAIGN	GROUP 1 PRODUCTIONS	\$1,800.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16056	80	REPLACE 10 AND PURCHASE 1 DIESEL LOCOMOTIVE	SO CALIFORNIA REGIONAL RAIL AUTHORITY	\$0.00	1
35	LEGISLATIVE & PUBLIC AFFAIRS	C16062	01	10TH ANNUAL TASTE OF SOUL 2015 FAMILY FESTIVAL ASSOCIATE SPONSORSHIP	LOS ANGELES SENTINEL, INC	\$0.00	6
08	LEGAL	C16063	01	SPECIALIZED LEGAL SERVICES	HOGAN LOVELLS US LLP	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16064	01	SUBSURFACE GEOTECHNICAL INVESTIGATION	COTTON, SHIRES AND ASSOCIATES, INC.	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16064	01	SUBSURFACE GEOTECHNICAL INVESTIGATION	COTTON, SHIRES AND ASSOCIATES, INC.	\$25,500.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C16074	01	ENVIRONMENTAL JUSTICE COMMUNITY PARTNERSHIP (THE PARTNERSHIP) INITIATIVE	LEE ANDREWS GROUP INC	\$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C16074	01	ENVIRONMENTAL JUSTICE COMMUNITY PARTNERSHIP (THE PARTNERSHIP) INITIATIVE	LEE ANDREWS GROUP INC	\$10,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C16080	01	ENHANCEMENT OF WEB-BASED ANNUAL EMISSIONS REPORTING TOOL	ECOTEK INC	\$39,223.00	
26	PLANNING RULE DEV & AREA SOURCES	C16082	01	REVIEW OF SECTORAL ECONOMIC IMPACT ANALYSIS FOR SMALL SCALE IMPACTS	INDUSTRIAL ECONOMICS INCORPORATED	\$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C16082	01	REVIEW OF SECTORAL ECONOMIC IMPACT ANALYSIS FOR SMALL SCALE IMPACTS	INDUSTRIAL ECONOMICS INCORPORATED	\$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C16138	01	ASSIST SCAQMD WITH THE PRODUCTION OF A PUBLIC SERVICE ANNOUNCEMENT	SAN BERNARDINO COMMUNITY COLLEGE DIST.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16153	32	REPOWER OF 1 OFF-ROAD VEHICLE	MICHAEL WILLEMSSEN	\$0.00	6
26	PLANNING RULE DEV & AREA SOURCES	C16154	65	DETERMINATION OF THE SYNERGISTIC/ADDITIVE ADJUVANT EFFECT AMONG OZONE STUDY	UNIVERSITY OF CALIFORNIA-LOS ANGELES	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16167	32	REPOWER OF 3 OFF-ROAD VEHICLES	A & I ROCK CO., INC.	\$0.00	6

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16180	32	REPLACEMENT OF 3 OFF-ROAD VEHICLES	SHINKLE & SONS GREENHOUSES INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16180	32	REPLACEMENT OF 3 OFF-ROAD VEHICLES	SHINKLE & SONS GREENHOUSES INC	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16181	01	ONLINE APPLICATION SYSTEM FOR CARL MOYER PROGRAM	TRINITY TECHNOLOGY GROUP, INC.	\$49,700.00	
27	INFORMATION MANAGEMENT	C16204	01	PHONE SYSTEM MAINTENANCE SERVICES	EPOCH UNIVERSAL, INC	\$30,000.00	
26	PLANNING RULE DEV & AREA SOURCES	C16214	01	PROVIDE ASSISTANCE WITH CEQA SERVICES FOR SCAQMD RULE PROJECTS	PLACEWORKS INC	\$0.00	6
50	ENGINEERING AND PERMITTING	C16239	01	STUDY ALTERNATIVES TO HYDROFLUORIC ACID USED AS A CATALYST IN ALKYLATION PROCESSES AT REFINERIES	NORTON ENGINEERING CONSULTANTS, INC	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16248	01	ELEVATOR SERVICE AND PREVENTATIVE MAINTENANCE FOR FY 2016-17	THYSSENKRUPP ELEVATOR CORP	\$950.00	
08	LEGAL	C16258	01	COUNSEL; BANKRUPTCY	DRAY, DYEKMAN, REED & HEALEY PC	\$5,000.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16294	81	PROP 1B TRUCK REPLACEMENT PROGRAM	YOUNGMAN SA	\$0.00	11
16	ADMINISTRATIVE & HUMAN RESOURCES	C16313	01	PAINT EXTERIOR ROLLUP DOORS AND SOLID PANEL ENTRY DOORS	MEAR CONSTRUCTION INC	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16313	01	PAINT EXTERIOR ROLLUP DOORS AND SOLID PANEL ENTRY DOORS	MEAR CONSTRUCTION INC	\$2,400.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16328	81	PROP 1B TRUCK REPLACEMENT PROGRAM	TRACEY POTTER	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16330	27	REPOWER 2 MAIN ENGINES ON 1 MARINE VESSEL	CHRISTIE DOAN	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16350	27	REPOWER OF 2 MAIN ENGINES OF A MARINE VESSEL	PHILIP HUYNH	\$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	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16360	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CONRAD NOVACK	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16376	01	TECHNICAL SUPPORT OF DATA MANAGEMENT SYSTEMS	SONOMA TECHNOLOGY INC	\$12,500.00	
08	LEGAL	C16392	01	LEGAL ADVICE AND REPRESENTATION FOR SO CAL GAS LITIGATION	HUANG YBARRA SINGER & MAY LLP	\$0.00	11
08	LEGAL	C16392	01	LEGAL ADVICE AND REPRESENTATION FOR SO CAL GAS LITIGATION	HUANG YBARRA SINGER & MAY LLP	\$0.00	6
16	ADMINISTRATIVE & HUMAN RESOURCES	C16399	01	LANDSCAPE AND TREE MAINTENANCE SERVICES	SO CAL LAND MAINTENANCE INC	\$17,435.00	
20	MEDIA OFFICE	C17023	36	MEDIA, ADVERTISING AND PUBLIC OUTREACH CAMPAIGN FOR CHECK BEFORE YOU BURN PROGRAM	WESTBOUND COMMUNICATIONS INC	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17024	27	PROVIDE UP TO 3,000 ELECTRIC POWERED LAWN MOWERS FOR THE LAWN MOWER EXCHANGE EVENTS FOR THE RESIDENTS OF THE SOUTH COAST AIR BASIN	CHEVRON NORTH AMERICA, INC	\$0.00	11
27	INFORMATION MANAGEMENT	C17048	01	ONBASE AGENDA TRACKING SYSTEM MIGRATION	HYLAND SOFTWARE, INC.	\$8,900.00	
27	INFORMATION MANAGEMENT	C17057	01	CONSOLIDATION OF MAPPING FUNCTIONS ON SCAQMD'S WEBSITE	PSOMAS	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17063	81,17	PROP 1B TRUCK REPLACEMENT PROGRAM	CALPORTLAND COMPANY	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17063	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CALPORTLAND COMPANY	\$0.00	11
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	\$25,000.00	
08	LEGAL	C17132	01	EVALUATE OPERATIONS AND PROCEDURES OF THE SCAQMD HEARING BOARD	SERVE TO LEAD GROUP INC	\$5,000.00	
08	LEGAL	C17154	01	LEAD ABATEMENT CONSULTANT SERVICES	OCCUPATIONAL KNOWLEDGE INTERNATIONAL	\$5,000.00	

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17161	32	REPOWER OF 1 MAIN ENGINE OF A MARINE VESSEL	CRYSTAL PACIFIC, LLC	\$0.00	11
16	ADMINISTRATIVE & HUMAN RESOURCES	C17193	01	FIVE YEAR LEASE OF PHOTOCOPIERS FOR WALK- UP AND PRINT SHOP - FY16-17	SOCAL OFFICE TECHNOLOGIES	\$20,871.00	
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17198	32	REPLACEMENT OF 1 OFF-ROAD AGRICULTURAL EQUIPMENT	DESERT CUSTOM FARMING INC.	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17202	32	REPLACEMENT OF 3 OFF-ROAD AGRICULTURAL EQUIPMENT	O & S HOLSTEINS LP	\$0.00	11
26	PLANNING RULE DEV & AREA SOURCES	C17228	01	INLAND EMPIRE ECONOMIC FORECAST AND INDUSTRY OUTLOOK	UCR FORECAST LLC	\$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17250	01	MEDIA SKILLS TRAINING	MILAGRO STRATEGY GROUP INC	\$0.00	6
35	LEGISLATIVE & PUBLIC AFFAIRS	C17289	01	2017 CESAR CHAVEZ DAY OF REMEMBRANCE EVENT WHEELCHAIR SERVICES	CRCD ENTERPRISES	\$228.00	
35	LEGISLATIVE & PUBLIC AFFAIRS	C17308	01	IMPROVEMENT TO THE "INTRODUCTION TO SCAQMD" BROCHURE	CURRAN & CONNORS, INC.	\$0.00	6
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G13212	80	PURCHASE 6 CNG SCHOOL BUSES WITH FIRE SUPPRESSION SYSTEMS AND ASSOCIATED INFRASTRUCTURE	FULLERTON JOINT UNION HIGH SCHOOL DIST	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16054	80,17	REPLACE TWO DIESEL SCHOOL BUSES WITH ELECTRIC BUSES	COLTON JOINT UNIFIED SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16085	80	PURCHASE 1 CNG SCHOOL BUS WITH FIRE SUPPRESSION SYSTEM AND ASSOCIATED INFRASTRUCTURE	ALTA LOMA SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16110	80	LOWER EMISSION SCHOOL BUS REPLACEMENT PROGRAM	HUNTINGTON BEACH UNION HIGH SCH DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16113	80,17	LOWER EMISSION SCHOOL BUS REPLACEMENT PROGRAM	LOS ALAMITOS UNIFIED SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16118	80,17	LOWER EMISSION SCHOOL BUS REPLACEMENT PROGRAM	NEWPORT-MESA UNIFIED SCHOOL DISTRICT	\$0.00	11

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44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16120	80,17	PURCHASE 1 PROPANE SCHOOL BUS WITH A FIRE SUPPRESSION SYSTEM AND ASSOCIATED INFRASTRUCTURE	OCEAN VIEW SCHOOL DISTRICT	\$0.00	11
44	SCIENCE & TECHNOLOGY ADVANCEMENT	G16133	80	PURCHASE 1 CNG SCHOOL BUS WITH A FIRE SUPPRESSION SYSTEM AND ASSOCIATED INFRASTRUCTURE	WALNUT VALLEY UNIFIED SCHOOL DISTRICT	\$0.00	11
44	MSRC	ML09036	23	PURCHASE 35 HEAVY-DUTY NATURAL GAS VEHICLES	CITY OF LONG BEACH	\$0.00	6
44	MSRC	ML11029	23	INSTALL LPG FUELING STATION AND UPGRADE EXISTING CNG STATION	CITY OF SANTA ANA	\$0.00	6
44	MSRC	ML12041	23	ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	CITY OF ANAHEIM	\$0.00	6
44	MSRC	ML12041	23	ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	CITY OF ANAHEIM	\$0.00	6
44	MSRC	ML12051	23	ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	CITY OF BELLFLOWER	\$0.00	6
44	MSRC	ML14018	23	PURCHASE 27 HEAVY-DUTY NATURAL GAS VEHICLES	CITY OF LOS ANGELES	\$0.00	6
44	MSRC	ML14021	23	INSTALL A CLASS 1 BIKEWAY	COUNTY OF RIVERSIDE	\$0.00	6
44	MSRC	ML14027	23	INSTALL AND MAINTAIN CNG FUELING STATION IN DOWNEY	COUNTY OF LOS ANGELES	\$0.00	11
44	MSRC	ML14030	23	BICYCLE INFRASTRUCTURE & EDUCATION	COUNTY OF LOS ANGELES	\$0.00	6
44	MSRC	ML14054	23	UPGRADE MAINTENANCE FACILITY	CITY OF TORRANCE	\$0.00	11
44	MSRC	ML14054	23	UPGRADE MAINTENANCE FACILITY	CITY OF TORRANCE	\$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	ML16048	23	INSTALL A BICYCLE LOCKER AND EV CHARGING STATIONS	CITY OF PLACENTIA	\$0.00	6
44	MSRC	ML16051	23	IMPLEMENT 'OPEN STREETS' EVENT	CITY OF SOUTH PASADENA	\$0.00	11
44	MSRC	MS12011	23	NEW PUBLIC ACCESS CNG STATION-PICO RIVERA	SOUTHERN CALIFORNIA GAS COMPANY	\$0.00	11

South Coast Air Quality Management District
Contract Activity Report
July 1, 2016 - June 30, 2017

DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	MSRC	MS12024	23	INSTALL A CNG FUELING STATION IN MURRIETA	SOUTHERN CALIFORNIA GAS COMPANY	\$0.00	11
44	MSRC	MS12034	23	PURCHASE 2 MEDIUM AND 7 MEDIUM-HEAVY DUTY ON-ROAD VEHICLES	WARE DISPOSAL, INC.	\$0.00	6
44	MSRC	MS12080	23	EXPAND CNG STATION	CITY OF PASADENA	\$0.00	6
44	MSRC	MS12082	23	CONSTRUCT A NEW LIMITED ACCESS CNG FUELING STATION AND OPERATE STATION FOR 5 YEARS	CITY OF LOS ANGELES	\$0.00	6
44	MSRC	MS14058	23	SIGNAL SYNCHRONIZATION PARTNERSHIP PROGRAM	ORANGE CO TRANSPORTATION AUTHORITY	\$0.00	6
44	MSRC	MS14079	23	INSTALL LIMITED ACCESS CNG STATION	WASTE RESOURCES INC	\$0.00	6
44	MSRC	MS14082	23	INSTALL PUBLIC ACCES CNG STATION	GRAND CENTRAL RECYCLING & TRANSFER STATION	\$0.00	6
44	MSRC	MS14090	23	EXPAND CNG FUELING STATION	CITY OF MONTEREY PARK	\$0.00	11
44	MSRC	MS16001	23	IMPLEMENT TRANSIT SERVICE TO DODGER STADIUM	LOS ANGELES COUNTY METROPOLITAN	\$0.00	11
44	MSRC	MS16093	23	IMPLEMENT MOBILE TICKETING SYSTEM	ORANGE CO TRANSPORTATION AUTHORITY	\$0.00	11
Subtotal						\$625,881.76	

V. TERMINATED CONTRACTS-PARTIAL/NO WORK PERFORMED

44	SCIENCE & TECHNOLOGY ADVANCEMENT	C12233	81	INSTALLATION OF A GRID-BASED, SHORE POWER SYSTEMS AT UP TO 12 BERTHS AT THE PORT OF LONG BEACH	PORT OF LONG BEACH	-\$1,292,464.28	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14178	32	REPOWER 4 OFF-ROAD VEHICLES	DAN COPP CRUSHING CORPORATION	-\$440,757.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C14348	81	PROP 1B TRUCK REPLACEMENT PROGRAM	SOUTHERN COUNTIES TERMINALS	-\$55,000.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15035	81	PROP 1B TRUCK REPLACEMENT PROGRAM	CLAUDIA HORTA	-\$40,000.00	7

**South Coast Air Quality Management District
Contract Activity Report
July 1, 2016 - June 30, 2017**

DEPT ID	DEPT NAME	CONTRACT NUMBER	FUND CODE	DESCRIPTION	VENDOR NAME	CONTRACT AMOUNT	FOOT NOTE
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15402	81	PROP 1B TRUCK REPLACEMENT PROGRAM	R.W. ZANT CO.	-\$100,000.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C15470	32	REPOWER 24 OFF-ROAD VEHICLES	RRM PROPERTIES, LTD	-\$389,074.56	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16148	32	REPOWER 1 OFF-ROAD VEHICLE	JKM EQUIPMENT INC	-\$14,923.64	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16186	32	REPOWER 9 DIESEL POWERED YARD TRUCKS TO ELECTRIC POWER	YRC, INC DBA YRC FREIGHT	-\$869,592.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16196	32	REPLACEMENT OF 8 OFF-ROAD VEHICLES	SUNNY SLOPE TREE FARM, INC	-\$62,400.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C16372	81	PROP 1B TRUCK REPLACEMENT PROGRAM	SAND MATERIALS & AGGREGATE SALES INC	-\$60,000.00	7
02	GOVERNING BOARD	C17017	01	BOARD ASSISTANT SERVICES FOR DWIGHT ROBINSON	THOMAS A. FUENTES, JR	-\$3,022.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17129	32	REPOWER OF EIGHT MAIN & FOUR AUXILIARY ENGINES OF THREE MARINE VESSELS	PACIFIC TUGBOAT SERVICES	-\$533,056.00	7
08	LEGAL	C17132	01	EVALUATE OPERATIONS AND PROCEDURES OF THE SCAQMD HEARING BOARD	SERVE TO LEAD GROUP INC	-\$30,000.00	7
44	SCIENCE & TECHNOLOGY ADVANCEMENT	C17212	32	REPLACEMENT OF 2 OFF-ROAD AGRICULTURAL EQUIPMENT	ORGANIC DEPOT LLC	-\$1,005,342.00	7
44	MSRC	ML12016	23	PURCHASE 1 NATURAL GAS HEAVY-DUTY VEHICLE AND INSTALL ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	CITY OF CATHEDRAL CITY	-\$60,000.00	7
44	MSRC	ML12051	23	ELECTRIC VEHICLE CHARGING INFRASTRUCTURE	CITY OF BELLFLOWER	-\$70,000.00	7
44	MSRC	ML14022	23	PURCHASE 10 HEAVY-DUTY NATURAL GAS VEHICLES	COUNTY OF LOS ANGELES	-\$30,000.00	7
Subtotal						-\$5,055,631.48	

South Coast Air Quality Management District
Contract Activity Report
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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

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 COMMITTEE
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.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 21

REPORT: Administrative Committee

SYNOPSIS: The Administrative Committee held a meeting on Friday, July 14, 2017. 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), Mayor Pro Tem Ben Benoit (Vice Chair), and Dr. Clark E. Parker, Sr.

Absent: Council Member Judith Mitchell

Call to Order

Chair Burke called the meeting to order at 10:27 a.m.

DISCUSSION ITEMS:

1. **Board Members' Concerns:** None to report.
2. **Chairman's Report of Approved Travel:** As noted on the travel report, Vice Chair Benoit, Dr. Lyou and Council Member Robinson will attend and provide presentations regarding air quality issues at the CCEEB Summer Issues Seminar in Squaw Valley, California, July 16-19, 2017. Dr. Lyou and Council Member Mitchell will attend the Asilomar Biennial Conference on Transportation and Energy in Pacific Grove, California, August 22-25, 2017.
3. **Report of Approved Out-of-Country Travel:** None to report.
4. **Review September 1, 2017 Governing Board Agenda:** None to report.

5. **Status Report on Major Ongoing and Upcoming Projects for Information Management:** Chief Administrative Officer Michael O’Kelly presented the status report on past and future Information Management projects. The website evaluation improvements are continuing to migrate content and are expected to be deployed in approximately 60 days. The GIS project is a long-term project, with nine of the 15 projects to be completed during FY 2017-18. The online permitting prototype project, which includes dry cleaner and gas station application modules, is nearing deployment, with users finishing up testing in the next few weeks. With Assistant Deputy Executive Officer Chris Marlia’s upcoming retirement, the IT Review will be delayed for six weeks until Mr. Marlia’s replacement can guide that project from the beginning. (No motion required.)

6. **Update on Board & Committee Package Improvements:** Mr. O’Kelly reported that the Agenda Tracking System is currently being updated to become more efficient at the staff level and it is planned for the updated system to go live for the October 2017 Board meeting. Regarding the agency’s website, Dr. Burke commented that he has been requesting website improvements for the last 15 years and is going to ask the new Information Management’s Assistant Deputy Executive Officer to work with Vice Chair Benoit to continue to improve the website. Vice Chair Benoit inquired when there is a webcast, it should be easily accessible by placing a hot button in the center of the home page so that users can be linked directly to YouTube. He added that Wi-Fi connectivity should be looked at as well. (No motion required.)

ACTION ITEMS:

7. **Approval of Compensation for Board Member Assistant(s)/Consultant(s):** Compensation for consideration was included for Mayor Michael Cacciotti’s Board Consultants for FY 2017-18; four existing Board Consultants are returning, with a new Board Consultant added, Tim Sandoval, Mayor/City of Pomona.

Moved by Parker; seconded by Benoit; unanimously approved.

Ayes: Benoit, Burke, Parker

Noes: None

Absent: Mitchell

8. **Board and Committee Meeting Schedule:** Chief Operating Officer Jill Whynot reported that this item was to afford discussion on the scheduling issue raised by Supervisor Nelson at the June Board meeting about the scheduling of Board meetings. Supervisor Nelson had noted that Board meetings at times varied from the usual schedule (first Friday of the month), and that such deviation presented significant scheduling conflicts for Members who also serve on other boards; he suggested that when circumstances force deviation from the first-Friday schedule,

the SCAQMD Board go dark those months. In response to a query from Dr. Burke, Ms. Whynot noted that such deviation can arise relative to when the New Year's Day (January 1) or Independence Day (July 4) holidays fall in a given year. Dr. Burke noted that the annual calendar is approved by the Board at the beginning of each year; he acknowledged occasional scheduling inconvenience to Board Member Nelson's service on the OCTA (Orange County Transportation Authority) board, but stated that in general, he felt the public interest would not be served by SCAQMD's Board going dark to accommodate individual Members' schedules. Further discussion and comment ensued, including comparisons with scheduling practices of the SCAQMD Hearing Board. (No Motion Required)

9. **Authorize the Executive Officer to Execute an Indemnification Agreement with Tesoro Refinery and Marketing LLC (“Tesoro”):** General Counsel Kurt Wiese reported this item relates to the Tesoro Refinery integration project in the cities of Carson and Wilmington. SCAQMD is being sued over a CEQA document, and under SCAQMD rules, Tesoro is required to indemnify the SCAQMD’s litigation costs, subject to an indemnification agreement that must be approved by the Administrative Committee. An indemnification agreement has been negotiated with Tesoro and it is recommended that the agreement be approved.

Moved by Parker; seconded by Benoit; motion failed.

Ayes: Benoit, Parker
Noes: Burke
Absent: Mitchell

After several other items were considered, Dr. Parker referred to this item and asked Dr. Burke if the agreement means SCAQMD can be reimbursed for legal costs, would he reconsider his vote. Dr. Burke responded yes.

A roll call was conducted on whether to reconsider the item. Moved by Parker; seconded by Benoit, unanimously approved.

Ayes: Benoit, Burke, Parker
Noes: None
Absent: Mitchell

A roll call vote was then taken on whether to approve the item. Moved by Benoit; seconded by Parker; unanimously approved.

Ayes: Benoit, Burke, Parker
Noes: None
Absent: Mitchell

10. **Execute Contract for Insurance Brokerage Services:** Mr. O’Kelly reported that an RFP is issued every three years for insurance brokerage services. SCAQMD’s current insurance broker, Alliant Insurance Services, is proposing a 2% increase from their existing contract. Although there was a lower cost vendor, the experience of the current provider was taken into consideration and staff believes it is in the best interest of the SCAQMD to execute a contract with Alliant Insurance Services, as they have been able to obtain cost savings and they work well with the SCAQMD in claim processing.

Moved by Benoit; seconded by Parker; unanimously approved.

Ayes: Benoit, Burke, Parker
Noes: None
Absent: Mitchell

11. **Approve Position Reclassification in Information Management and Compliance & Enforcement:** Mr. O’Kelly reported that an Information Management (IM) Computer Operator had requested a classification review of his position due to changes in responsibilities. A consultant was hired to review the classifications within IM to determine whether the job specs were appropriate to today’s technology responsibilities and it was determined that they were not. A total of 13 various positions were reviewed and it was recommended that job descriptions be updated to reflect changes in responsibilities and in some cases to increase the pay. Out of the 13 positions, six of them would have a pay increase, and the remaining would have new job titles and classifications. There is also an Office Assistant in the Compliance & Enforcement division doing Staff Assistant work and it is requested that that position be reclassified as well. In addition, the Board previously approved a Director of Communications position in Legislative, Public Affairs & Media (LPAM), which is required to be included into the Salary Resolution.

Moved by Parker; seconded by Benoit; unanimously approved.

Ayes: Benoit, Burke, Parker
Noes: None
Absent: Mitchell

12. **Close and Transfer Residual Balances from Five Special Revenue Funds and One Enterprise Fund:** Mr. O’Kelly reported that this item is to close and transfer residual balances from various accounting funds. There was discussion during the Budget hearings regarding SCAQMD funds and whether residual money will be spent on projects. The first step in evaluation has been for staff to determine which fund balances can be readily transferred to other appropriate funds. SCAQMD currently has a total of 55 special funds. Special Revenue Funds

are not part of the annual budget process, but instead are created to record transactions applicable to specific revenue sources having legal restrictions for specific purposes. All transactions in Special Revenue Funds are approved by the Board on an as needed basis. It is requested that the subject residual balances be transferred to other funds that are more regularly used. The largest item is the headquarters' CNG fueling station fund, which is estimated at \$1.2 million. When the CNG station was created in 2003, it was intended to eventually use those monies to improve the infrastructure of the station, but the Board in 2015 contracted with a third party to operate that station who now update the infrastructure themselves. It is being recommended to move those funds to the Infrastructure Improvement Fund to potentially be used at a later date for headquarters infrastructure projects, due to the aging building. It is not requested to approve spending any of the money at this time; it would come back to the Board for approval when needed. There ensued further discussion wherein Mr. O'Kelly detailed applicable legal restrictions and/or requirements for the transfers of funds.

Moved by Benoit; seconded by Parker; unanimously approved.

Ayes: Benoit, Burke, Parker
Noes: None
Absent: Mitchell

13. **Issue RFP for Legislative Representation in Sacramento, California:** Deputy Executive Officer/Legislative, Public Affairs & Media Derrick Alatorre reported this item is to issue an RFP for Legislative consultants in Sacramento. The current contract expires December 31, 2017. Dr. Burke inquired whether this applies to all of the Sacramento consultants. Mr. Alatorre responded yes. Dr. Burke inquired whether they are at the end of their extensions. Mr. Alatorre responded yes, this is the last year of their two one-year extensions. Dr. Burke inquired when this item will come back to the Board. Mr. Alatorre responded the RFP will be issued at September's Board meeting, the RFP will be out for a month and it is anticipated that the proposals will be submitted in October, after which time the proposals will be brought to either the Legislative Committee or Administrative Committee in November and then to the full Board in December. Dr. Burke commented that if the proposals are taken to Legislative Committee it will delay the process by a month. Mr. Alatorre responded that to avoid a delay, the proposals could be taken to Administrative Committee for review, and Dr. Burke concurred with this suggestion.

Moved by Benoit; seconded by Parker; unanimously approved.

Ayes: Benoit, Burke, Parker
Noes: None
Absent: Mitchell

WRITTEN REPORT:

14. **Local Government & Small Business Assistance Advisory Group Minutes for the May 12, 2017 Meeting:** Mr. Alatorre reported that this item is a written report.

OTHER MATTERS:

15. **Other Business:**
There was no other business.
16. **Public Comments:**
There were no public comments.
17. **Next Meeting Date:**
The next regular Administrative Committee meeting is scheduled for Friday, September 8, 2017.

Adjournment

Meeting adjourned at 11:06 a.m.

Attachment

Local Government & Small Business Assistance Advisory Group Minutes for the May 12, 2017 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 MAY 12, 2017 MEETING MINUTES

MEMBERS PRESENT:

Ben Benoit, Mayor Pro Tem, City of Wildomar and LGSBA Chairman
Janice Rutherford, Supervisor, Second District, San Bernardino County
Felipe Aguirre
Rachelle Arizmendi, Mayor, City of Sierra Madre
Paul Avila, P.B.A. & Associates
Geoffrey Blake, Metal Finishers of Southern California/All Metals
LaVaughn Daniel, DancoEN
John DeWitt, JE DeWitt, Inc.
Bill LaMarr, California Small Business Alliance
Rita Loof, RadTech International
Eddie Marquez, Paramount Petroleum
Cynthia Moran, Council Member, City of Chino Hills
David Rothbart, Los Angeles County Sanitation District

MEMBERS ABSENT:

Todd Campbell, Clean Energy
Maria Elena Kennedy, Kennedy Communications

OTHERS PRESENT:

Mark Abramowitz, Board Member Consultant (*Lyou*)
David Czmanske, Board Member Consultant (*Cacciotti*)
Ruthanne Taylor-Berger, Board Member Consultant (*Benoit*)
Mark Taylor, Board Member Consultant (*Rutherford*)

SCAQMD STAFF:

Derrick Alatorre, Deputy Executive Officer
Laki Tisopulos, Deputy Executive Officer
Jason Low, Assistant Deputy Executive Officer
Fred Minassian, Assistant Deputy Executive Officer
Fabian Wesson, Assistant Deputy Executive Officer/Public Advisor
Andrea Polidori, Atmospheric Measurements Manager, Monitoring
Philip Crabbe, Community Relations Manager
Nancy Feldman, Principal Deputy District Counsel
Elaine-Joy Hills, AQ Inspector II
Lori Langrell, Secretary

Agenda Item #1 - Call to Order/Opening Remarks

Supervisor Janice Rutherford called the meeting to order at 11:30 a.m.

Agenda Item #2 – Approval of April 14, 2017 Meeting Minutes/Review of Follow-Up/Action Items

Supervisor Rutherford called for approval of the April 14, 2017 meeting minutes.

Mr. Bill La Marr inquired regarding his question on RECLAIM facilities subject to an aggregated emissions cap, if there is a plan to de-aggregate these facilities under the program. He doesn't recall any further requests, but merely wanted to know if a phase out is being worked on, and whether or not there is a plan. Dr. Laki Tisopulos suggested the questions be directed to the working group as he is not working on this therefore, cannot provide an answer.

After discussion, the Minutes were approved unanimously.

Agenda Item #3 – Follow Up/Action Items

Mr. Derrick Alatorre indicated there were three action items arising out of the April 14th meeting. The first was to agendize a presentation on the commercial leaf blower program, which will be included in a future meeting. The second was to agendize a presentation on Senate Bill 1, which is being presented today, and lastly to receive information regarding driverless trucks, to which articles are available today as a handout.

Agenda Item #4 – Using Advanced Remote Sensing Technologies to Measure Emissions from Refineries and Other Sources

Dr. Andrea Polidori provided a summary of the results of a two and a half month long measurement campaign aimed at characterizing and qualifying emissions of VOC's, NOx, and SO₂ from refineries, oil wells, treatment facilities, gas stations, and other sources in the South Coast Air Basin.

Mr. John DeWitt asked if refineries were being measured in the South Coast basin only, or all over the world. Dr. Polidori replied the background slide shows refineries all over the world.

Mr. LaMarr inquired, with respect to gas stations and oil wells, if what staff is proposing duplicating what the California Air Resources Board (CARB) has done with vapor recovery or underground storage tanks. Dr. Polidori indicated that the study is about measurements, and the optical remote sensing has been developed throughout the years and is the most commonly used. This was developed by Chevron to measure the actual emissions from these sources.

Mr. LaMarr asked, in the course of measuring, if it impedes with normal operating procedures. Dr. Polidori replied no. Mr. LaMarr further asked if the technology in showing underground leak detection is the same technology used in Aliso Canyon. Dr. Polidori indicated it is not the same but similar.

Mr. DeWitt asked which refinery the presentation referred to. Dr. Polidori replied Tesoro.

Mr. LaMarr inquired regarding VOCs not being created equally, sometimes having abnormalities or being undetected, if these are the same VOCs that end up on mobile sources, and if it would impact rulemaking on stationary sources where VOCs are present. Dr. Tisopulos replied that we are underestimating inventory from seven sectors, we must move forward with our plans, and pay close attention to those higher emissions.

Mr. David Rothbart asked if a problem is found, if it is typical, and how the emissions are estimated. Dr. Tisopulos replied that with oil wells and gas, the vendors get statistical measurements, and extrapolate the rest of the oil wells and gas stations. With respect to the slide comparing refinery emissions from six large refineries, what is being reported to us under conventional methodologies shows a variance, grossly underestimating VOC emissions.

Mr. La Marr inquired if this would change when refineries switch to summer fuel. Dr. Tisopulos replied he does not believe it will vary that much. In 2015, measurements were taken in September, and the measurements taken in 2016 was while refineries were switching fuels.

Mr. Paul Avila asked if the flux sense and camera manufacturers make all the same equipment, and what happens when both companies take measurements with different results. Dr. Polidori indicated it has happened with a difference of about ten points. They all indicated a leak with varying emission rates, but all three were within 20% of each other.

Ms. Rachelle Arizmendi asked what the intent of the data is, and if it is available to the public. Dr. Polidori replied that we are currently building a website, and that the report is about a month old. Dr. Polidori stated that the review period ends Wednesday, May 17, and, for the most part, staff intends to conduct more studies. SCAQMD plans to contract with a flux sense manufacturer who will conduct studies every two weeks for the next two years. The intent is to see if this type of technology can be used as an alarm system for VOC concentration in communities. Dr. Jason Low also commented that we want to get feedback to the facility so they are aware of potential leaks, and they can investigate and make repairs if necessary.

Mr. DeWitt inquired regarding service stations, if there were any sites identified that had installed enhanced vapor recovery equipment. Dr. Polidori indicated measurements were taken at a new Costco station where emissions were minimal, whereas problems were found at older, smaller stations. Dr. Tisopulos also indicated that there is very little correlation between emissions at super large stations, such as Costco, where stations are well-maintained and have minimal emissions. Smaller stations may not have the means to maintain their equipment. Technology like this is fast and allows us and the operator of the source to do repairs on equipment quickly before the leak is out of control.

Mr. La Marr asked if the District is looking at the coatings industry. Dr. Tisopulos indicated that this is not the best technology to measure emissions in this industry.

Agenda Item #5 – FY 2016-17 Carl Moyer Program (CMP) Award

Mr. Fred Minassian provided an overview of the resolution recognizing funds and accepting terms and conditions for FY 2016-17 Carl Moyer Program (CMP) Award and review of Program Announcements for Carl Moyer Program and SOON provision.

Mr. Avila inquired, as most busses have already been upgraded, if the shift is for off-road and tractors. Mr. Minassian replied on-road trucks have converted to CNG, then we went to off-road, marine vessels, tractors, etc. Even with the CNG bus fleet, they can repower or replace engines because the old standard (pre-2010) was at 1.2, which can now be at 0.02. Mr. Avila further asked regarding the upgrade with trains and railroads, what the gray area is. Mr. Minassian r that we have provided \$110 million to replace 40 locomotives from Tier 0 to Tier 4 for the project we are doing with Metrolink, and they are the first commuter rail system in the nation to do that. The remaining money has been provided by

Metrolink bond, and public funds. We are careful with the contract, ensure that the money co-funds what is allowable, and we tailor our contract on a case by case basis.

Mr. LaMarr asked who is in opposition of AB 1274. Mr. Alatorre indicated there is no official opposition, but there are groups with concerns such as car dealers association and smog check stations.

Agenda Item #6 – Senate Bill 1 (Beall) – Transportation Funding

Mr. Philip Crabbe provided an update on the recent passage of Senate Bill 1 (SB 1) the comprehensive statewide infrastructure legislative vehicle, and its potential impacts on South Coast Air Quality Management District.

Mr. Avila asked if there will be a concerned citizen oversight board, or if the money will just go into the general fund. Mr. Crabbe replied it is a constitutional amendment to use for transportation and infrastructure, there is oversight in all, and even local governments must spend money on what it is earmarked for.

Mr. DeWitt inquired whether this includes money for the bullet train. Mr. Crabbe commented he has not seen much regarding the bullet train.

Mr. LaMarr asked pertaining to the retirement of vehicles, if it is commercial or personal. Mr. Crabbe replied commercial.

Agenda Item #7 –Monthly Report on Small Business Assistance Activities

No comments.

Agenda Item #8 - Other Business

Chair Benoit introduced new LGSBA member, Mr. Eddie Marquez, to the advisory group. Mr. Marquez shared the company he is with, and organizations he is involved with.

Ms. Rita Loof inquired about public outreach suggested by staff at the last governing board meeting. Ms. Loof further indicated that the printing industry has requested outreach, and asked what those efforts look like.

Action Item: Agendize a presentation on public outreach, and what efforts to the printing industry may look like.

Chair Benoit commented a presentation on issues with low NOx burners, and outreach to all other people that have those burners, would be good to hear as well.

Agenda Item #9 - Public Comment

No comments.

Adjournment

The meeting adjourned at 12:57 p.m.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 22

REPORT: Legislative Committee

SYNOPSIS: The Legislative Committee held a meeting on Friday, July 14, 2017. The following is a summary of the meeting.

Agenda Item	Recommendation/Action
AB 246 (Santiago) Hazardous waste: facilities: permits: fence-line monitoring systems	WORK with AUTHOR
AB 1036 (McCarty) Organic waste: composting	OPPOSE
SB 615 (Hueso) Salton Sea restoration	SUPPORT with AMENDMENTS
SB 701 (Hueso) Salton Sea Obligations Act of 2018	NO RECOMMENDATION

RECOMMENDED ACTION:

Receive and file this report, and approve agenda items as specified in this letter.

Dr. William A. Burke, Acting Chair
Legislative Committee

DJA:PFC:MJK:jns

Committee Members

Present: Dr. William A. Burke (Acting Chair), Supervisor Shawn Nelson (*arrived at 9:51 a.m.*), and Dr. Clark E. Parker, Sr.

Absent: Council Member Judith Mitchell (Chair), Council Member Joe Buscaino, Mayor Pro Tem Larry McCallon, and Supervisor Janice Rutherford

Call to Order

Dr. William A. Burke was appointed to the committee as Chairman for this meeting. The meeting was called to order at 9:00 a.m.

DISCUSSION ITEMS:

1. Update on Federal Legislative Issues [Attachment 2]

SCAQMD's federal legislative consultants (Carmen Group, Cassidy & Associates, and Kadesh & Associates) each provided a written report on various key Washington, D.C. issues. Mr. Gary Hoitsma of the Carmen Group, Mr. Kaleb Froehlich and Ms. Amelia Jenkins of Cassidy & Associates and Mr. Mark Kadesh of Kadesh & Associates gave verbal updates as well.

Mr. Hoitsma briefly updated the Committee on who might be the Trump Administration appointee to the Council on Environmental Quality (CEQ), the White House agency that deals with environmental issues. No formal announcement has been made for a chairman of that agency; however, a leak to the media stated that a likely nominee could be Kathleen Hartnett White of Texas, who was with the Texas Commission on Environmental Quality. Mr. Hoitsma also stated that the U.S. Department of Energy's (DOE) announced that their Vehicle Technology Office issued \$19 million for 22 research projects relating to advanced research regarding batteries and engine technology.

In response to an inquiry from Dr. Burke regarding billions of dollars in DOE research grants and the Trump Administration, Mr. Hoitsma stated that it would be possible to talk with the Administration to see what their plans would be for that funding. Mr. Hoitsma noted that the Administration would likely redirect and cut back some of that money, but suggested meeting with the Vehicle Technology Office or with other higher-level staff regarding the funding, and that he would be happy to set up those meetings.

Mr. Froehlich stated that the comprehensive energy legislation introduced by Senators Lisa Murkowski and Maria Cantwell has been moved through the so-called Rule XIV procedure, bypassing committee to go directly to the Senate floor. Mr. Froehlich stated that the legislation is important for SCAQMD because it includes the Vehicle Innovation Act, which will authorize \$250 million per year for DOE grants supporting vehicle technology advancement. Mr. Froehlich reminded the Committee that SCAQMD has previously written support letters regarding this Act and recommended that staff write an additional letter of support for the legislation. Mr. Froehlich also mentioned that July 20 would consist of important nomination hearings for the DOE. David Jonas of Pennsylvania will be the General Counsel nominee and Paul Dabbar will be the DOE Undersecretary for Science nominee. Mr. Froehlich suggested that SCAQMD prepare questions to pose to these two nominees.

Ms. Jenkins reported that the Ozone Standard Implementation Act would be moving to the House floor next week. The bill would delay the ozone standard date and expand the review period from five years to ten years. Ms. Jenkins also stated

that the research and development money at the DOE has been getting a lot of attention by both the House and Senate appropriations staff. The Trump Administration budget is attempting to move the money more towards early development research, in spite of the fact that it has traditionally been used for later development research. The Senate is likely to push back. Ms. Jenkins also stated that although Secretary of Energy Rick Perry has a lot of influence on what funding opportunities look like, Congress still has a lot of say in what stage those investments are made, and that to influence the funding, especially on the vehicle technology side, it would require a dual strategy focusing on both Congress and the Administration.

In response to an inquiry from Dr. Burke, Mr. Wayne Nastri, Executive Officer, stated that SCAQMD thinks that deployment is currently much more important than early development, as it gives the most, and most timely, clean air benefits. A discussion ensued regarding recent federal air quality funding increases including for Diesel Emission Reduction Act (DERA) funds and targeted airshed grants, as well as future funding strategies and opportunities, and previously received funding.

Mr. Kadesh reported that the DERA funding levels have increased from \$60 million in FY 2017 to \$75 million in FY 2018 and that the targeted airshed grants have also increased from \$30 to \$40 million for FY 2018 as well.

Mr. Kadesh stated that the Senate has introduced a bipartisan DERA reauthorization bill through Senators John Barrasso and James Inhofe on the Republican side and Senators Tom Carper and Sheldon Whitehouse on the Democratic side. Mr. Kadesh stated that it is a five-year reauthorization bill that has been referred to committee and that Kadesh & Associates would continue monitoring the bill.

2. **Update on State Legislative Issues [Attachment 3]**

SCAQMD's state legislative consultants (Joe A. Gonsalves & Son and Gonzalez, Quintana, Hunter & Cruz, LLC) provided written reports on various key issues in Sacramento. Mr. Paul Gonsalves of Joe A. Gonsalves & Son and Mr. Will Gonzalez of Gonzalez, Quintana, Hunter & Cruz, LLC gave verbal updates as well.

Mr. Gonsalves reported on upcoming deadlines in the state Legislature. Mr. Gonsalves stated that July 21 would be the last day for policy committees to hear bills, and that all bills would have to be out of policy committee by that date in order to continue through the process. All bills that do not make this deadline would become two-year bills. Additionally, Mr. Gonsalves stated that the Legislature would be in recess from July 21 to August 21. Mr. Gonsalves noted that Aug 21 to September 1 would consist of appropriations hearings and that September 1 is the last day for fiscal bills to be passed out appropriations committees and to the floor. September 1 to September 15 would consist of floor

sessions only and would be the last final push before the Legislature adjourns on September 15. Mr. Gonsalves commented that the next week would be busy with policy committees.

Mr. Gonzalez stated that there were two bills included in the package for cap-and-trade reauthorization, with each bill addressing its own topics and moving separately. AB 398 – E. Garcia would reauthorize the cap-and-trade program and includes language related to SCAQMD and preemption of local regulation of greenhouse gases (GHGs). The second bill, (AB 617 – C. Garcia), would create a new community monitoring program. However, Mr. Gonzalez noted that both bills are not ideal in terms of authorization for districts and preemptions for GHGs, and that the fundamental issue for SCAQMD and others is having sufficient implementation funding included in the bills. Further, funding generated by the auctions has been erratic in the past, and it is not precisely known how much will be generated in the future. Mr. Gonzalez said that SCAQMD has gotten commitments for air quality funding, after the cap-and-trade package is passed, from Governor Jerry Brown, president pro tem Kevin de Leon, and Speaker of the Assembly Anthony Rendon, but that there is no certainty over the timing and the amount of funding SCAQMD would receive. Mr. Gonzalez stated that the Governor as well as legislative leaders are working on a funding proposal and that SCAQMD has been heavily engaged in those conversations and has partnered with other stakeholders to push the message that there is a critical need for more air quality funding, both for monitoring and for mobile source pollution reduction.

Mr. Gonzalez said that the Governor and legislative leadership want to bring the cap-and-trade package up for a floor vote, but that the vote is unclear.

In response to an inquiry from Dr. Burke, Mr. Gonzalez stated that if not passed this year, this bill would likely be a high priority for next year. Mr. Gonsalves noted that if cap-and-trade reauthorization did not pass, Governor Brown has other alternatives and backup plans, including a possible ballot initiative. A discussion ensued regarding possible command-and-control approach and alternative plans to a cap-and-trade program.

ACTION ITEMS:

3. Recommend Positions on State Bills [Attachment 4]

AB 246 (Santiago) Hazardous waste: facilities: permits: fence-line monitoring systems

Ms. Monika Kim, Legislative Assistant, presented AB 246 to the Committee. Ms. Kim stated that the bill would require the Department of Toxic Substances Control (DTSC) to assess, in consultation with the relevant air pollution control district or air quality management district, that hazardous waste facilities under its jurisdiction within the

respective territory of each air district, determine if fence-line or other monitoring is necessary or appropriate to measure and record emissions at those facilities. The bill would require the DTSC to complete its assessment and report to the Legislature by September 1, 2018.

Ms. Kim explained staff's concerns and recommendation that provisions be added to the bill that provide for adequate reimbursement to local air districts to cover the additional costs that would be incurred to perform these required assessments. Fence-line monitoring in particular is extremely resource intensive and, in most cases, requires substantial initial and ongoing costs along with expertise to operate, review and interpret the data.

Further, certain air districts, such as SCAQMD, have large numbers of hazardous waste facilities located in their jurisdiction. In addition to the substantial financial resources needed to perform monitoring assessments, it would also take a significant amount of time to be able to properly assess all of these facilities. Staff is concerned that the September 1, 2018 report deadline included in this bill is too short and should be extended.

In response to an inquiry from Dr. Parker, staff clarified that this bill is imposing an unfunded mandate on SCAQMD. A discussion regarding the recommended position on the bill ensued.

Staff recommended a position of WORK with AUTHOR on this bill.

Moved by Parker; seconded by Burke; unanimously approved

Ayes: Burke, Nelson, Parker

Noes: None

Abstain: None

Absent: Buscaino, McCallon, Mitchell, and Rutherford

AB 1036 (McCarty) Organic waste: composting

Mr. Philip Crabbe, Community Relations Manager, presented AB 1036 to the Committee. Mr. Crabbe reported that this bill would: specify that the California Environmental Protection Agency (CalEPA) and the California Department of Food and Agriculture (CDFA) align, rather than coordinate, regulatory and internal policies to achieve the state's organic waste diversion and GHG reduction goals; require CalEPA to use the new goals established in 2016 by SB 1383, relating to short-lived climate pollutant (SLCP) emissions, in its assessment of the state's progress toward developing organic waste and recycling infrastructure; retroactively define "essential public service" to include, among other things: a prison, detention facility, police or firefighting facility, school, health care facility, landfill gas control or processing facility, sewage treatment works, composting facility, or water delivery operation, if owned and operated by a public agency; and for the purposes of permits and long-term emissions reductions relating to a composting facility, a district shall include in

calculations for baseline emissions of criteria air pollutants and GHGs the reduction in emissions resulting from not sending those organic materials to a landfill or directly applying them to land.

Mr. Crabbe explained that staff had the following concerns:

- 1) Requiring the crediting of emission reductions at landfills towards a composting permit may conflict with federal permitting requirements and state New Source Review programs. Under current law “baseline emissions” are considered to be either the actual emissions of the project, or the equipment’s potential to emit, and do not include speculative offsite reductions;
- 2) Air districts simply cannot change New Source Review requirements to be less stringent in order to reduce control requirements for compost facilities;
- 3) If the facilities included in this bill were classified as essential public services, they would be eligible for offsets from SCAQMD’s internal offset bank o, and would cause a strain on the bank’s supply. If the bank’s limits are reached, this could prevent the issuance of permits for sources already identified as essential public services, potentially causing a serious impact on public health;
- 4) Staff is also concerned that the requirement to “align” regulation may force all air district rules to be identical; and
- 5) Finally, SCAQMD staff would seek to encourage organic waste diversion to renewable biofuels, or zero or near-zero emission energy production, such as fuel cells, rather than composting.

In response to an inquiry from Dr. Burke, Ms. Barbara Baird, Chief Deputy Counsel, summarized that this bill would change the method of calculation of New Source Review requirements and therefore violate SB 288. The bill could result in the depletion of SCAQMD’s offset bank to the point where other facilities would be unable to receive offsets and therefore be unable to receive permits. In response to an inquiry from Dr. Parker, Ms. Baird stated that the bill conflicts with both state and federal law.

Staff recommended a position of OPPOSE on this bill.

Moved by Nelson; seconded by Parker; unanimously approved.

Ayes: Burke, Nelson, Parker

Noes: None

Abstain: None

Absent: Buscaino, McCallon, Mitchell, and Rutherford

SB 615 (Hueso) Salton Sea restoration

Ms. Fabian Wesson, Assistant Deputy Executive Officer/Legislative, Public Affairs & Media, stated that SB 615 would require the Natural Resources Agency (Agency) to develop a 10-year plan that would implement the memorandum of understanding

(MOU) between the Agency and the U.S. Department of Interior which was entered into in August 2016, The bill makes state and federal commitments to protect public health and ecosystem values at the Salton Sea, which are threatened by air quality impacts of a receding shoreline due to implementation of urban-ag water transfers known as the Quantification Settlement. Ms. Wesson also stated that the bill would rename the Salton Sea Restoration Act, passed in 2003, in honor of John J. Benoit.

Ms. Wesson informed the Committee that this bill is in line with the District's policy priorities regarding dust and air toxics mitigation and addressing adverse air quality issues associated with the receding shoreline of the Salton Sea. However, staff proposes an amendment to the bill to ensure that the 10-year plan developed by the Agency also includes sufficient planning content to implement hydrogen sulfide mitigation efforts.

Supervisor Nelson raised concerns regarding the very high cost of restoring the Salton Sea, which is not a naturally created body of water; these costs would be the subject of a separate bill allowing statewide voters to consider approving bond funding.

Dr. Burke stated that SCAQMD's concerns are not about the restoration of the Salton Sea, but about addressing the adverse public health impacts caused by the receding shoreline of the lake. A discussion occurred regarding the Salton Sea's effect on air quality and the extent of SCAQMD's involvement with the Salton Sea restoration efforts.

Staff recommended a position of SUPPORT with AMENDMENTS on this bill.

Moved by Parker; seconded by Burke; unanimously approved.

Ayes: Burke, Nelson, Parker

Noes: None

Abstain: None

Absent: Buscaino, McCallon, Mitchell, and Rutherford

SB 701 (Hueso) Salton Sea Obligations Act of 2018

Mr. Crabbe explained that SB 701 would allow statewide voters to consider approving a \$500 million general obligation bond for the November 2018 ballot, for purposes related to restoration of the Salton Sea and implementation of the Quantification Settlement Agreement.

Supervisor Nelson clarified that the bond is a statewide bond, not a local bond. A discussion occurred regarding the large estimated cost to restore the Salton Sea.

In response to an inquiry from Dr. Parker, Mr. Derrick Alatorre, Deputy Executive Officer/Legislative, Public Affairs & Media, stated that SCAQMD staff recommended supporting the bill because of concerns that the Salton Sea poses for air quality in the region, including extreme odors, fugitive dust, and air toxics from fertilizer runoff.

Dr. Parker raised concerns that the bond would not cover the entire cost of fixing the Salton Sea issues.

Mr. Nastri commented that the lake would not need to be fully restored and that instead, the release of materials contained in the lake bed would need to be minimized to forestall adverse air quality in the South Coast region. A discussion ensued regarding contrast between water diversion from Owens Lake and the Salton Sea.

Staff recommended a position of SUPPORT on this bill. The Legislative Committee did not take a position on this bill.

Ayes: None

Noes: None

Abstain: None

Absent: Buscaino, McCallon, Mitchell, and Rutherford

WRITTEN REPORT:

- 4. Report from SCAQMD Home Rule Advisory Group [Attachment 5]**
Please refer to Attachment 5 for the written report.

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 Legislative Committee meeting is scheduled for Friday, September 8, 2017 at 9:00 a.m.

Adjournment

The meeting adjourned at 10:23 a.m.

Attachments

1. Attendance Record
2. Update on Federal Legislative Issues
3. Update on State Legislative Issues
4. Recommended Positions on State Bills
5. SCAQMD Home Rule Advisory Group Report

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT LEGISLATIVE COMMITTEE MEETING Attendance – July 14, 2017

Dr. William A. Burke (Videoconference)..... SCAQMD Board Member
Dr. Clark E. Parker, Sr. (Videoconference)..... SCAQMD Board Member
Supervisor Shawn Nelson (Videoconference)..... SCAQMD Board Member

Mark Abramowitz Board Consultant (Lyou)
David Czamanske..... Board Consultant (Cacciotti)
Ron Ketcham..... Board Consultant (McCallon)

Gary Hoitsma (teleconference) The Carmen Group
Dal Harper (teleconference) The Carmen Group
Kaleb Froehlich (teleconference) Cassidy & Associates
Amelia Jenkins (teleconference) Cassidy & Associates
Ryan Mulvenon (teleconference) Cassidy & Associates
Mark Kadesh (teleconference) Kadesh & Associates
Chris Kierig (teleconference) Kadesh & Associates
Paul Gonsalves (teleconference) Joe A. Gonsalves & Son
Will Gonzalez (teleconference)..... Joe A. Gonsalves & Son
Jacob Moss (teleconference) Gonzalez, Quintana, Hunter & Cruz

Tom Gross Southern California Edison
Bill LaMarr..... California Small Business Alliance
Rita Loof RadTech
Debra Mendelsohn Sr. Field Deputy to L.A. County Supervisor Barger
David Rothbart Los Angeles County Sanitation Districts

Derrick Alatorre SCAQMD Staff
Debra Ashby..... SCAQMD Staff
Sam Atwood..... SCAQMD Staff
Barbara Baird SCAQMD Staff
Marc Carrel SCAQMD Staff
Tina Cox..... SCAQMD Staff
Philip Crabbe..... SCAQMD Staff
Monika Kim SCAQMD Staff
Megan Lorenz SCAQMD Staff
Wayne Nastri..... SCAQMD Staff
Robert Paud..... SCAQMD Staff
Philip Fine SCAQMD Staff
Mary Reichert..... SCAQMD Staff
William Sanchez SCAMQD Staff
Jeanette Short SCAQMD Staff
Laki Tisopulos..... SCAQMD Staff
Fabian Wesson SCAQMD Staff
Jill Whynot SCAQMD Staff

Lia Bilodeau Student Intern
Kendall Langrell..... Student Intern
Clea Lerner Student Intern
Mitchell McMahon..... Student Intern
Yoatzin Robles Student Intern
Mounir Saunders-Newton Student Intern



MEMORANDUM

To: South Coast AQMD Legislative Committee

From: Carmen Group

Date: June 29, 2017

Re: Federal Update -- Executive Branch

US DOT Announces INFRA Grant Program: On June 29, the Department of Transportation announced that the major project grant program authorized in the FAST Act of 2015, commonly known in the previous administration as FASTLANE, is being redubbed and restructured as the Infrastructure for Rebuilding America (INFRA) program. A Notice of Funding Opportunity (NOFO) in the Federal Register indicates that the newly-named INFRA discretionary grant program will make approximately \$1.5 billion available to projects that are in line with the Administration's principles to help rebuild America's crumbling infrastructure. Eligible INFRA project costs may include: "reconstruction, rehabilitation, acquisitions of property...environmental mitigation, construction contingencies, equipment acquisition, and operational improvements directly related to system performance." Under the evaluation criteria, more emphasis will be placed on leveraging non-federal dollars. The program will fund both large projects (at least \$25 million) and small projects (at least \$5 million) with at least 10 percent reserved for small projects and at least 25 percent reserved for rural projects.

Trump Highlights Infrastructure and Energy Issues: In June, the Administration sought to focus greater public attention on its emerging initiatives to promote greater infrastructure "investment" and energy "dominance." June 5-9 was dubbed to be "Infrastructure Week" culminating in a major speech by the President at the US. Department of Transportation. A main emphasis was to advance ways to streamline project delivery, in part by soliciting ideas from public and private entities, industry organizations and other transportation stakeholders. June 26-30 was dubbed to be "Energy Week" culminating in a major speech by the President at the U.S. Department of Energy. A main point of emphasis there was to tout an "all of the above" domestic energy strategy that would reduce regulatory burdens and drive up exports of US oil, natural gas and coal.

DOT IG Will Audit US Oversight of Public Private Partnerships: The U.S. Department of Transportation's Office of Inspector General announced in June that it will conduct an audit to determine whether the Federal Highway Administration (FHWA) is providing adequate oversight of P3 highway projects. The move is significant especially in light of the expectation that P3 projects are going to be a key part of the Administration's new infrastructure plan in which priority will be given to projects that demonstrate some form of significant local and/or private investment as a major prerequisite for federal funding.

Rick Perry on U.S. Withdrawal from Paris Climate Agreement: In a press briefing at the White House on June 27, Energy Secretary Rick Perry said, *"There was one fact missing from the headlines about the U.S. withdrawal from the Paris Agreement, and that is that the United States already leads the world in lowering emissions. And we've done this through innovation and technology, not by signing agreements."*

Sub-Cabinet Appointments of Note: The following are recent Trump Administration Sub-Cabinet appointment of special interest:

Department of Energy

- **James Owendoff to be Principal Deputy Assistant Secretary in the Office of Environmental Management,** dealing largely with nuclear waste cleanup issues. Previously served in various capacities in the Office of Environmental Management from 1995 to 2010.

Department of Transportation

- **Dan Elwell to be Deputy Administrator, Federal Aviation Administration.** Previously served as aviation advisor to DOT Secretary Elaine Chao and in senior positions at Airlines for America and at the Aerospace Industries Association. He was a graduate of the US Air Force Academy.

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CASSIDY&ASSOCIATES

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Washington, DC 20001-4886

(202) 347-0773
www.cassidy.com

To: South Coast Air Quality Management District

From: Cassidy & Associates

Date: June 28, 2017

Re: Federal Update – House of Representatives

Issues of Interest to SCAQMD

Ozone Standards Implementation Act:

The House Energy & Commerce marked up H.R. 806, the *Ozone Standards Implementation Act*, in the Environment Subcommittee on June 15 and in the Full Committee on June 28. The markups follow a Full Committee hearing on the bill that took place in March. This legislation would delay NAAQS designations for the 70 ppb NOx standard to at least October 2024, and change the deadline for NOx SIPs to 2026. The bill advanced on a 29-24 vote, mostly along party lines, after the committee voted down two Democratic amendments.

House Appropriations Committee Update

The House Appropriations Committee kicked off its work on the Fiscal Year 2018 Appropriations cycle with Trump Administration officials testifying before each of its respective subcommittees during the weeks of June 12 and June 19. Environmental Protection Agency Administrator Pruitt testified on June 15 and the Chairman of the Subcommittee, Ken Calvert, spoke about the formation of the South Coast Air Quality Basin under former Congressman Jerry Lewis and the importance of the California Waiver. Administrator Pruitt responded that the California Waiver is not under review by the EPA and acknowledged the history of leadership of California on clean air issues. Chairman Calvert also devoted several questions to Administrator Pruitt regarding the importance of the Diesel Emissions Reduction Act and targeted air-shed grant program. Administrator Pruitt responded that DERA should be funded and stated that its mission is “right.” At the time this summary was written, the subcommittee’s draft Interior/Environment appropriations bill has not yet been released by the House Appropriations Committee.

Stem Energy Storage Partnership Opportunity:

Cassidy & Associates provided information regarding a partnership between Stem (Energy Storage/Battery company) and Southern California Edison. Their partnership inside of South Coast’s footprint is making Stem’s battery available at a significant discount which could present an opportunity for South Coast to target this

opportunity towards any/all stationary sources and/or large energy users that you would like to strengthen your relationship with while simultaneously reducing their energy bill and emissions.

EPA Delay for NAAQS Standard:

The EPA announced on June 28 that it is using its authority under the Clean Air Act to extend by one year the deadline for promulgating initial area designations for the NAAQS that were promulgated in October 2016. The new deadline is October 1, 2018. This action is nearly certain to result in legal action from a variety of environmental, public health, and state and local government entities.

EPA Moves Forward with NO2 Standards

The EPA has sent a proposed rule related to the agency's primary nitrogen dioxide standards to the White House Office of Management and Budget for Review. Under the Clean Air Act, EPA is supposed to review and if needed, revise the standards for NO2, ozone and four other criteria pollutants every five years based on the latest available scientific research. EPA is already two years behind schedule in wrapping up its latest review of the NO2 threshold. Under a settlement to a lawsuit brought by environmental groups, EPA officials are supposed to move ahead with the proposed rulemaking next month, followed by the final rule next April.

Comprehensive Energy Legislation

Senate Energy and Natural Resources Committee Chairwoman Lisa Murkowski (R-AK) is planning to introduce an updated version of the Energy Policy Modernization Act (the Comprehensive Energy Legislation) which will likely include the Vehicle Innovation Act. The Vehicle Innovation Act authorizes \$250 million per year to the Department of Energy for grants supporting vehicle technology advancement. South Coast has previously written a letter of support for this legislation to Chairwoman Murkowski and Ranking Member Cantwell, and once this bill is introduced again, we would suggest an updated letter of support.

EPA Science Board

The EPA is seeking nominations to fill key slots on the Clean Air Science Advisory Committee and the Science Advisory Board. These committees are required by law to be maintained by the EPA to advise it on air pollution and other scientific issues. A notice went out in the Federal Register on June 27 and there are 30 days for nominations to be put forward. There is one opening on the Clean Air Science Advisory Committee and six slots on the Science Advisory Board. In addition to the six positions opening on the SAB committee, EPA is asking for nominees to serve on its Chemical Assessment Advisory Committee, the Drinking Water Committee, the Ecological Processes and Effects Committee, the Environmental Economics Advisory Committee; the Environmental Engineering Committee and the Radiation Advisory Committee.

KADESH & ASSOCIATES, LLC

SCAQMD

July Legislative Committee Board Meeting Report covering June 2017 Kadesh & Associates

The Senate and House were both in session for all four weeks of June.

June featured the commencement of the very compressed Fiscal Year 2018 Appropriations process and follow up to “Infrastructure Week” in Washington, DC held the week of May 14. The House and Senate transportation and infrastructure related committees continued to hold hearings, particularly on FAA reform, but no large-scale infrastructure bill is in sight for this year.

New Member of the House Delegation from CA elected:

On June 6, 2017 Assemblyman (AD51) Jimmy Gomez (D) won a runoff General election to the seat for the US House of Representatives California Congressional District 34. The 42-year-old is set to replace former representative Xavier Becerra (D-Calif.), who served more than 20 years in Congress and is now California’s attorney general. Rep. Becerra left in late January after Gov. Jerry Brown (D) appointed him to succeed A.G. Kamala D. Harris (D), elected in 2016 to the US Senate. Rep.-elect Gomez won with 59.2% of the vote vs. Robert Lee Ahn at 40.8%. (They were the top two vote getters in a crowded primary election on April 4 that featured 23 candidates.) Rep.-elect Gomez was first elected to the CA Assembly in 2012 and immediately served as Majority Whip. He has a BA from UCLA and a MA from Harvard’s Kennedy School of Government. Subsequent to his official swearing-in in the US House, AQMD and Kadesh & Associates shall reach out to him and his staff to ensure that they are properly briefed on AQMD’s issues.



DC Fly-in Trip:

A successful DC fly-in June 27 and 28 by two Board members and staff provided the focal point of a month centered on coalition building and securing support for a coalition letter to Appropriators advocating for \$100 million in FY18 for DERA.

Activities summary:

Arranged meetings for fly in visit and hosted staff at Capitol Hill office.
Initiated special outreach to Tribes who have received DERA grants.
Continued to monitor and pass on relevant legislation of interest to AQMD.
Participated in regular conference call with subsequent follow up assignments.
Answered specific questions from AQMD 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.

Outlook:

The Senate and House will both be in session for three of the four weeks in July. The House and Senate Appropriations Committees will continue with a highly compressed and earnest schedule of hearings and mark ups in July in the hope of concluding FY2018 with their legislation at least in good enough shape to forge another omnibus or CROmnibus. The House Interior Appropriations subcommittee is very likely to hold its markup on July 11. Having failed in June to garner enough Republican votes in the Senate to bring their healthcare bill to the Senate floor, Senate Majority Leader McConnell pledged to tweak the bill and bring it back in July.

Follow up to previous item:

Division G, Title II of the Omnibus directs: “Within 30 days of enactment of this Act, the Agency [EPA] is directed to submit to the House and Senate Committees on Appropriations its annual operating plan for fiscal year 2017, which shall detail how the Agency plans to allocate funds at the program project level.” This report has been prepared by EPA and received by the House and Senate Appropriations Committees. It is not a public report.

###



Joe A. Gonsalves & Son

Anthony D. Gonsalves

Jason A. Gonsalves

Paul A. Gonsalves

PROFESSIONAL LEGISLATIVE REPRESENTATION

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TO: SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

FROM: ANTHONY, JASON, AND PAUL GONSALVES

SUBJECT: JULY LEGISLATIVE UPDATE

DATE: FRIDAY, JULY 7, 2017

As you are aware, the Legislature adopted their State Budget on June 15, 2017, which did not include an agreement on the extension of the cap & trade program that is currently set to expire in 2020. Only the main budget bill must be adopted by June 15, 2017. All budget trailer bills have until the end of session to be adopted.

The following will provide you of issues of interest to the District:

- Budget
- Legislative Calendar
- Legislation

Budget

On June 15, 2017, the Legislature adopted a \$125 Billion State budget for fiscal years 2017-18. As you know, the budget is now passed on a majority vote and if it is not adopted by June 15th, Legislators do not receive their paycheck. In addition, only the main budget bill must be adopted, as Budget trailer bills have until the end of session to be passed.

Some of this year's budget highlights include:

- Adding \$1.8 billion to the state's Rainy-Day Fund, bringing the fund to a total of \$8.5
- Expansion of California's Earned Income Tax Credit

- Increased funding for Schools
- Reduced Pension Liabilities
- Creates recreational Marijuana Regulations
- Accelerates \$2.8 billion in SB 1 funding for infrastructure repair
- Strips the elected Board of Equalization of most powers, starting July 1, and creates a new tax agency in its place, the California Department of Tax and Fee Administration, whose director reports to the governor

Although the Budget was adopted, the State has yet to adopt a trailer bill extending the Cap and Trade Program.

LEGISLATIVE CALENDAR

The following will provide you with the upcoming Legislative deadlines for the 2017-18 legislative session:

July 14, 2017 – Last day for Policy Committees to Hear Fiscal Bills

July 21, 2017 – Last day for Policy Committees to Hear Bills.

July 21-August 21, 2017 – Summer Recess

September 1, 2017 – Last Day for Fiscal Committees to Hear Bills

September 5-15, 2017 – Floor Session Only

September 8, 2017 – Last Day to Amend on the Floor

September 15, 2017 – Last Day of Session

LEGISLATION

AB 1073 (E. Garcia)

The California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program funds zero- and near-zero-emission truck, bus, and off-road vehicle and equipment technologies and related projects. Existing law requires the state board, when funding a specified class of projects, to allocate, until January 1, 2018, no less than 20% of that available funding to support the early commercial deployment of existing zero- and near-zero-emission heavy-duty truck technology.

This bill proposes to require the state board, when funding a specified class of projects, to allocate, until January 1, 2023, no less than 20% of that available funding to support the early commercial deployment or existing zero- and near-zero-emission heavy-duty truck technology.

This bill was heard in the Senate Environmental Quality Committee on June 21, 2017 and passed on a 6-0 vote. The bill is now in the Senate Appropriations Committee.

AB 1082 (Burke)

This bill would require a large electrical corporation (100,000 or more service connections) to file with the PUC, by July 30, 2018, a program proposal for the installation of vehicle charging stations at school facilities. Allows an electrical corporation with 100,000 service connections or less the same ability to file with the PUC. The bill would require the PUC to review and approve, or modify and approve, the program proposal filed by the electrical corporation by December 31, 2018.

The bill would also authorize the use of these charging stations by faculty, students, and parents before, during, and after school hours at those times that the school facilities are operated for purposes of providing education or school-related activities. The bill would require the electrical corporation to install, own, operate, and maintain the charging equipment and would require that the approved program include a reasonable mechanism for cost recovery by the electrical corporation.

Lastly, the bill would require that schools receiving charging stations pursuant to the approved program participate in a time-variant rate approved by the commission.

This bill is set to be heard in the Senate Energy, Utilities and Communications Committee on July 10, 2017.

AB 1083 (Burke)

This bill proposes to require large electrical corporations (100,000 or more service connections) to file with, and the California Public Utilities Commission (CPUC) to approve, a program proposal for the installation of electric charging stations at state parks and beaches. The bill allows an electrical corporation with 100,000 service connections or less the same ability to file with the PUC.

Specifically, the bill would require electrical corporations to file with the CPUC a program proposal for the installation of electrical grid integrated level-two charging stations at state parks and beaches, by September 30, 2018.

Additionally, the electrical corporations would be required to work in consultation with the CPUC, the California Energy Commission, and the California Air Resources Board (CARB), to develop a plan to create a robust charging network at all state parks and beaches within its service territory, by July 31, 2018 with the CPUC to review and approve, or modify and approve, the program by December 31, 2018.

The electrical corporations would be required to install, own, operate, and maintain the electric vehicle charging equipment. The approved program would include a mechanism for reasonable cost recovery by the electrical corporation.

This bill is set to be heard in the Senate Energy, Utilities and Communications Committee on July 10, 2017.

AB 1646 (Muratsuchi)

This bill would require the risk management plan of a petroleum refinery to be posted on the Internet Web site of the Office of Emergency Services or on the Internet Web site of the UPA that has jurisdiction over the petroleum refinery.

In addition to existing requirements for the contents of a risk management plan, the bill would require the plan to provide for a system of automatic notification for residents who live within a 5-mile radius of the petroleum refinery, an audible alarm system that can be heard within a 10-mile radius of the petroleum refinery, and an emergency alert system for schools, public facilities, hospitals, and residential care homes located within a 10-mile radius of the petroleum refinery. The bill would require a petroleum refinery to implement those systems on or before January 1, 2019.

This bill was heard in the Senate Environmental Quality Committee on June 21, 2017 and passed on a 5-1 vote. The bill is now in the Senate Appropriations Committee.

AB 1647 (Muratsuchi)

This bill is the companion bill to AB 1646. The bill proposes to require an air district to require the owner or operator of a petroleum refinery to install a community air monitoring system on or before January 1, 2020, and to install a fence-line monitoring system on or before January 1, 2019.

The bill would also require the owner or operator of a refinery to collect real-time data from these monitoring systems, to make that data available to the public at the time of collection in a publicly accessible format, and to maintain records of that data.

This bill was heard in the Senate Environmental Quality Committee on June 21, 2017 and passed on a 5-1 vote. The bill is now in the Senate Appropriations Committee.



SCAQMD Report
Gonzalez, Quintana, Hunter & Cruz, LLC
July 14, 2017

General Update

The final push leading up to summer break is underway. Policy committees will continue to hear bills up until the final day of session, July 21st, before the Legislature takes four weeks off, reconvening on August 21st.

Cap & Trade

Cap and trade negotiations are underway. The Governor's office, the Senate, and the Assembly are each working on developing plans to extend, modify, or expand the existing cap and trade program that is currently set to sunset in 2020.

We have been deeply engaged at the highest levels in the cap and trade negotiation. We have insisted that the final deal must dedicate substantial funding to mitigate mobile sources of pollution as well as funding to cover the costs of any air quality monitoring mandates. We have seen multiple versions of bill language and with each iteration we are increasingly hopeful that the bill is moving toward a solution that we can support.

Sponsored Legislation

AB 1132 (C. Garcia) Non-vehicular air pollution: order of abatement.

This bill would authorize the air pollution control officer, if he or she determines that a person has violated those requirements and the violation presents an imminent and substantial endangerment to the public health or welfare, or the environment, to issue an order for abatement pending a hearing before the hearing board of the air district.

Update

AB 1132 passed out of Senate Environmental Quality committee with a bipartisan vote of 6-1.

We worked for a couple of weeks with the committee chair and staff to craft a final version of the bill that satisfied the chair's concerns regarding due process without overly limiting a district's ability to conduct a normal hearing.

The bill will be heard in Senate Appropriations before it moves to the Senate Floor. If it

moves out of the Senate, it will need to return to the Assembly for a concurrence vote before heading to the Governor for consideration.

AB 1274 (O'Donnell) Carl Moyer Memorial Air Quality Standards Attainment Program. Smog Abatement Fee.

Would, except as provided, exempt motor vehicles that are 8 or less model-years old from being inspected biennially upon renewal of registration. The bill would assess an annual smog abatement fee of \$24 on motor vehicles that are 7 or 8 model-years old. The bill would require the fee be deposited into the Air Pollution Control Fund and be available for expenditure, upon appropriation by the Legislature, to fund the Carl Moyer Memorial Air Quality Standards Attainment Program.

This bill requires a 2/3 vote for passage.

Update

AB 1274 passed out of Senate Environmental Quality committee with a vote of 4-2.

The bill is headed to Senate Appropriations where it will be sent to the suspense file. The Senate Appropriations suspense hearing will not occur until late August, no later than September 1st.

AB 246 (Santiago)

Department of Toxic Substances Control: hazardous waste: facilities: emissions monitoring.

Summary: This bill would require the Department of Toxic Substances Control (DTSC) to assess, in consultation with the relevant air pollution control district or air quality management district, hazardous waste facilities under its jurisdiction within the respective territory of each air district to determine if fence-line or other monitoring to measure and record emissions at those facilities is necessary or appropriate. The bill would require the department to complete and report to the Legislature on its assessment by September 1, 2018.

Background: This bill is one of a five-bill package introduced to strengthen the DTSC. The department regulates and oversees companies that use toxic materials and ensures they follow laws and dispose of hazardous waste appropriately. Several high-profile cases in recent years, including the now-shuttered Exide Technology battery recycling plant in Vernon, have prompted several members of the Assembly to seek reforms aimed at making DTSC a stronger, and more proactive agency.

According to the author's office, this bill is designed to promote the use of fence line monitoring by hazardous waste facility permit holders. In a news release introducing the package of bills, Assembly Member Santiago is quoted as saying

“With pollution from the former Exide Technologies facility as a major, ongoing issue in my district, I know first-hand the physical, mental, and emotional impact that a toxic disaster can have on a community. I have pledged, time and again to continue to fight for the right of all to clean air and water – and to prevent a mess like Exide from happening elsewhere. I am happy to be authoring AB 246 to establish a more comprehensive system of air monitoring around toxic facilities. I am proud to stand shoulder-to-shoulder with my colleagues on this important issue.”

Existing law, as part of the hazardous waste control laws, requires a facility handling hazardous waste to obtain a hazardous waste facilities permit from the DTSC. Existing law requires the department to impose certain conditions on each hazardous waste facilities permit and authorizes the department to impose other conditions on a hazardous waste facilities permit. A violation of the hazardous waste control laws is a crime.

Status: 6/21/2017 - From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Senate Com. on EQ.

Specific Provisions: This bill would:

- 1) Require the DTSC to assess, in consultation with the relevant air pollution control district or air quality management district, hazardous waste facilities under its jurisdiction within the respective territory of each air district to determine if fence-line or other monitoring to measure and record emissions at those facilities is necessary or appropriate.
- 2) Require the DTSC to complete and report to the Legislature on its assessment by September 1, 2018.

Impacts on AQMD’s Mission, Operations or Initiatives: This bill was recently amended to involve local air districts. Air districts would be required to assess, in consultation with the DTSC, hazardous waste facilities under its jurisdiction within the respective territory of each air district to determine if fence-line or other monitoring to measure and record emissions at those facilities is necessary or appropriate. It is unclear how much resources SCAQMD would be required to devote to such a mandated effort.

However, in order for SCAQMD to be involved in assisting with fence-line monitoring assessments of, and potentially more involved activities regarding, hazardous waste facilities under DTSC’s authority, provisions need to be added to the bill that provide for adequate reimbursement to local air districts to cover the additional costs that would be incurred by air districts to perform these assessments. This is the especially the case because this type of monitoring is resource intensive. Fence line monitoring itself is extremely resource intensive and, in most cases, requires substantial initial and ongoing costs with expertise to operate, review and interpret the data coming from the system(s).

Further, certain air districts, such as SCAQMD, have large numbers of hazardous waste facilities located in their jurisdiction. In addition to the substantial financial resources needed to perform monitoring assessments, it would also take a significant amount of time to be able to properly assess all of these many facilities in the South Coast basin. Staff would need more time to determine how many such facilities exist in its jurisdiction, and consequently how long it would take to complete these assessments in time to prepare the report for the Legislature required by this bill. Staff is concerned that the September 1, 2018 report deadline included in this bill is too short and should be extended.

Recommended Position: Work with Author

SUPPORT:

Natural Resources Defense Council (NRDC)
Sierra Club California
California League of Conservation Voters
Environmental Working Group
Del Amo Action Committee

Center for Environmental Health
Society for Positive Action
California Communities Against Toxics
California Safe Schools
Coalition for a Safe Environment
Desert Citizens Against Pollution
California Environmental Justice Alliance
Apostolic Faith Center
California Kids IAQ
Community Dreams
Center on Race Poverty and the Environment
American Veterans
Breast Cancer Prevention Partners
EMERGE
Mothers for East Los Angeles
Resurrection Church
San Pedro Peninsula Homeowners Coalition
St. Philomena Social Justice Ministry
Wilmington Improvement Center
National Association for the Advancement of Colored People (NAACP) #1069

OPPOSITION:

California Business Properties Association
California Chamber of Commerce
California Manufacturers and Technology Association
Chemical Industry Council of California
Greater Fresno Area Chamber of Commerce
Industrial Environmental Association
National Federation of Independent Business
Western Plant Health Association
Western States Petroleum Association
Alhambra Chamber of Commerce
San Diego Regional Chamber of Commerce
Simi Valley Chamber of Commerce
Metal Finishing Association of Northern California
Metal Finishing Association of Southern California
Oxnard Chamber of Commerce
California Metals Coalition
South Bay Association of Chambers of Commerce
California Cement Manufacturers Environmental Coalition
Southwest California Legislative Council
California Small Business Association

South Coast Air Quality Management District
Legislative Analysis Summary – AB 246 (Santiago)
Version: As amended June 21, 2017
Analyst: MC/PC

Redondo Beach Chamber of Commerce and Visitors Bureau
Torrance Chamber of Commerce
El Dorado County Joint Chamber of Commerce
Rancho Cordova Chamber of Commerce
Palm Desert Chamber of Commerce
Camarillo Chamber of Commerce
West Coast Lumber & Building Material Association
Clean Harbors Environmental Services, Inc.
North Orange County Chamber
Safety-Kleen, Inc.
Fontana Chamber of Commerce
Norco Area Chamber of Commerce

AMENDED IN SENATE JUNE 21, 2017

AMENDED IN ASSEMBLY MARCH 9, 2017

CALIFORNIA LEGISLATURE—2017–18 REGULAR SESSION

ASSEMBLY BILL

No. 246

**Introduced by Assembly Members Santiago, Cristina Garcia,
Gomez, and Reyes**

January 30, 2017

An act to add *and repeal* Section ~~25200.24~~ to 25158.2 of the Health and Safety Code, relating to hazardous waste.

LEGISLATIVE COUNSEL'S DIGEST

AB 246, as amended, Santiago. ~~Hazardous Department of Toxic Substances Control: hazardous waste: facilities: permits: fence-line monitoring systems: emissions monitoring.~~

Existing law, as part of the hazardous waste control laws, requires a facility handling hazardous waste to obtain a hazardous waste facilities permit from the Department of Toxic Substances Control. Existing law requires the department to impose certain conditions on each hazardous waste facilities permit and authorizes the department to impose other conditions on a hazardous waste facilities permit, as specified. ~~A violation of the hazardous waste control laws is a crime.~~

~~This bill would, as a condition for a new hazardous waste facilities permit or a renewal of a hazardous waste facilities permit, require an applicant to install and maintain a fence-line monitoring system to measure and record emissions along the border of the facility. The bill would provide that this requirement applies only for a permit to operate a hazardous waste facility that treats or disposes of hazardous waste.~~

Because a violation of this requirement would be a crime, the bill would impose a state-mandated local program.

~~The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.~~

~~This bill would provide that no reimbursement is required by this act for a specified reason.~~

Existing law generally designates air pollution control and air quality management districts with the primary responsibility for the control of air pollution from all sources other than vehicular sources.

This bill would require the department to assess, in consultation with the relevant air pollution control district or air quality management district, hazardous waste facilities under its jurisdiction within the respective territory of each air district to determine if fence-line or other monitoring to measure and record emissions at those facilities is necessary or appropriate. To the extent this requirement would impose additional duties on air districts, the bill would impose a state-mandated local program. The bill would require the department to complete, and report to the Legislature on, its assessment by September 1, 2018.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 25158.2 is added to the Health and Safety
- 2 Code, to read:
- 3 25158.2. (a) The department shall assess, in consultation with
- 4 the relevant air pollution control district or air quality management
- 5 district, hazardous waste facilities under its jurisdiction within the
- 6 respective territory of each air district to determine if fence-line
- 7 monitoring to measure and record emissions along the border of
- 8 the facility or other monitoring to measure and record emissions
- 9 at the facility is necessary or appropriate.

1 (b) The department shall complete, and report to the Legislature
2 on, its assessment by September 1, 2018.

3 (c) (1) A report to be submitted pursuant to subdivision (b)
4 shall be submitted in compliance with Section 9795 of the
5 Government Code.

6 (2) Pursuant to Section 10231.5 of the Government Code, this
7 section is repealed on January 1, 2023.

8 SEC. 2. No reimbursement is required by this act pursuant to
9 Section 6 of Article XIII B of the California Constitution because
10 a local agency or school district has the authority to levy service
11 charges, fees, or assessments sufficient to pay for the program or
12 level of service mandated by this act, within the meaning of Section
13 17556 of the Government Code.

14 SECTION 1. ~~Section 25200.24 is added to the Health and~~
15 ~~Safety Code, immediately following Section 25200.23, to read:~~

16 ~~25200.24. (a) The department shall, as a condition for a new~~
17 ~~hazardous waste facilities permit or a renewal of a hazardous waste~~
18 ~~facilities permit, require an applicant to install and maintain a~~
19 ~~fence-line monitoring system to measure and record emissions~~
20 ~~along the border of the facility.~~

21 ~~(b) Subdivision (a) shall apply only for a permit to operate a~~
22 ~~hazardous waste facility that treats or disposes of hazardous waste.~~

23 SEC. 2. ~~No reimbursement is required by this act pursuant to~~
24 ~~Section 6 of Article XIII B of the California Constitution because~~
25 ~~the only costs that may be incurred by a local agency or school~~
26 ~~district will be incurred because this act creates a new crime or~~
27 ~~infraction, eliminates a crime or infraction, or changes the penalty~~
28 ~~for a crime or infraction, within the meaning of Section 17556 of~~
29 ~~the Government Code, or changes the definition of a crime within~~
30 ~~the meaning of Section 6 of Article XIII B of the California~~
31 ~~Constitution.~~

AB 1036 (McCarty)
Organic waste: composting.

Summary: This bill would:

- 1) Specify that the California Environmental Protection Agency (CalEPA) and the California Department of Food and Agriculture (CDFA) align, rather than coordinate, regulation and internal policy goals to achieve the state's organic waste diversion and greenhouse gas (GHG) reduction goals;
- 2) Require CalEPA to use the new goals established in 2016 by SB 1383, relating to short-lived climate pollutant (SLCP) emissions, in its assessment of the state's progress toward developing organic waste and recycling infrastructure;
- 3) For the purposes of permits and long-term emissions reductions relating to a composting facility, a district shall include in calculations for baseline emissions of criteria air pollutants and GHGs the reduction in emissions resulting from not sending those organic materials to a landfill or directly applying them to land; and
- 4) Retroactively define “essential public service” to include, among other things: a prison, detention facility, police or firefighting facility, school, health care facility, landfill gas control or processing facility, sewage treatment works, composting facility, or water delivery operation, if owned and operated by a public agency.

Background: Existing law establishes the California Integrated Waste Management Act, which requires local jurisdictions to divert 50 percent of solid waste generated from landfill disposal and establishes a state policy goal that 75 percent of solid waste generated statewide be diverted from landfill disposal by 2020.

AB 341 (Chesbro), Chapter 476, Statutes of 2011, requires commercial waste generators, including multi-family dwellings, to arrange for recycling services and requires local governments to implement commercial solid waste recycling programs designed to divert solid waste from businesses. AB 1826 (Chesbro), Chapter 727, Statutes of 2014, requires generators of specified amounts of organic waste (i.e., food waste and yard waste) to arrange for recycling services for that material.

Existing law requires CalEPA, in coordination with the State Water Resources Control Board (SWRCB), the California Air Resources Board (CARB), and the CDFA, to develop and implement policies to aid in the diversion of organic waste from landfills by promoting the use of agricultural, forestry, and urban organic waste as feedstock for compost and by promoting the appropriate use of compost.

Further, CDFA is required to develop and administer the Healthy Soils Initiative to improve carbon storage in soils and reduce agricultural GHG emissions.

Existing law also requires CalEPA and CDFG to coordinate regulations and goals to divert organic waste from landfill disposal. CalEPA is required to assess the state's progress toward developing the organic waste and recycling infrastructure necessary to meet the state's commercial and organic waste diversion requirements, the Short-Lived Climate Pollutant Reduction Strategy (Strategy) approved in May, 2015, and the Healthy Soils Initiative.

Finally, CARB is required to approve and implement an updated Strategy to reduce SLCP emissions. SB 1383 (Lara), Chapter 395, Statutes of 2016, requires the Strategy to achieve 40% reduction in methane emissions, 40% reduction in hydrofluorocarbon gases, and 50% reduction in anthropogenic black carbon by 2030.

Status: 6/26/2017 - In Senate EQ committee: Set, second hearing. Hearing canceled at the request of author.

Specific Provisions: Specifically, this bill would:

- 1) For the purposes of permits and long-term emissions reductions relating to a composting facility, a district shall include in calculations for baseline emissions of criteria air pollutants and greenhouse gases the reduction in emissions resulting from not sending those organic materials to a landfill or directly applying them to land;
- 2) For purposes of this part, including any regulations adopted pursuant to this part before or after the enactment of this section, “essential public service” includes, but is not limited to, a prison, detention facility, police or firefighting facility, school, health care facility, landfill gas control or processing facility, sewage treatment works, composting facility, or water delivery operation, if owned and operated by a public agency.
- 3) Update state requirements by ensuring that CalEPA and CDFG align their regulatory and policy efforts, rather than just coordinate, to achieve the state's organic waste diversion and GHG reduction goals; and
- 4) Update statute by requiring CalEPA to assess the state's progress toward developing the organic waste and recycling infrastructure necessary to achieve the state's recycling and GHG reduction goals by ensuring that the assessment use the new goals established in 2016 by SB 1383, relating to SLCP emissions.

Impacts on SCAQMD’s Mission, Operations or Initiatives: Current law requires CalEPA to assess the state's progress toward developing the organic waste and recycling infrastructure necessary to achieve the state's recycling and GHG reduction goals; however, statute specifies that the assessment use the May 2015 Strategy. In 2016, SB 1383

established new goals for the Strategy. This bill, among other things, requires the assessment to incorporate the Strategy required by SB 1383.

However, recent amendments to this bill regarding air district permitting of compost facilities is problematic.

- Staff is concerned that requiring crediting of emission reductions at landfills towards a composting permit may conflict with federal permitting requirements. The proposed addition of section 40723.5 to the Health and Safety Code requires air districts, when permitting and developing emission reduction strategies for compost facilities, to “... include in calculations for baseline emissions of criteria pollutants and greenhouse gases the reduction in emissions resulting from not sending those organic materials to a landfill or directly applying them to land.” Under federal and state New Source Review programs, “baseline emissions” are considered to be either the actual emissions of the project under review, or the equipment’s potential to emit, and do not include offsite reductions which would be speculative, unverifiable, nonpermanent, and unenforceable. In addition, this contradicts section 42504 of the Health and Safety Code enacted by SB288 (Sher, 2003) which prohibits modifications of district New Source Review programs, including “The calculation methodology, thresholds, or other procedures of new source review.” (HSC 42504 (b)(1)(C)). Air districts simply cannot change New Source Review requirements to be less stringent in order to reduce control requirements for the benefit of a compost facility.
- Also, the decision as to whether these facilities are essential public services should be left as a local decision of the relevant air district governing board. If these facilities were classified as essential public services, they would be eligible for offsets from SCAQMD’s internal bank of offsets, and would cause an additional strain on the internal bank offset supply that has not been accounted for. Rule 1315 contains cumulative limits on the amount of offsets that may be used. If these limits are reached, then this could result in a stoppage in the issuing of permits for sources already identified as essential public services, such as sewage treatment plants. Thus, this proposal could have serious adverse consequences to public health. Further, the proposal does not affect air districts that have not already defined essential public services, so only those that have taken steps to help these services are affected.
- Staff is concerned that the requirement to “align” regulation may force all air district rules to be identical, which may interfere with our needs as an extreme ozone attainment area to have more stringent requirements.
- SCAQMD staff would seek to encourage organic waste diversion to biofuels, or zero or near-zero emission energy production, such as fuel cells, rather than composting.

Composting is a positive for landfills and fertilizer production, but not preferable for GHG emissions or air quality, relative to other options.

Recommended Position: OPPOSE

Support

Californians Against Waste
California Compost Coalition
Napa Recycling and Waste Services
Northern California Recycling Association
Solana Center for Environmental Innovation
Tri-CED Community Recycling

Opposition

None on file

AMENDED IN SENATE JUNE 20, 2017

CALIFORNIA LEGISLATURE—2017–18 REGULAR SESSION

ASSEMBLY BILL

No. 1036

Introduced by Assembly Member McCarty

February 16, 2017

An act to *add Sections 40723.5 and 40723.6 to the Health and Safety Code, and to amend Section 42649.87 of the Public Resources Code, relating to solid waste.*

LEGISLATIVE COUNSEL'S DIGEST

AB 1036, as amended, McCarty. Organic waste: composting.

Existing law requires the California Environmental Protection Agency, in coordination with the Department of Resources Recycling and Recovery, the State Water Resources Control Board, the State Air Resources Board, and the Department of Food and Agriculture, to develop and implement policies to aid in diverting organic waste from landfills by promoting the composting of specified organic waste and by promoting the appropriate use of that compost throughout the state. Existing law requires the California Environmental Protection Agency and the Department of Food and Agriculture, with the Department of Resources Recycling and Recovery, the State Water Resources Control Board, and the State Air Resources Board, to, among other things, assess the state's progress toward developing the organic waste processing and recycling infrastructure necessary to meet the state goals specified in certain state laws and documents.

This bill would require those entities to assess the state's progress towards developing the organic waste processing and recycling infrastructure necessary to meet the state goals specified in an additional

state law, as provided, and would make other changes in these provisions.

Existing law vests air pollution control districts and air quality management districts with the primary responsibility for control of air pollution from all sources other than vehicular sources, including from composting facilities.

This bill would require an air pollution control district or an air quality management district, for the purposes of permits and long-term emissions reductions relating to a composting facility, to include in calculations for baseline emissions of criteria air pollutants and greenhouse gases the reduction in emissions resulting from not sending those organic materials to a landfill or directly applying them to land. Because the bill would impose new duties on districts, it would impose a state-mandated local program.

Various air pollution control district and air quality management district rules define an “essential public service” for their purposes.

This bill would specify facilities that are “essential public services” for purposes of the statutes that govern air pollution control districts and air quality management districts and the regulations adopted pursuant to those statutes before or after the enactment of this bill, including composting facilities.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.

State-mandated local program: ~~no~~-yes.

The people of the State of California do enact as follows:

- 1 **SECTION 1.** *Section 40723.5 is added to the Health and Safety*
- 2 *Code, to read:*
- 3 *40723.5. For the purposes of permits and long-term emissions*
- 4 *reductions relating to a composting facility, a district shall include*
- 5 *in calculations for baseline emissions of criteria air pollutants*
- 6 *and greenhouse gases the reduction in emissions resulting from*
- 7 *not sending those organic materials to a landfill or directly*
- 8 *applying them to land.*

1 SEC. 2. Section 40723.6 is added to the Health and Safety
2 Code, to read:

3 40723.6. For purposes of this part, including any regulations
4 adopted pursuant to this part before or after the enactment of this
5 section, “essential public service” includes, but is not limited to,
6 a prison, detention facility, police or firefighting facility, school,
7 health care facility, landfill gas control or processing facility,
8 sewage treatment works, composting facility, or water delivery
9 operation, if owned and operated by a public agency.

10 SECTION 4.

11 SEC. 3. Section 42649.87 of the Public Resources Code is
12 amended to read:

13 42649.87. (a) The California Environmental Protection
14 Agency, in coordination with the department, the State Water
15 Resources Control Board, the State Air Resources Board, and the
16 Department of Food and Agriculture, shall develop and implement
17 policies to aid in diverting organic waste from landfills by
18 promoting the use of agricultural, forestry, and urban organic waste
19 as a feedstock for compost and by promoting the appropriate use
20 of that compost throughout the state.

21 (b) In developing policies pursuant to subdivision (a), the
22 California Environmental Protection Agency shall promote a goal
23 of reducing at least five million metric tons of greenhouse gas
24 emissions per year through the development and application of
25 compost on working lands, which include, but are not limited to,
26 agricultural land, land used for forestry, and rangeland. The
27 California Environmental Protection Agency shall work with the
28 Department of Food and Agriculture to achieve this goal.

29 (c) The Secretary for Environmental Protection and the Secretary
30 of Food and Agriculture shall ensure proper alignment of agency
31 regulations and internal policy goals to implement this section.
32 The California Environmental Protection Agency and the
33 Department of Food and Agriculture, with the department, the
34 State Water Resources Control Board, and the State Air Resources
35 Board, shall do all of the following:

36 (1) Assess the state’s progress towards developing the organic
37 waste processing and recycling infrastructure necessary to meet
38 the state goals specified in Assembly Bill 341 (Chapter 476 of the
39 Statutes of 2011), Assembly Bill 1826 (Chapter 727 of the Statutes
40 of 2014), Senate Bill 1383 (Chapter 395 of the Statutes of 2016),

1 the State Air Resources Board’s Short-Lived Climate Pollutant
2 Reduction Strategy, and the Department of Food and Agriculture’s
3 Healthy Soils Initiative.

4 (2) Meet at least quarterly to consult with interested
5 stakeholders, including, but not limited to, the compost industry,
6 local governments, and environmental organizations, to encourage
7 the continued viability of the state’s organic waste processing and
8 recycling infrastructure.

9 (3) Hold at least one public workshop annually to inform the
10 public of actions taken to implement this section and to receive
11 public comment.

12 (4) Develop recommendations for promoting organic waste
13 processing and recycling infrastructure statewide, which shall be
14 posted on the California Environmental Protection Agency’s
15 Internet Web site no later than January 1, 2017, and updated
16 annually thereafter.

17 (d) This section shall remain in effect only until January 1, 2021,
18 and as of that date is repealed, unless a later enacted statute, that
19 is enacted before January 1, 2021, deletes or extends that date.

20 *SEC. 4. No reimbursement is required by this act pursuant to*
21 *Section 6 of Article XIII B of the California Constitution because*
22 *a local agency or school district has the authority to levy service*
23 *charges, fees, or assessments sufficient to pay for the program or*
24 *level of service mandated by this act, within the meaning of Section*
25 *17556 of the Government Code.*

Senate Bill 615 (Hueso)
Salton Sea restoration

Summary: This bill would require the Natural Resources Agency (Agency) to develop a 10-year plan by January 1, 2018 that would implement the memorandum of understanding between the Agency and the U.S. Department of Interior which was entered into in August 2016 and makes state and federal commitments to protect public health and ecosystem values at the Salton Sea which are threatened by a receding shoreline due to implementation of urban-ag water transfers known as the Quantification Settlement. The bill also renames the Salton Sea Restoration Act, passed in 2003, in honor of John J. Benoit.

Background: The Salton Sea is threatened by increasing salinity and reduced flows. These changes increasingly threaten the unparalleled wildlife resources at the Salton Sea, as well as air quality in the region.

In 2003, Senators Kuehl, Machado, and Ducheny authored legislation that together implemented the Quantification Settlement Agreement (QSA), a historic water agreement that limited California’s Colorado River water usage to 4.4 million acre-feet annually. Key elements of the QSA included water conservation measures, water transfers from the Imperial Irrigation District to the San Diego County Water Authority and to the Coachella Valley Water District, environmental mitigation obligations, regulatory provisions, and funding agreements. The QSA legislation similarly included numerous provisions for habitat and species protection, air quality, and the eventual restoration of the Salton Sea by the State. Specifically, it committed “the State of California [to] undertake the restoration of the Salton Sea ecosystem and the permanent protection of the wildlife dependent on that ecosystem.”

Since the establishment of the QSA, there have been numerous pieces of legislation regarding the Salton Sea according to author. There remain numerous outstanding concerns with the Salton Sea that impact wildlife and habitat but more critically, the health and safety of the residents near the sea. The exposed playas have resulted in a spike in asthma rates in recent years with an especially troubling rise in children’s respiratory health issues.

Status: 6/27/17 - From Comm. on Water, Parks, & Wildlife: Do pass and re-refer to Com. on APPR. (Ayes 14. Noes 1.) (June 27). Re-referred to Com. on APPR.

Specific Provisions: Specifically, this bill would:

- 1) Rename the Salton Sea Restoration Act the “John J. Benoit Salton Sea Restoration Act.”

- 2) Require the California Natural Resources Agency, by January 1, 2018, to develop a 10-year plan to implement the memorandum of understanding between the Agency and the United States Department of the Interior, entered into on August 31, 2016, and its addendum, entered into on January 18, 2017, that addresses expected lakebed exposure, habitat or air quality projects that will be implemented, and funding needs to implement the plan.

Impacts on SCAQMD’s Mission, Operations or Initiatives: This bill is in line with the District’s policy priorities regarding dust mitigation and addressing the air quality issues associated with the receding shoreline of the Salton Sea.

Proposed Amendment: However, staff wants to ensure that the 10-year plan developed by the Agency to implement the MOU between the Agency and the US Department of the Interior also includes sufficient planning content to implement hydrogen sulfide mitigation efforts.

Recommended Position: SUPPORT with AMENDMENTS

Support:

Audubon California
California League of Conservation Voters
County of Imperial
Salton Sea Authority
Sierra Club California
Association of California Water Agencies

Opposition:

None on file

AMENDED IN SENATE MAY 1, 2017

SENATE BILL

No. 615

Introduced by Senator Hueso

(Principal coauthor: Assembly Member Eduardo Garcia)

February 17, 2017

An act to amend Sections 2930 and 2940 of, to amend the heading of Chapter 13 (commencing with Section 2930) of Division 3 of, and to add Section 2942.1 to, the Fish and Game Code, relating to the Salton Sea, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

SB 615, as amended, Hueso. Salton Sea restoration.

The Salton Sea Restoration Act requires the Secretary of the Natural Resources Agency, in consultation and coordination with the Salton Sea Authority, to lead Salton Sea restoration efforts. The act, to the extent that funding is appropriated to the Department of Fish and Wildlife for Salton Sea restoration activities, authorizes the Department of Water Resources, in coordination and under agreement with the Department of Fish and Wildlife, to undertake certain restoration efforts. The act authorizes the Salton Sea Authority to lead a feasibility study, in coordination and under contract with the Secretary of the Natural Resources Agency, as prescribed.

This bill would require the Natural Resources Agency, by January 1, 2018, to develop a 10-year plan to implement the memorandum of understanding between the agency and the United States Department of the Interior entered into on August 31, 2016, and its addendum, entered into on January 18, 2017, and would require the agency to address certain issues in the plan. The bill would rename the Salton Sea Restoration Act as the "John J. Benoit Salton Sea Restoration Act."

This bill would declare that it is to take effect immediately as an urgency statute.

Vote: 2/3. Appropriation: no. Fiscal committee: yes.

State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. The heading of Chapter 13 (commencing with
2 Section 2930) of Division 3 of the Fish and Game Code is amended
3 to read:

4
5 CHAPTER 13. JOHN J. BENOIT SALTON SEA RESTORATION ACT
6

7 SEC. 2. Section 2930 of the Fish and Game Code is amended
8 to read:

9 2930. This chapter shall be ~~known~~ *known*, and may be ~~cited~~
10 *cited*, as the John J. Benoit Salton Sea Restoration Act.

11 SEC. 3. Section 2940 of the Fish and Game Code is amended
12 to read:

13 2940. The Legislature finds and declares all of the following:

14 (a) The Salton Sea is California’s largest inland water body with
15 beneficial uses that include fisheries and wildlife habitat and
16 preservation of endangered species, and is a repository for
17 agricultural drainage.

18 (b) The Salton Sea ecosystem is a critical link on the
19 international Pacific Flyway and supports over 400 species of
20 birds.

21 (c) The Salton Sea is threatened by increasing salinity and
22 reduced inflows. ~~These Mitigation water inflows ordered by the~~
23 ~~State Water Resources Control Board in 2002 will expire at the~~
24 ~~end of 2017. Combined, these changes increasingly threaten the~~
25 ~~unparalleled wildlife resources at the sea, as well as air quality in~~
26 ~~the region.~~

27 (d) In cooperation with local governments, nonprofit
28 organizations, private businesses, and the public, ~~the Salton Sea~~
29 ~~Authority~~ *State of California* can help protect wildlife habitats and
30 endangered species, improve water and air quality, and enhance
31 recreational opportunities in the region.

32 (e) ~~The state~~ *State* of California and the United States
33 Department of the Interior committed through a memorandum of

1 understanding signed on August 31, 2016, to protect the ecological
2 values of the Salton Sea and to prevent dust emissions from at
3 least 25,000 acres of lakebed exposed by reduced agricultural
4 inflows resulting from the implementation of the Quantification
5 Settlement Agreement.

6 (f) In restoring the Salton Sea, it is the intent of the Legislature
7 to do all of the following:

8 (1) Protect and provide long-term conservation of fish and
9 wildlife that are dependent on the Salton Sea ecosystem.

10 (2) Restore the long-term stable aquatic and shoreline habitat
11 for fish and wildlife that depend on the Salton Sea.

12 (3) Mitigate air quality impacts from restoration projects using
13 the best available technology or best available control measures,
14 as determined by the South Coast Air Quality Management District
15 and the Imperial County Air Pollution Control District.

16 (4) Protect water quality.

17 (5) Maintain the Salton Sea as a vital link along the Pacific
18 Flyway.

19 (6) Preserve local tribal heritage and cultural values associated
20 with the Salton Sea.

21 (7) Minimize noxious odors and other water and air quality
22 problems.

23 (8) Coordinate with local, state, and federal agencies that are
24 responsible for air quality, endangered species, and other
25 environmental mitigation implementation requirements of the
26 Quantification Settlement Agreement.

27 (9) Enhance economic development opportunities that will
28 provide sustainable financial improvements benefiting the local
29 environment and the economic quality of life for communities
30 around the Salton Sea.

31 SEC. 4. Section 2942.1 is added to the Fish and Game Code,
32 to read:

33 2942.1. By January 1, 2018, the agency shall develop a 10-year
34 plan to implement the memorandum of understanding between the
35 agency and the United States Department of the Interior entered
36 into on August 31, 2016, and its addendum, entered into on January
37 18, 2017. The agency shall address all of the following in the plan:

38 (a) Expected lakebed exposure during the 10-year period of the
39 memorandum of understanding.

1 (b) Habitat or air quality projects that will be used to cover the
2 exposed lakebed.

3 (c) Funding needs and availability to implement the plan.

4 *SEC. 5. Owing to the critical importance of a viable roadmap*
5 *for the future of the Salton Sea, the Legislature recognizes the*
6 *essential role of the State Water Resources Control Board in the*
7 *exercise of its original jurisdiction with regard to the restoration*
8 *of the Salton Sea. To this end, the Legislature further recognizes*
9 *that timely implementation of a 10-year plan for a smaller but*
10 *sustainable Salton Sea is best served and effectuated through the*
11 *State Water Resources Control Board’s continuing jurisdiction*
12 *over this evolving subject matter and its attendant restoration*
13 *efforts.*

14 ~~SEC. 5.~~

15 *SEC. 6.* This act is an urgency statute necessary for the
16 immediate preservation of the public peace, health, or safety within
17 the meaning of Article IV of the California Constitution and shall
18 go into immediate effect. The facts constituting the necessity are:

19 In order to begin implementing the memorandum of
20 understanding between the ~~state~~ *State* of California and the United
21 States Department of the Interior, which would address
22 environmental and health impacts relating to the Salton Sea, at the
23 earliest possible date, it is necessary for this act to take immediate
24 effect.

Senate Bill 701 (Hueso)
Salton Sea Obligations Act of 2018

Summary: This bill proposes a \$500 million general obligation bond for the November 2018 ballot for purposes related to restoration of the Salton Sea and implementation of the Quantification Settlement Agreement.

Background: The Salton Sea is threatened by increasing salinity and reduced flows. These changes increasingly threaten the unparalleled wildlife resources at the Salton Sea, as well as air quality in the region. Existing law:

- 1) Provides, since 2003, in the Quantification Settlement Agreement (QSA) and related state laws for water transfers among southern California agricultural and water agencies and calling for restoration of the Salton Sea.
- 2) Establishes that the QSA is a collection of agreements between the Imperial Irrigation District (IID), Metropolitan Water District, San Diego County Water Authority, the Coachella Valley Water District, and the State, that included approval of water transfers from IID to San Diego, settled a number of claims to the Colorado River, and provided a transition period for the State to reduce its consumption of Colorado River water to its 4.4 million acre feet entitlement. Under the QSA, the amount of water flowing into the Salton Sea will be significantly reduced after 2017.
- 3) Establishes, in the original Salton Sea Restoration Act, legislative intent that the state undertake the restoration of the Salton Sea ecosystem and the permanent protection of the wildlife dependent on that ecosystem and that restoration be based on the preferred alternative developed as a result of a restoration study and alternative selection process. That law also provided that the preferred alternative provide the maximum feasible attainment of specified environmental objectives, including restoration of long-term stable aquatic and shoreline habitat to historic levels and diversity of fish and wildlife dependent on the Salton Sea, elimination of air quality impacts from restoration projects, and protection of water quality.
- 4) Requires that the Secretary of the Resources Agency (now the Natural Resources Agency), in consultation with the Department of Fish and Game (now DFW), Department of Water Resources, the Salton Sea Authority, air quality districts, and the Salton Sea Advisory Committee undertake a restoration study to determine a preferred alternative for restoration of the Salton Sea, to prepare a Programmatic Environmental Impact Report (PEIR) analyzing the alternatives.
- 5) Includes, in the Resources Agency final PEIR and preferred alternative, a restoration plan with an estimated cost of nearly \$9 billion that was submitted in 2007. The

Legislature has not acted on the preferred alternative proposed by the Resources Agency in 2007 but has appropriated funding for the Species Conservation Habitat (SCH) Project.

- 6) Created the Salton Sea Task Force by the administration and directed agencies to develop a comprehensive management plan for the sea that will meet a short-term goal of 9,000-12,000 acres of habitat and dust suppression projects. Governor Brown also set a medium-term plan to construct 18,000-25,000 habitat and dust suppression projects. In 2016, the California Natural Resources Agency and the federal government entered into a Memorandum of Understanding to coordinate habitat and air quality work.
- 9) Provides, as of March 16, 2017, a 10-year plan for various actions at the Salton Sea.

Status: 6/27/17 - Committee on Water, Parks, & Wildlife hearing.

Specific Provisions: Specifically, this bill:

- 1) Proposes a general obligation bond measure for the general election ballot in 2018. It allocates funds for unspecified activities at the Salton Sea. An unspecified amount of funding would be available to acquire water from willing sellers for protection of wildlife habitat and to suppress dust to protect public health.
- 2) Funds allocated per this bill shall be expended on projects designated in the Salton Sea Management Program to improve and protect public health within the Imperial Valley and ecosystem and wildlife habitat in and around the Salton Sea. Funds may also be expended to implement Salton Sea Restoration and Renewable Energy Initiative projects.
- 3) Allows up to 5% of the grant program to be used to pay the administrative costs of that program. It also allows up to 5% of the funds to be used for planning and monitoring.
- 4) Requires the Department of Finance to audit the expenditures, and for the California Natural Resources Agency to provide information on expenditures on its Web site.
- 5) Creates a preference for grantees to use the services of the California Conservation Corp, certified local conservation corps, or other nonprofit that provides job training for specifically identified groups is expressed.
- 6) Prohibits bond proceeds from being used to fulfill any mitigation requirements imposed by law.

- 7) Requires the agencies that administer programs per this bond to report to the Legislature on its expenditures and the public benefits that were created before January 1, 2028.

Impacts on SCAQMD’s Mission, Operations or Initiatives: According to the author, the Salton Sea is California’s largest inland water body with beneficial uses that include fisheries and wildlife habitat and preservation of endangered species. Moreover, the Salton Sea ecosystem is a critical link on the international Pacific Flyway and supports over 400 species of birds. However, it is also a short distance from many communities that live downwind of the sea that are impacted by the harmful dust emissions coming from the exposed playa areas. This has contributed directly to increased asthma rates in the children of these communities.

The Salton Sea is threatened by increasing salinity and reduced flows. These changes threaten the unparalleled wildlife resources at the sea, as well as air quality in the region. The state made a commitment almost 20 years ago to undertake the restoration of the sea and has spent millions on studies and plans which have yielded few results. These issues have greatly elevated the concerns at the sea and have made this a statewide matter that requires a focused statewide effort.

Moreover, the recent planning document issued by the California Natural Resources Agency for the Salton Sea only provides funding for projects through 2022, and absent additional funding for the plan, there is insufficient funding for the second half of the projects.

The author has pointed out that even with an \$80 million budget allocation to the Salton Sea, that the latest planning estimates for Salton Sea restoration are pegged at between \$1 and \$3 billion. Many of the bill’s supporters concur that the public health and Salton Sea restoration costs will far exceed currently available funding.

This bill is in line with the District’s policy priorities regarding dust mitigation and addressing the air quality issues associated with the receding shoreline of the Salton Sea.

Recommended Position: SUPPORT

SUPPORT:

Association of California Water Agencies
San Diego County Water Authority
Imperial County Board of Supervisors
Imperial Irrigation District

OPPOSITION:

None on file

AMENDED IN SENATE MAY 17, 2017

AMENDED IN SENATE APRIL 27, 2017

SENATE BILL

No. 701

Introduced by Senator Hueso

(Principal coauthor: Assembly Member Eduardo Garcia)

February 17, 2017

An act to add Division 45 (commencing with Section 75500) to the Public Resources Code, relating to the Salton Sea, by providing the funds necessary therefor through an election for the issuance and sale of bonds of the State of California and for the handling and disposition of those funds, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

SB 701, as amended, Hueso. Salton Sea Obligations Act of 2018.

The California Constitution requires a measure authorizing general obligation bonds to specify the single object or work to be funded by the bonds and further requires such a measure to be approved by a $\frac{2}{3}$ vote of each house of the Legislature and submitted to the voters, as specified. Existing law, the State General Obligation Bond Law, contains procedures for use in authorizing the issuance and sale of, and providing for the repayment of, state general obligation bonds. Under existing law, various general obligation bond measures have been approved by the voters to provide funds for certain natural resources programs.

This bill would enact the Salton Sea Obligations Act of 2018, which, if approved by the voters, would authorize the issuance of bonds in the amount of \$500,000,000 pursuant to the State General Obligation Bond Law to finance a program to comply with specified state obligations relating to the Salton Sea. This bill would provide for the submission

of these provisions to the voters at the November 6, 2018, statewide general election.

This bill would declare that it is to take effect immediately as an urgency statute.

Vote: 2/3. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. Division 45 (commencing with Section 75500)
2 is added to the Public Resources Code, to read:

3
4 DIVISION 45. SALTON SEA OBLIGATIONS ACT OF 2018

5
6 CHAPTER 1. SHORT TITLE

7
8 75500. This division shall be known, and may be cited, as the
9 Salton Sea Obligations Act of 2018.

10
11 CHAPTER 2. FINDINGS

12
13 75501. The people of California find and declare all of the
14 following:

15 (a) The Salton Sea, located in the Counties of Imperial and
16 Riverside, is California’s largest lake. Once an intermittent
17 freshwater sea that formed and evaporated several times over
18 thousands of years, the modern-day sea formed in 1905 when the
19 Colorado River breached an inadequate diversion structure and
20 flowed into the basin for two years.

21 (b) The Salton Sea is a terminal lake, with inflows from the
22 New River, the Alamo River, and the Whitewater River, and no
23 natural outflows. The New River, which has primarily been used
24 to convey agricultural runoff as well as treated and raw sewage,
25 is considered one of the most polluted rivers in the United States.

26 (c) The Salton Sea loses approximately one million acre-feet
27 per year to evaporation, and, as a result, is becoming increasingly
28 saline and exposing more playa. This presents a variety of
29 environmental and public health concerns.

30 (d) More than 95 percent of California's historical wetlands
31 have been converted to other land uses, making the Salton Sea a

1 critical wetland area in California for migratory waterfowl and
2 shorebirds. The Salton Sea supports more than 400 species of birds,
3 and is an internationally significant stopover site for hundreds of
4 thousands of birds migrating along the Pacific Flyway. Fishery
5 resources in the Salton Sea have also declined significantly due to
6 increasing salinity, evaporation, and declining water quality. Absent
7 remediation efforts, health conditions at the Salton Sea will rapidly
8 deteriorate for both humans and wildlife, especially with the water
9 transfers increasing as of 2017 and a decrease in runoff flows to
10 the Salton Sea.

11 (e) The shrinking Salton Sea also poses significant air quality
12 concerns for residents in the region as more playa is exposed.
13 According to the Pacific Institute, more than 100 miles of dusty
14 lake bed could be exposed to the desert winds. That would cause
15 fine particles to blow over the Coachella and Imperial Valleys,
16 with the latter already suffering from the highest childhood asthma
17 hospitalization rate in the state and both areas containing high
18 numbers of seniors who are especially susceptible to poor air
19 quality.

20 (f) Signed in 2003, the Quantification Settlement Agreement
21 (QSA) is a historic water agreement that limited California’s
22 Colorado River water usage to 4.4 million acre-feet annually. Key
23 elements of the QSA include water conservation measures, water
24 transfers from the Imperial Irrigation District to the San Diego
25 County Water Authority and to the Coachella Valley Water
26 District, environmental mitigation obligations, regulatory
27 provisions, and funding agreements.

28 (g) The Salton Sea Restoration Act (Chapter 13 (commencing
29 with Section 2930) of Division 3 of the Fish and Game Code)
30 includes numerous provisions for habitat and species protection,
31 air quality, and the eventual restoration of the Salton Sea by the
32 state. Specifically, the Salton Sea Restoration Act commits “the
33 State of California [to] undertake the restoration of the Salton Sea
34 ecosystem and the permanent protection of the wildlife dependent
35 on that ecosystem.”

36 (h) Section 2081.7 of the Fish and Game Code required the
37 Secretary of the Natural Resources Agency, in consultation with
38 the Department of Fish and Wildlife, the Department of Water
39 Resources, the Salton Sea Authority, air quality districts, and the
40 Salton Sea Advisory Committee to undertake a restoration study

1 to determine a preferred alternative for Salton Sea restoration, to
2 prepare a Programmatic Environmental Impact Report (PEIR)
3 analyzing the alternatives, and to submit a preferred alternative to
4 the Legislature on or before December 31, 2006. The resulting
5 report indicated that the preferred alternative would cost nearly
6 \$9 billion.

7 (i) The Legislature has not acted on the preferred alternative,
8 but has taken steps to restore the Salton Sea. The Legislature
9 appropriated funds for the Species Conservation Habitat Project,
10 which is similar to the early start habitat projects described as
11 Phase 1 in the 2006 PEIR. In the Budget Act of 2013, the
12 Legislature appropriated funds available from Proposition 84 (The
13 Safe Drinking Water, Water Quality and Supply, Flood Control,
14 River and Coastal Protection Bond Act of 2006) for initial
15 restoration projects at the Salton Sea. In the Budget Act of 2016,
16 the Legislature appropriated \$80 million from funds available from
17 Proposition 1 (The Water Quality, Supply, and Infrastructure
18 Improvement Act of 2014) to restore habitat and suppress dust at
19 the Salton Sea in the near term.

20 (j) In 2015, the Governor created the Salton Sea Task Force and
21 directed agencies to develop a comprehensive management plan
22 for the Salton Sea that will meet a short-term goal of 9,000 to
23 12,000 acres of habitat and dust suppression projects. The Governor
24 also set a medium-term plan to construct 18,000 to 25,000 acres
25 of habitat and dust suppression projects.

26 (k) On March 16, 2017, the Governor's administration released
27 its draft 10-year plan. Funding for the first four years of the plan
28 has been secured with the \$80 million in Proposition 1 funding.
29 The last six years of the plan are unfunded, with an estimated cost
30 of upwards of \$300 million.

31

32

CHAPTER 3. DEFINITIONS

33

34 75502. Unless the context otherwise requires, the definitions
35 set forth in this section govern the construction of this division, as
36 follows:

37 (a) "Acquisition" means obtaining a fee interest or any other
38 interest in real property, including easements, leases, water, water
39 rights, or interest in water obtained for the purposes of instream
40 flows, species or habitat protection, and development rights.

1 (b) “Committee” means the Salton Sea Obligations Finance
2 Committee created by Section 75520.

3 (c) “Fund” means the Salton Sea Obligations Fund of 2018
4 created by Section 75511.

5 (d) “Instream flows” means a specific streamflow, measured in
6 cubic feet per second at a particular location for a defined time,
7 and typically follows seasonal variations.

8 (e) “Long term” means for a period of not less than 20 years.

9 (f) “Nonprofit organization” means an organization qualified
10 to do business in California and qualified under Section 501(c)(3)
11 of Title 26 of the United States Code.

12 ~~(g) “Public agency” means a state agency or department, special
13 district, joint powers authority, city, county, city and county, or
14 other political subdivision of the state.~~

15 ~~(h)~~

16 (g) “Restoration” means the improvement of physical structure
17 or facilities and, in the case of natural systems and landscape
18 features, includes, but is not limited to, projects for the control of
19 erosion, the control and elimination of exotic species, removal of
20 waste and debris, prescribed burning, fuel hazard reduction, fencing
21 out threats to existing or restored natural resources, road
22 elimination, and other plant and wildlife habitat improvement to
23 increase the natural system value of the property. Restoration
24 projects shall include the planning, monitoring, and reporting
25 necessary to ensure successful implementation of the project
26 objectives.

27 ~~(i)~~

28 (h) “Secretary” means the Secretary of the Natural Resources
29 Agency.

30 ~~(j)~~

31 (i) “State General Obligation Bond Law” means the State
32 General Obligation Bond Law (Chapter 4 (commencing with
33 Section 16720) of Part 3 of Division 4 of Title 2 of the Government
34 Code).

35
36 CHAPTER 4. GENERAL PROVISIONS
37

38 75503. An amount that equals not more than 5 percent of the
39 funds allocated for a grant program pursuant to this division may
40 be used to pay the administrative costs of that program.

1 75504. Unless otherwise specified, up to 5 percent of funds
2 allocated for each program funded by this division may be
3 expended for planning and monitoring necessary for the successful
4 design, selection, and implementation of the projects authorized
5 under that program. This section shall not otherwise restrict funds
6 ordinarily used by ~~an agency~~ *the Natural Resources Agency* for
7 “preliminary plans,” “working drawings,” and “construction” as
8 defined in the annual Budget Act for a capital outlay project or
9 grant project. ~~Water quality monitoring data shall be collected and
10 reported to the State Water Resources Control Board in a manner
11 that is compatible and consistent with surface water monitoring
12 data systems or groundwater monitoring data systems administered
13 by the State Water Resources Control Board. Watershed monitoring
14 data shall be collected and reported to the Department of
15 Conservation in a manner that is compatible and consistent with
16 the statewide watershed program administered by the Department
17 of Conservation.~~

18 75505. (a) The Department of Finance shall provide for an
19 independent audit of expenditures pursuant to this division. The
20 Secretary of the Natural Resources Agency shall publish a list of
21 all program and project expenditures pursuant to this division not
22 less than annually, in written form, and shall post an electronic
23 form of the list on the agency’s Internet Web site in a downloadable
24 spreadsheet format. The spreadsheet shall include information
25 about the location of each funded project, the project’s objectives,
26 status, and anticipated outcomes, and any matching moneys
27 provided for the project by the grant recipient or other sources.

28 (b) If an audit, required by statute, of any entity that receives
29 funding authorized by this division is conducted pursuant to state
30 law and reveals any impropriety, the California State Auditor or
31 the Controller may conduct a full audit of any or all of the activities
32 of that entity.

33 ~~The state agency~~ *When* issuing any grant with funding
34 authorized by this ~~division~~ *division, the Natural Resources Agency*
35 shall require adequate reporting of the expenditures of the funding
36 from the grant.

37 75506. If any moneys allocated pursuant to this division are
38 not encumbered or expended by the recipient entity within the time
39 period specified by the administering agency, the unexpended

1 moneys shall revert to the administering agency for allocation
2 consistent with Chapter 5 (commencing with Section 75513).

3 75507. To the extent feasible, a project whose application
4 includes the use of services of the California Conservation Corps,
5 certified community conservation corps, as defined in Section
6 14507.5, or other nonprofit entities that provide job training and
7 education opportunities for veterans, foster care recipients,
8 farmworkers, or local youth in conservation or restoration projects
9 shall be given preference for receipt of a grant under this division.

10 75508. Moneys allocated pursuant to this division shall not be
11 used to fulfill any mitigation requirements imposed by law.

12 75509. To the extent feasible in implementing this division, a
13 state agency receiving funding under this division shall seek to
14 achieve wildlife conservation objectives through projects on public
15 lands or voluntary projects on private lands. Funds may be used
16 for payment for the creation of measurable habitat improvements
17 or other improvements to the condition of endangered or threatened
18 species, including through the development and implementation
19 of habitat credit exchanges.

20 ~~75510. A state agency that receives funding to administer a~~
21 ~~grant program under this division~~ *The Natural Resources Agency*
22 shall report to the Legislature by January 1, 2028, on its
23 expenditures pursuant to this division and the public benefits
24 received from those expenditures.

25 75511. The proceeds of bonds issued and sold pursuant to this
26 division shall be deposited in the Salton Sea Obligations Fund of
27 2018, which is hereby created in the State Treasury.

28 75512. The Legislature may enact legislation necessary to
29 implement programs funded by this division.

30

31 CHAPTER 5. SALTON SEA RESTORATION AND QUANTIFICATION
32 SETTLEMENT AGREEMENT IMPLEMENTATION

33

34 75513. The sum of five hundred million dollars (\$500,000,000)
35 shall be available to the Natural Resources Agency, upon
36 appropriation by the Legislature from the fund, for compliance
37 with the intrastate, multiparty quantification settlement agreement
38 provisions, including ecosystem restoration projects at the Salton
39 Sea, as set forth in Chapters 611, 612, and 613 of the Statutes of
40 2003 and in Chapter 614 of the Statutes of 2004.

1 75514. (a) Funds allocated pursuant to this chapter shall be
 2 expended on projects designated in the Salton Sea Management
 3 Program to improve and protect public health within the Imperial
 4 Valley and ecosystem and wildlife habitat in and around the Salton
 5 Sea.

6 (b) Funds may also be expended to implement projects identified
 7 in the Salton Sea Restoration and Renewable Energy Initiative.

8 (c) Priority for expenditure of funds allocated pursuant to this
 9 section shall be determined by the governance entity established
 10 consistent with other provisions of statute.

11 75516. (a) Of the funds allocated in Section 75513, not more
 12 than _____ dollars (\$_____) shall be allocated to the Natural
 13 Resources Agency, upon appropriation by the Legislature, for
 14 placement in the Salton Sea Environmental Water Account, which
 15 is hereby created in the fund.

16 (b) Funds in the Salton Sea Environmental Water Account shall
 17 be expended, upon appropriation by the Legislature, to acquire
 18 water from willing sellers for protection of wildlife habitat, to
 19 suppress dust due to exposure of emissive playa, and to sustain
 20 water elevations that protect the environment and human health
 21 at the Salton Sea.

22
 23 CHAPTER 6. FISCAL PROVISIONS
 24

25 75518. (a) Bonds in the total amount of five hundred million
 26 dollars (\$500,000,000), not including the amount of any refunding
 27 bonds issued in accordance with Section 75530, may be issued
 28 and sold to provide a fund to be used for carrying out the purposes
 29 expressed in this division and to reimburse the General Obligation
 30 Bond Expense Revolving Fund pursuant to Section 16724.5 of the
 31 Government Code. The bonds, when sold, *issued, and delivered,*
 32 shall be and constitute a valid and binding obligation of the State
 33 of California and the full faith and credit of the State of California
 34 is hereby pledged for the punctual payment of both the principal
 35 of, and interest on, the bonds as the principal and interest become
 36 due and payable.

37 (b) The Treasurer shall sell the bonds authorized by the
 38 committee pursuant to this section. The bonds shall be sold upon
 39 the terms and conditions specified in a resolution to be adopted

1 by the committee pursuant to Section 16731 of the Government
2 Code.

3 75519. (a) The bonds authorized by this division shall be
4 prepared, executed, issued, sold, paid, and redeemed as provided
5 in the State General Obligation Bond Law and all of the provisions
6 of that law apply to the bonds and to this division, except as
7 provided in subdivision (b).

8 (b) Subdivisions (a) and (b) of Section 16727 of the Government
9 Code do not apply to any project or program funded by the
10 proceeds of bonds issued and sold pursuant to this division that is
11 not a capital asset.

12 75520. (a) Solely for the purpose of authorizing the issuance
13 and sale, pursuant to the State General Obligation Bond Law, of
14 the bonds authorized by this division, the Salton Sea Obligations
15 Finance Committee is hereby created. For purposes of this division,
16 the Salton Sea Obligations Finance Committee is the “committee”
17 as that term is used in the State General Obligation Bond Law.

18 (b) The committee consists of the Director of Finance, the
19 Treasurer, and the Controller. Notwithstanding any other provision
20 of law, any member may designate a representative to act as that
21 member in his or her place for all purposes, as though the member
22 were personally present.

23 (c) The Treasurer shall serve as the chairperson of the
24 committee.

25 (d) A majority of the committee may act for the committee.

26 75521. The committee shall determine whether or not it is
27 necessary or desirable to issue bonds authorized by this division
28 in order to carry out the actions specified in this division and, if
29 so, the amount of bonds to be issued and sold. Successive issues
30 of bonds may be authorized and sold to carry out those actions
31 progressively, and it is not necessary that all of the bonds
32 authorized to be issued be sold at any one time.

33 75522. For purposes of the State General Obligation Bond
34 Law, “board,” as defined in Section 16722 of the Government
35 Code, means the secretary.

36 75523. There shall be collected each year and in the same
37 manner and at the same time as other state revenue is collected,
38 in addition to the ordinary revenues of the state, a sum in an amount
39 required to pay the principal of, and interest on, the bonds each
40 year. It is the duty of all officers charged by law with any duty in

1 regard to the collection of the revenue to do and perform each and
2 every act that is necessary to collect that additional sum.

3 75524. Notwithstanding Section 13340 of the Government
4 Code, there is hereby continuously appropriated from the General
5 Fund in the State Treasury, for the purposes of this division, an
6 amount that will equal the total of the following:

7 (a) The sum annually necessary to pay the principal of, and
8 interest on, bonds issued and sold pursuant to this division as the
9 principal and interest become due and payable.

10 (b) The sum that is necessary to carry out the provisions of
11 Section 75527, appropriated without regard to fiscal years.

12 75525. The board may request the Pooled Money Investment
13 Board to make a loan from the Pooled Money Investment Account
14 in accordance with Section 16312 of the Government Code for the
15 purpose of carrying out this division less any amount withdrawn
16 pursuant to Section 75527. The amount of the request shall not
17 exceed the amount of the unsold bonds that the committee has, by
18 resolution, authorized to be sold for the purpose of carrying out
19 ~~this division.~~ *division, excluding refunding bonds authorized*
20 *pursuant to Section 75530, less any amount withdrawn pursuant*
21 *to this section and Section 75527.* The board shall execute those
22 documents required by the Pooled Money Investment Board to
23 obtain and repay the loan. Any amounts loaned shall be deposited
24 in the fund to be allocated in accordance with this division.

25 75526. Notwithstanding any other provision of this division,
26 or of the State General Obligation Bond Law, if the Treasurer sells
27 bonds that include a bond counsel opinion to the effect that the
28 interest on the bonds is excluded from gross income for federal
29 tax purposes under designated conditions or is otherwise entitled
30 to any federal tax advantage, the Treasurer may maintain separate
31 accounts for the bond proceeds invested and for the investment
32 earnings on those proceeds and may use or direct the use of those
33 proceeds or earnings to pay any rebate, penalty, or other payment
34 required under federal law or take any other action with respect
35 to the investment and use of those bond proceeds, as may be
36 required or desirable under federal law in order to maintain the
37 tax-exempt status of those bonds and to obtain any other advantage
38 under federal law on behalf of the funds of this state.

39 75527. For the purposes of carrying out this division, the
40 Director of Finance may authorize the withdrawal from the General

1 Fund of an amount or amounts not to exceed the amount of the
2 unsold bonds that have been authorized by the committee to be
3 sold for the purpose of carrying out this ~~division~~ *division, excluding*
4 *refunding bonds authorized pursuant to Section 75530 and less*
5 *any amount borrowed pursuant to Section 75525. Any amounts*
6 *withdrawn shall be deposited in the ~~fund.~~ fund to be allocated in*
7 *accordance with this division. Any moneys made available under*
8 *this section shall be returned to the General Fund, with interest at*
9 *the rate earned by the moneys in the Pooled Money Investment*
10 *Account, from proceeds received from the sale of bonds for the*
11 *purpose of carrying out this division.*

12 75528. All moneys deposited in the fund that are derived from
13 premium and accrued interest on bonds sold pursuant to this
14 division shall be reserved in the fund and shall be available for
15 transfer to the General Fund as a credit to expenditures for bond
16 interest, except that amounts derived from premiums may be
17 reserved and used to pay the cost of bond issuance prior to any
18 transfer to the General Fund.

19 75529. Pursuant to Chapter 4 (commencing with Section
20 16720) of Part 3 of Division 4 of Title 2 of the Government Code,
21 the cost of bond issuance shall be paid *or reimbursed* out of the
22 bond proceeds, including premiums, if any. To the extent the cost
23 of bond issuance is not paid from premiums received from the sale
24 of bonds, these costs shall be ~~shared proportionately~~ *by allocated*
25 *proportionately to each program funded through this division by*
26 *the applicable bond sale.*

27 75530. The bonds issued and sold pursuant to this division
28 may be refunded in accordance with Article 6 (commencing with
29 Section 16780) of Chapter 4 of Part 3 of Division 4 of Title 2 of
30 the Government Code, which is a part of the State General
31 Obligation Bond Law. Approval by the voters of the state for the
32 issuance of the bonds under this division shall include approval
33 of the issuance of any bonds issued to refund any bonds originally
34 issued under this division or any previously issued refunding bonds.
35 *Any bond refunded with the proceeds of a refunding bond as*
36 *authorized by this section may be legally defeased to the extent*
37 *permitted by law in the manner and to the extent set forth in the*
38 *resolution, as amended from time to time, authorizing that refunded*
39 *bond.*

1 75531. The proceeds from the sale of bonds authorized by this
2 division are not “proceeds of taxes” as that term is used in Article
3 XIII B of the California Constitution and the disbursement of these
4 proceeds is not subject to the limitations imposed by that article.

5 SEC. 2. The Secretary of State shall submit Section 1 of this
6 act to the voters at the November 6, 2018, statewide general
7 election.

8 SEC. 3. Section 1 of this act shall take effect upon approval
9 by the voters of the Salton Sea Obligations Act of 2018 as set forth
10 in Section 1 of this act.

11 SEC. 4. This act is an urgency statute necessary for the
12 immediate preservation of the public peace, health, or safety within
13 the meaning of Article IV of the California Constitution and shall
14 go into immediate effect. The facts constituting the necessity are:

15 In order to maximize the time available for the analysis and
16 preparation of the bond act proposed by Section 1 of this act, it is
17 necessary that this act take effect immediately.



South Coast Air Quality Management District

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HOME RULE ADVISORY GROUP

Wednesday, May 10, 2017

MEETING MINUTES

CHAIR:

Dr. Joseph Lyou, Governing Board member

MEMBERS PRESENT:

Curt Coleman (Southern California Air Quality Alliance); Michael Downs (Downs Energy); Jaclyn Ferlita (Air Quality Consultants); Jayne Joy (Eastern Municipal Water District); Bill LaMarr (California Small Business Alliance); Mark Olson (Gerdau Rancho Cucamonga Mill); Art Montez (AMA International); Noel Muyco (Southern California Gas); Terry Roberts (American Lung Association of California); David Rothbart (Los Angeles County Sanitation District); Larry Smith (Cal Portland Cement); and TyRon Turner (Dakota Communications).

The following members participated by conference call: Chris Gallenstein (CARB); Rongsheng Luo (SCAG); Bill Quinn (California Council for Environmental & Economic Balance); Larry Rubio (Riverside Transit Agency); and Amy Zimpfer (EPA).

MEMBERS ABSENT:

Micah Ali (Compton Unified School District Board of Trustees); Mike Carroll (Regulatory Flexibility Group); Penny Newman (Center for Community Action and Environmental Justice); Patty Senecal (Western States Petroleum Association); and Morgan Wyenn (Natural Resources Defense Council).

OTHER ATTENDEES:

Mark Abramowitz (Board Consultant to Dr. Lyou); and Susan Stark (Tesoro)

SCAQMD STAFF:

Jill Whynot	Chief Operating Officer
William Wong	Principal Deputy District Counsel
Philip Crabbe	Community Relations Manager
Lisa Tanaka O'Malley	Community Relations Manager
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 JANUARY 11, 2017 MEETING MINUTES

Dr. Lyou asked for comments on the March 15, 2017 meeting minutes. Hearing none, the minutes were approved.

EPA AND FEDERAL ACTIVITIES

Amy Zimpfer provided an update on recent U.S. EPA and federal activities.

- Working with AQMD and CARB to resolve the sanctions related to the partial approval/disapproval of the 2006 PM2.5 Plan.
- Working with AQMD and CARB to resolve the partial approval/disapproval of the 2008 Ozone RACT SIP.
- Reviewing the AQMD amendment to the RECLAIM program, regarding the actions taken in 2015 and 2016.
- Reviewing the AQMD's 2016 Air Quality Management Plan (AQMP).
- Reviewing recommendations received on the Implementation of EPA's 2015 Ozone National Ambient Air Quality Standard.

Discussion

Bill LaMarr inquired about responses to the President's Executive Order #137771 - Reducing Regulation and Controlling Regulatory Costs and the public comment period which ends May 15, 2017. Amy Zimpfer indicated that voluminous input was received and all recommendations will be reviewed.

Bill La Marr inquired about the next steps, once the comment period ends. Amy Zimpfer replied that the Administration staff will evaluate all comments received.

David Rothbart inquired about the relative timeframe of EPA's approval or comments on the 2016 Ozone AQMP. Amy Zimpfer indicated there are statutory requirements, but a specific agenda has not been established.

David Rothbart inquired about possible concerns that EPA may have on the incentive based measures. Amy Zimpfer indicated that the challenges will be to ensure that the integrity measures are met.

Bill Quinn inquired about what can be expected from EPA on the RECLAIM amendment. Amy Zimpfer indicated that EPA cannot make any amendments, but will evaluate whether the Clean Air Act requirements are met and then provide the necessary approvals, disapprovals or recommendations.

Rongsheng Luo inquired if the expected actions on the 2006 National Ambient Air Quality Standards for Particulate Matter (2006 Standard) and RECLAIM amendment are related. Amy Zimpfer replied yes and will provide an update at the next Home Rule Advisory meeting.

Rongsheng Luo inquired if there is an designation statute deadline. Amy Zimpfer indicated that once the Governor's recommendation is received, there are 120 days to issue the initial designation.

Jill Whynot added at the May 2017 Stationary Source Committee meeting staff will present a supplemental analysis of the Reasonably Available Control Measures (RACM) / Reasonably Available Control Technology (RACT) to provide clarity for the RECLAIM 2006 24-hour PM2.5 and 2008 8-hour ozone standard to satisfy US EPA disapprovals. These items will go to the SCAQMD Governing Board in June 2017.

CARB REGULATORY ACTIVITIES

Johnnie Raymond reported on the following items to be discussed at the May 2017 CARB Board Meeting and other important items.

- Consider approval of California's Proposed State Plan for compliance with the Federal Municipal Solid Waste Landfill Emission Guidelines.
- Consider approval of the 2016 Ozone State Implementation Plan for the Western Mojave Desert Nonattainment Area.
- Provided an overview of items going to future Board Meetings (June to October).
 - ✓ Ozone SIP for Imperial County
 - ✓ Final 2030 Target Scoping Plan
 - ✓ Statewide Portable Equipment Registration Program and the Airborne Toxic Control Measure for diesel-fueled portable engines
 - ✓ Progress report on the Low Carbon Fuel Standard
 - ✓ Proposed amendments to greenhouse gas emissions reporting regulations
 - ✓ Proposed amendments to the Cap-and-Trade regulation
 - ✓ State Implementation Plans for East Kern and Imperial Counties and San Joaquin Valley.
- Climate Investments Program (Greenhouse Gas Reduction Fund) interactive map now available on website (www.caclimateinvestments.ca.gov).

Discussion

Dr. Lyou commented on a meeting with Kairos Aerospace and their development of an optical and infrared aerial survey technology, which monitors methane hot spots (i.e. oil field leaks, dairy farms). Johnnie Raymond indicated that CARB is working with SCAQMD, and others, on development and deployment of low-cost, next generation monitoring sensors.

Dr. Lyou commented on a commitment from Cynthia Marvin and CARB's legal staff to generate a memo to the District and Ports on how to properly interpret SB 1 in-use provisions, and requested an update for the next Home Rule meeting.

LEGISLATIVE UPDATE

Philip Crabbe reported on the following items discussed at the April Legislative Committee meeting.

SCAQMD's federal legislative consultants provided a written report on various key Washington, D.C. issues. In addition, it was verbally reported that on March 15th, the U.S. EPA and U.S. Department of Transportation put out their notice to review the emissions standards for cars and light-duty trucks. The emissions standards dictate the fuel economy standards at 54.5 miles per gallon by 2025. The EPA had finalized the fuel economy standards in January for the years 2022 through 2025; however, the new Administration announced that they will conduct their own review, which does not have to be released until April 1, 2018.

It was reported that the current appropriations process was still addressing bills for Fiscal Year (FY) 2017, which started October 1st of 2016 and will end on September 30th of 2017. Congress had been operating on a continuing resolution (CR), as they had not passed FY 17 bills yet, and the CR was set to expire on April 28th. However, with the successful completion of an Omnibus Appropriations bill for the remainder of FY 2017, EPA's overall FY 17 Budget represents a 1 percent reduction in the House-Senate Omnibus package, which is far better than the 30 percent cut suggested by the Trump Administration for FY18 released in mid-March. Funding for the Diesel Emission Reduction Act (DERA) program will increase to \$60 million from \$50 million in FY

2017. The Targeted Airshed Grant Program, which received \$20 million last year, will receive \$30 million.

It is expected that the FY 2018 appropriations process will be starting in May. President Trump's FY 2018 budget is expected to be released in mid-May.

Federal Legislative Issues

SCAQMD's state legislative consultants provided only written reports on various key issues in Sacramento, which can be seen in the April Legislative Committee packet.

State Legislative Issues

AB 1014 (Cooper) Diesel Backup Generators: Health Facility

AB 1014 would codify industry guidelines that direct health facilities to limit the tests they conduct of their diesel backup generators and standby systems. This includes a requirement that hospitals test their diesel generators once a month for a half-hour period.

Staff recommended a position of SUPPORT on this bill. The Legislative Committee and later the Governing Board approved that recommendation.

SB 49 (De Leon) California Environmental, Public Health, and Workers Defense Act of 2017

This bill seeks to insulate California from rollbacks in federal environmental regulations and public health protections. This bill would establish current federal clean air, climate, clean water, worker safety, and endangered species standards to be enforceable under state law, in an attempt to counter any weakening of federal standards. The bill also prohibits state and local agencies from amending or revising any of their rules or regulations to be less stringent than the baseline federal law, but allows for the establishment of more stringent rules or regulations.

It was reported that staff is supportive of the bill's basic intent to maintain existing clean air requirements in effect regardless of potential future actions weakening EPA regulations or the Clean Air Act. However, CAPCOA has identified a number of unintended consequences which could be detrimental to the District's operations.

Districts would be required to adopt a wide variety of federal requirements including new source performance standards, national emission standards for hazardous air pollutants, and prevention of significant deterioration permit programs, which would require significant staff and Board resources to adopt, implement and enforce.

Staff believes it would be more workable to identify certain key Clean Air Act requirements, such as the existing National Ambient Air Quality Standards and the obligation to attain such NAAQS by specified dates, which should be incorporated into state law, rather than trying to impose the entire Clean Air Act and its implementing mechanisms.

Staff recommended a position of Work with Author; because neither this recommendation nor any other was approved by the Committee, this item went to the Governing Board with no recommendation. The Governing Board later approved staff's original recommendation to WORK WITH AUTHOR.

H.R. 1090 (Reed) Technologies for Energy Security Act of 2017

This bill would reinstitute and extend, through 2021, commercial and residential installation tax credits for geothermal heat pumps, fuel cells, micro turbines, small wind and combined heat and power.

This bill would also make stationary fuel cells and other clean energy technologies more affordable and help spur innovation. By establishing tax parity for fuel cell technologies, thermal energy, combined heat and power, and other technologies, treating them all the same as wind and solar, it will help spur the development of these technologies and not favor one technology over another.

Staff recommended a position of SUPPORT. The Legislative Committee and later the Governing Board approved that recommendation.

Informational Item on SB 1 (Beall) – Transportation Funding

SB 1 dedicates funds to transportation infrastructure repairs as well as other projects which could potentially increase transportation emissions. However, SB 1 does not expressly dedicate funds to mitigate air quality impacts of goods movement projects included within the bill.

It is unclear what potential impacts SB 1 could have on the California Air Resources Board's and SCAQMD's ability to adopt emission reduction measures. SB 1 prevents CARB from requiring the replacement and repowering of commercial heavy duty vehicle engines until the vehicles reaches 800,000 miles or 18 years past engine certification, whichever is earlier. However, SB 1 includes a statement of legislative intent which states that it is not meant to limit the authority of CARB and local air districts. SCAQMD legal staff noted that the language included is ambiguous and could invite litigation. However, CARB and the California State Transportation Agency stated that this language does not have any effect on CARB or local air district indirect source authority.

SB 1 also incorporates the provisions of SB 174 (Lara) and requires the Department of Motor Vehicles to deny registration to trucks and buses that do not meet CARB's clean truck and bus mandate.

Proposed Legislation for Approval

SCAQMD legal staff presented on proposed legislation for approval. This proposed legislation was based on amendments made to the 2016 AQMP, which directed staff to seek necessary legislative authority to authorize SCAQMD to require accelerated purchase and use of near-zero and zero-emission heavy duty on-road vehicles for public fleets.

A late adjustment to the proposed amendments to the bill language was provided by SCAQMD staff at Legislative Committee. These changes to the proposed amendment language further clarified the definition of "near-zero and zero emission vehicles" and also clarified that the local air district would set the requirements related to those definitions, rather than the fleet operators. Additionally, SCAQMD staff has secured a potential bill, AB 302, which was amended to include the new proposed language. The bill was authored by Assembly Member Mike Gipson.

Staff recommended approval for the legislative proposal. At the Committee's request, the legislative proposal was continued until the next Legislative Committee meeting on May 12, 2017. However, the Governing Board took a Support with Amendments position on this item. However, the bill did not pass its first policy committee in the State Assembly and is now a 2-year bill.

Proposed Legislative Action for Approval

This proposed action would be to work with the Governor's Office and the Legislature to recover costs associated with proactive region-wide toxics air monitoring plan to identify high risk emitters of toxic air contaminants, similar to what was experienced in Paramount, and would be asking for approximately \$7.7 million per year for ten years to recover costs for the air toxics program.

Staff recommended approval for the proposed legislative action relating to seeking funding for enhanced toxic air monitoring. The Legislative Committee and later the Governing Board approved that recommendation.

Discussion

David Rothbart inquired about AB 302, specifically the Legislative Committee's concerns and the Governing Board's position. Dr. Lyou explained that an industry advocacy organization asked the Assembly Member to amend the bill, even though South Coast had not taken a position on it. A scheduled Transportation Hearing subsequently occurred and SCAQMD's position was needed.

Dr. Lyou inquired about a series of bills introduced by Assembly Member Muratsuchi, regarding a potential ban on modified HF use for refineries. Staff commented that the bill was made a two-year bill.

Art Montez inquired about the money borrowed by the state and funding for the State's Cap-and-Trade Program and the bullet train. Staff indicated that the Cap-and-Trade funding is potentially available but is currently on hold. Art Montez further inquired about how to guarantee that funds set aside for a particular program will not be encumbered for another program. Staff indicated that there are many ways that the Governor's office and State legislators can allocate available money.

Art Montez asked if there are any programs to address the purchase of bonds, specifically for more efficient air conditioning units for schools. Dr. Lyou replied that he was not aware of any such programs, but suggested he contact Edison or the California Energy Commission.

Jaclyn Ferlita inquired if there is any support or insight for future Cap-and-Trade bills. Staff indicated that it is difficult to predict, but will know more towards the end of the legislative year. Dr. Lyou commented that a busy end-of-year session is expected. Bill Quinn added that an important hearing was currently occurring with the Senate Environmental Quality Committee on the future of the Cap-and-Trade Program.

Bill LaMarr inquired if there was any movement on the proposed container fee. Staff indicated this is being pursued at a Federal, national level.

Amy Zimpfer commented that the Diesel Emissions Reduction Act (DERA) funding was increased significantly and proposals are being solicited nationwide, for projects that achieve significant reductions in diesel emissions.

UPDATE REGARDING LITIGATION ITEMS AND RELATED EPA ACTIONS

William Wong proved updates to the litigation status report handout.

- Case #1 – SCAQMD is working on an agreement to relocate one of the monitors, negotiations are ongoing.
- Case #2 – A case management conference occurred on May 8, 2017 and the court has set a trial date for February 27, 2018. Other facilities in Paramount are also seeking damages, along with an outstanding class action lawsuit. The court is considering relating these lawsuits to SCAQMD's case.
- Case #6 – An extended briefing schedule was entered into with the plaintiffs, which the court has not yet approved. The trial date could be moved to November 2017.

Discussion

David Rothbart inquired about Case #3 and what could happen if the contingency measures could not be used. Staff indicated that SCAQMD has relied on these measures and if this case is not overturned there could be severe consequences.

OUTREACH EFFORTS

Lisa Tanaka presented on the outreach component of Legislative, Public Affairs and Media Relations (LPAM). The presentation covered numerous aspects of outreach for the SCAQMD ranging from government relations to the general public, to health and environmental and educational organizations, and chambers of commerce. The presentation included an overview of the types of outreach activities such as town hall meetings, rules, permitting, events, partnerships with Small Business Assistance and other initiatives.

Discussion

TyRon Turner inquired about LPAM's community outreach plan and the targeted areas. He further explained that he is a neighborhood council member and has realized that many community members are unaware of SCAQMD, and inquired about the possibility of a future community forum in South Los Angeles. Ms. Tanaka responded that her geographic field staff (GEO) staff would welcome the opportunity to provide presentations for various groups, and provided a recap of the various meetings/events that her staff currently attends. She mentioned the calendar of events located on AQMD's website.

Dr. Lyou inquired about upcoming events and the locations. Ms. Tanaka commented that the SCAQMD mobile app is a great way to stay current and the calendar of events is updated regularly. She further suggested that HRAG members can provide her with requests for upcoming events, where GEO staff can attend to promote AQMD awareness.

Art Montez inquired about possible outreach to the Orange County school districts, educators and school boards. Staff requested that Mr. Montez provide a contact list for follow-up.

Bill LaMarr inquired about the Small Business Assistance team and their function within LPAM. Ms. Tanaka indicated that the team consists of a Public Advisor and five staff members, whose functions are to conduct no-fault inspections, assist with permit applications and issuance of clearance letters for small businesses.

Bill LaMarr commented on the number of clearance letters issued in the past two months and how staff is not aware of facility operations, especially in the current Paramount issue. Ms. Tanaka indicated that revisions were recently made to the clearance letter process and that a Pilot Program was initiated with the City of Paramount for renewal of business licenses, where SCAQMD will also review the requests; check on business types, their processes and permitted/non-permitted equipment. Staff indicated that the GEO staff are educating cities on business license and clearance letter policies, and have requested cities' business lists to compare with SCAQMD facility lists.

CONSENSUS BUILDING

Jayne Joy inquired about the possibility of the group participating in a tour of CR&R facility in Perris. Dr. Lyou indicated that this is complicated because of public meeting laws, but encouraged individuals to tour the facility.

SUBCOMMITTEE STATUS REPORTS

A. Freight Sustainability (Dan McGivney)

Dan McGivney gave a report on the following items.

- California Energy Commission's May 2017 meeting agenda includes items to approve a \$3M grant to CR&R for expansion, and freight sustainability projects for zero or near zero technology.
- The State is looking at how to divide up the \$420M settlement from Volkswagen.
- On May 30, 2017 there is a meeting on the implementation of the California Freight Sustainability Plan (Caltrans, Los Angeles).

Discussion

Dr. Lyou reported that the Ports of Los Angeles and Long Beach continue to work on their Clean Air Action Plans.

B. Small Business Considerations (Bill LaMarr)

There was no report.

C. Environmental Justice (Curt Coleman)

There was no report.

D. Climate Change (David Rothbart)

There was no report.

REPORT FROM AND TO THE STATIONARY SOURCE COMMITTEE

Jill Whynot reported on items related to the April and May 2017 meetings.

- Draft Assessment of tertiary-Butyl Acetate (tBac) White Paper.
- Proposed Amendments to Rule 1147.
- Proposed Amended Rules 219 and 222.
- Nonattainment New Source Review Compliance Demonstration for 2008 Ozone Standard.
- Proposed Amended Rule 1118.
- Proposed Rule 1466.

Discussion

Curt Coleman requested that staff not schedule rule working group meetings when Home Rule Advisory Group meetings are occurring.

OTHER BUSINESS

Michael Downs inquired about the transportation fuel sector waiver process, should a catastrophic event occur in the Southern California area. Staff indicated that a Governor's declaration would waive requirements, for both Statewide and local catastrophic events.

PUBLIC COMMENT

There were no public comments.

ADJOURNMENT

The meeting was adjourned at 12:20 p.m. The next meeting of the Home Rule Advisory Group is scheduled for 10:00 a.m. on July 12, 2017, and will be held at SCAQMD in Conference Room CC8.

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 23

REPORT: Mobile Source Committee

SYNOPSIS: The Mobile Source Committee held a meeting on Friday, July 21, 2017. 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), Dr. Joseph Lyou (Vice Chair), Supervisor Marion Ashley (*arrived at 9:04 a.m.*), Supervisor Sheila Kuehl, and Council Member Judith Mitchell

Absent: None.

Call to Order

Chair Parker called the meeting to order at 9:01 a.m.

INFORMATIONAL ITEM:

1. Update on SCAQMD-Funded Warehouse Truck Trip Study

Ian MacMillan, Planning & Rules Manager, presented a summary of the joint SCAQMD/NAIOP (the national trade association for commercial real estate development)-funded study of warehouse truck trip rates conducted by the Institute of Transportation engineers (ITE). Dr. Parker inquired what the next steps might be. Staff responded that they plan to continue to recommend that lead agencies use the ITE default trip rates for CEQA air quality analyses. In addition, staff will continue to monitor other studies that are ongoing related to this issue and will encourage ITE to continue work in this area, in particular determining peak trip rates compared to average trip rates. Supervisor Ashley complimented staff on this work and encouraged arriving at a consensus recommendation to provide certainty for CEQA documents. He also inquired if any data from a fee program is available

to evaluate trip rates at warehouses. Staff replied that there is no fee program run by the SCAQMD related to truck trips at warehouses, and that other programs run by cities or counties likely would not have this data either. Supervisor Kuehl inquired if there is a way to update the trip rate once a tenant is known. Staff replied that there are mechanisms to do this in CEQA; however, it is rarely done.

Council Member Mitchell commented that freight efficiency has become a real focus of many efforts throughout the state and that trip rate studies like this one can help inform what the air quality impacts are from this industry, and how they could be reduced in the future. She also recommended that staff: 1) prepare guidance for local governments when they prepare CEQA documents for warehouses; 2) share the results of this study with CARB staff; and 3) carefully consider how this information and other data can affect the warehousing industry during any indirect source rule development. Council Member Mitchell and Dr. Lyou also expressed an interest in taking a tour of warehousing facilities. Dr. Lyou noted that CARB is collecting warehouse data in the Central Valley which may be helpful here. Dr. Lyou asked staff to report back on the total emissions coming from warehousing in the District and also expressed an interest in continuing to fund studies that evaluate peak trip rates compared to average trip rates.

Mr. Wayne Nastri, Executive Officer, commented that staff works with CARB staff regularly on freight activities and indirect source rule concepts. There are new developments occurring with tools to measure and improve freight efficiency and that staff is looking to see if there are ways for the District to get involved.

Peter Herzog, representing NAIOP, commented that he appreciated the partnership between SCAQMD, NAIOP, and ITE on this study, and that this model for third-party facilitation of studies can be useful in other applications in the future. He noted that one of the key recommendations from the study was to continue studying this issue, and also that a top-down approach to indirect source rulemaking would not be a good approach.

WRITTEN REPORTS:

2. **Rule 2202 Activity Report: Rule 2202 Summary Status Report**

This item was received and filed.

3. **Monthly Report on Environmental Justice Initiatives: CEQA Document Commenting Update**

This item was received and filed.

OTHER MATTERS:

4. **Other Business:**

There was no other business.

5. **Public Comments:**

There were no public comments.

6. **Next Meeting Date**

The next regular Mobile Source Committee meeting is scheduled for Friday, September 15, 2017 at 9:00 a.m.

Adjournment

The meeting adjourned at 9:59 a.m.

Attachments

1. Attendance Record
2. Rule 2202 Activity Report – Written Report
3. CEQA Document Commenting Update – Written Report

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT MOBILE SOURCE COMMITTEE MEETING Attendance – July 21, 2017

Dr. Clark E. Parker, Sr. (Videoconference).....	SCAQMD Board Member
Dr. Joseph Lyou	SCAQMD Board Member
Supervisor Marion Ashley (Videoconference).....	SCAQMD Board Member
Supervisor Sheila Kuehl.....	SCAQMD Board Member
Mayor Pro Tem Larry McCallon.....	SCAQMD Board Member
Council Member Judith Mitchell	SCAQMD Board Member
Mark Abramowitz	Board Consultant (Lyou)
David Czamanske.....	Board Consultant (Cacciotti)
Ron Ketcham.....	Board Consultant (McCallon)
Andy Silva.....	Board Consultant (Rutherford)
Curt Coleman	Southern CA Air Quality Alliance
Peter Herzog.....	NAIOP SoCal (Commercial Real Estate Development Association
Bill LaMarr.....	California Small Business Alliance
David Rothbart	Los Angeles County Sanitation Districts
Susan Stark.....	Tesoro
Derrick Alatorre	SCAQMD Staff
Naveen Berry.....	SCAQMD Staff
Arlene Farol.....	SCAQMD Staff
Philip Fine	SCAQMD Staff
Carol Gomez	SCAQMD Staff
Sujata Jain	SCAQMD Staff
Ian MacMillan	SCAQMD Staff
Rosalee Mason	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Wayne Nastri.....	SCAQMD Staff
Robert Paud.....	SCAQMD Staff
Dean Saito	SCAQMD Staff
Laki Tisopulos.....	SCAQMD Staff
Veera Tyagi	SCAQMD Staff
Kurt Wiese.....	SCAQMD Staff
Jill Whynot	SCAQMD Staff
Jillian Wong	SCAQMD Staff



South Coast Air Quality Management District

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Rule 2202 Summary Status Report Activity for January 1, 2017 to June 30, 2017

Employee Commute Reduction Program (ECRP)	
# of Submittals:	153

Emission Reduction Strategies (ERS)	
# of Submittals:	311

Air Quality Investment Program (AQIP) Exclusively		
County	# of Facilities	\$ Amount
Los Angeles	33	\$ 221,250
Orange	10	\$ 121,143
Riverside	0	\$ 0
San Bernardino	4	\$ 16,683
TOTAL:	53	\$ 359,075

ECRP w/AQIP Combination		
County	# of Facilities	\$ Amount
Los Angeles	7	\$ 32,104
Orange	2	\$ 3,551
Riverside	1	\$ 8,131
San Bernardino	2	\$ 10,982
TOTAL:	12	\$ 54,768

Total Active Sites as of June 30, 2017

ECRP (AVR Surveys)			TOTAL Submittals w/Surveys	AQIP	ERS	TOTAL
ECRP ¹	AQIP ²	ERS ³				
489	27	2	518	109	721	1,348
36.28%	2%	0.15%	38.43%	8.09%	53.49%	100% ⁴

Total Peak Window Employees as of June 30, 2017

ECRP (AVR Surveys)			TOTAL Submittals w/Surveys	AQIP	ERS	TOTAL
ECRP ¹	AQIP ²	ERS ³				
350,564	9,181	315	360,060	16,671	335,570	712,301
49.22%	1.29%	0.04%	50.55%	2.34%	47.11%	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.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
June 01, 2017 to June 30, 2017**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Industrial and Commercial</i> LAC170629-07 L.A. Valley Garden Plaza Project (9933 Valley Blvd.)	The proposed project consists of the demolition of a 12,000-square-foot structure and the construction of a 17,000-square-foot commercial building with subterranean parking on 0.52 acres. The project is located on the northwest corner of Valley Boulevard and Eunice Avenue. Comment Period: 6/29/2017 - 7/20/2017 Public Hearing: 8/8/2017	Mitigated Negative Declaration	City of El Monte	** Under review, may submit written comments
<i>Industrial and Commercial</i> ORC170627-04 PA-17-03	The proposed project consists of the construction of three office buildings totaling 655,000 square feet on 23.5 acres. The project is located on the southeast corner of Harbor Boulevard and Sunflower Avenue. Comment Period: 6/23/2017 - 7/24/2017 Public Hearing: 8/14/2017	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Costa Mesa	** Under review, may submit written comments
<i>Industrial and Commercial</i> RVC170620-01 Murrieta's Hospitality Commons Project (Development Plan 2016-1010 and Tentative Parcel Map 2016-990)	The proposed project consists of the construction of an 86,600-square-foot commercial center with a 105-bed hotel on 6.47 acres. The project is located on the northwest corner of Los Alamos Road and Monroe Avenue. Reference RVC170511-08 Comment Period: N/A Public Hearing: 6/28/2017	Notice of Public Hearing	City of Murrieta	Document reviewed - No comments sent
<i>Industrial and Commercial</i> RVC170620-02 Pilot Flying J Travel Center Project	The proposed project consists of the 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 RVC170321-03 and RVC170222-02 Comment Period: 6/15/2017 - 6/30/2017 Public Hearing: N/A	Site Plan	City of Jurupa Valley	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.

** Disposition may change prior to Governing Board Meeting

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
June 01, 2017 to June 30, 2017**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Waste and Water-related</i> ORC170601-02 Well No. 22 Project	The proposed project consists of the construction of a groundwater well with a capacity of 3,000 gallons per minute and two linear pipelines totaling 1,070 linear feet. The project is located on the southeast corner of La Palma Avenue and Fee Ana Street in the City of Anaheim. Comment Period: 5/31/2017 - 6/29/2017 Public Hearing: N/A	Mitigated Negative Declaration	Yorba Linda Water District	Document reviewed - No comments sent
<i>Waste and Water-related</i> RVC170607-04 Eastern Coachella Valley Stormwater Master Plan	The proposed project consists of the construction of over 100 miles of channels and storm drains, 99 acres of debris basins, 11 miles of training levees, and dams, and the modifications to the other stormwater facilities on 168 square miles. The project is located southwest of Avenue 52 and the East Side Dike in the communities of Mecca, North Shore, Thermal, Oasis, and Vista Santa Rosa and within the boundaries of the cities of La Quinta and Coachella in the County of Riverside. Reference RVC150717-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2017/deir-easterncoachella-062717.pdf Comment Period: 5/18/2017 - 7/3/2017 Public Hearing: N/A	Notice of Availability of a Draft Programmatic Environmental Impact Report	Coachella Valley Water District	SCAQMD staff commented on 6/27/2017
<i>Waste and Water-related</i> RVC170608-04 Banning Water Canyon Pipeline Replacement	The proposed project consists of the replacement of 34,550 linear feet of water transmission pipeline. The project is located along the eastern bank of the San Gorgonio River within the Banning "water" Canyon. Comment Period: 6/6/2017 - 7/5/2017 Public Hearing: N/A	Mitigated Negative Declaration	City of Banning	Document reviewed - No comments sent
<i>Utilities</i> LAC170629-09 Alamitos Generating Station Battery Storage System	The proposed project consists of the construction of a 300-megawatt battery energy storage system facility on 7.5 acres. The project is located at 690 North Studebaker Road on the northeast corner of North Studebaker Road and Loynes Drive. Reference LAC161013-10 Comment Period: 6/29/2017 - 7/28/2017 Public Hearing: N/A	Recirculated Mitigated Negative Declaration	City of Long Beach	** Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.

** Disposition may change prior to Governing Board Meeting

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
June 01, 2017 to June 30, 2017**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Institutional (schools, government, etc.)</i> LAC170616-04 Mt. San Antonio College West Parcel Solar Parcel	The proposed project consists of the construction of a 2.2-megawatt solar panel system on 27.65 acres. The project is located on the southwest corner of Grand Avenue and Temple Avenue in the City of Walnut. Reference LAC170526-01 and LAC151229-13 Comment Period: 6/16/2017 - 7/17/2017 Public Hearing: 7/11/2017	Notice of Preparation	Mt. San Antonio College District	** Under review, may submit written comments
<i>Institutional (schools, government, etc.)</i> LAC170623-02 Flintridge Sacred Heart Academy Specific Plan	The proposed project consists of the expansion of the campus building from 217,351 square feet to 333,502 square feet with a 99,000-square-foot subterranean parking facility on a 17.8-acre portion of 42 acres. The project is located at 440 Saint Katherine Drive on the southwest corner of Palmerstone Drive and Saint Katherine Drive. Reference LAC160304-01 Comment Period: 6/22/2017 - 8/7/2017 Public Hearing: N/A	Draft Environmental Impact Report	City of La Canada Flintridge	Document reviewed - No comments sent
<i>Institutional (schools, government, etc.)</i> LAC170629-03 ENV-2016-4550: 13949-14101 W. Roscoe Blvd. & 13966-14024 W. Community St.	The proposed project consists of the demolition of a 31,047-square-foot building, and the construction of a 60,892-square-foot school auditorium on seven acres. The project is located on the northeast corner of Louise Avenue and Roscoe Boulevard in the community of Mission Hills-Panorama City-North Hills. Comment Period: 6/29/2017 - 7/19/2017 Public Hearing: N/A	Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
<i>Institutional (schools, government, etc.)</i> ORC170622-05 Howell Elementary School Project	The proposed project consists of the construction of a 103,600-square-foot school with 335,000 square feet of outdoor space on 17 acres. The project is located on the southwest corner of East Howell Avenue and East Katella Avenue. Comment Period: 6/22/2017 - 7/21/2017 Public Hearing: 7/12/2017	Notice of Preparation	Anaheim Elementary School District	** Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.

** Disposition may change prior to Governing Board Meeting

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JUNE 30, 2017**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<p>Edgington Oil Company (Edgington) is proposing the following modifications at its existing Edgington Refinery site to allow for additional flexibility in using the site for terminalling operations: 1) add 18 offloading arms at its existing rail tank car loading facility to allow for the offloading of distillates, biodiesel, and renewables (diesel and jet fuels), ethanol, naphtha, alkylates, reformate, and isooctane; 2) modify seven truck loading racks to allow distillates, biodiesel, and renewables to be loaded; 3) modify one rack (two arms) to allow unloading of crude oil from trucks; and 4) modify 16 existing fixed roof asphalt storage tanks to allow storage of distillates, biodiesel, and renewables.</p>	<p>Edgington Oil Company</p>	<p>Initial Study (IS)</p>	<p>An Initial Study has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>InterAct</p>
<p>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.</p>	<p>Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery</p>	<p>Environmental Impact Report (EIR)</p>	<p>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 responses to comments are being prepared.</p>	<p>Environmental Audit, Inc.</p>
<p>Quemetco is proposing an increase in the daily furnace feed rate.</p>	<p>Quemetco</p>	<p>Environmental Impact Report (EIR)</p>	<p>A Notice of Preparation/Initial Study (NOP/IS) has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Trinity Consultants</p>

**ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH JUNE 30, 2017**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<p>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.</p>	<p>Southern California Edison</p>	<p>Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Barre Peaker Project in Stanton</p>	<p>A draft Addendum has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Yorke Engineering, LLC</p>
<p>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.</p>	<p>Southern California Edison</p>	<p>Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Mira Loma Peaker Project in Ontario</p>	<p>A draft Addendum has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Yorke Engineering, LLC</p>

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 24

REPORT: Stationary Source Committee

SYNOPSIS: The Stationary Source Committee held a meeting on Friday, July 21, 2017. 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 Pro Tem Ben Benoit (Chair), Dr. Joseph Lyou (Vice Chair), Supervisor Sheila Kuehl, Council Member Judith Mitchell, Supervisor Shawn Nelson (*arrived at 11:00 a.m.*), and Supervisor Janice Rutherford

Absent: None

Call to Order

Chair Benoit called the meeting to order at 10:30 a.m.

ACTION ITEM:

1. Home Rule Advisory Group Membership

Based on the Blue Ribbon Panel Recommendations approved by the Board, the following requests for the Home Rule Advisory Group membership were submitted for concurrence of the Committee: Nan Harrold as a community representative for Supervisor Shawn Nelson; Kristen Pawling Torres as a community representative for Supervisor Sheila Kuehl; and Lauren Nevitt as the alternate for Southern California Gas.

Supervisors Rutherford and Nelson joined the meeting after the vote.

Moved by Lyou; seconded by Mitchell; unanimously approved.

Ayes: Benoit, Kuehl, Lyou, Mitchell

Noes: None

Absent: Nelson, Rutherford

INFORMATIONAL ITEMS:

2. Summary of Proposed Amended Rule 1401 – New Source Review of Toxic Air Contaminants

Susan Nakamura, Assistant Deputy Executive Officer/Planning, Rule Development and Area Sources, presented an update of proposed amendments to Rule 1401 updating risk assessment procedures for gasoline dispensing facilities and spray booths as well as updating the list of toxic air contaminants. Supervisor Rutherford asked if staff had data supporting the refueling emission factor that differs from CARB. Ms. Nakamura responded that the technology is designed, so that the controls for Onboard Refueling Vapor Recovery (ORVR) and Phase II Enhanced Vapor Recovery (EVR) could not overlap. Supervisor Rutherford followed up by saying that she wondered why CARB was not willing to state that corrections to the emission factor were needed. Executive Officer Wayne Nastri said that CARB has other pressing issues and will revisit this issue sometime in the future. Council Member Mitchell asked if this was a simple equation or if tests were needed to determine the actual emissions from refueling. Philip Fine, Deputy Executive Officer/Planning, Rule Development and Area Sources, said that staff was confident that emissions from one control system, cannot go to the other control system while CARB's emission factor assumes that happens. Ms. Nakamura added that the video presented showed the valve that prevents vapors in ORVR vehicles from returning to the fillpipe. Mr. Nastri recommended that SCAQMD ask CARB to have a staff-to-staff discussion.

Mr. Mike McDonough of Pillsbury Law said that the emission factors are critical for permitting and the development of the 2016 Air Quality Management Plan, which accounted for emissions reductions using CARB's 2013 revised emission factors. He said that he differs with staff regarding the refueling emission factor. He cited a 2008 CARB study where the data shows a higher control of emissions. Supervisor Kuehl asked staff to respond. Danny Luong, Senior Enforcement Manager, explained that the 2008 CARB study referenced was for ORVR with no Phase II nozzles, testing at the fillpipe nozzle interface, which found a small amount of vapors escaping from the fillpipe. However, the test did not account for the bulk of emissions which would have escaped from the carbon canister and would not be captured by Phase II via the fillpipe. Ms. Nakamura stated that staff believes that the EVR system still provides

emission controls for improvements in spillage, dripping and vehicles that are not equipped with ORVR. Mr. McDonough believes there is a serial benefit for the use of ORVR and EVR and cited CARB data that showed that five percent of uncontrolled vapors return to the tank and not the atmosphere. Dr. Lyou added that as this is a toxics rule, he would rather be cautious and that staff should go forward with the rule, study this in the future, and adjust the emission factor when further data is acquired.

Ms. Patty Senecal of Western States Petroleum Association pointed out that the rule applies to new and modified sources and she is concerned about the pace of the rule, lack of an engineering analysis, and the CEQA Environmental Assessment has not been circulated. She requested that the rule be delayed for two months to allow further review. Mr. Nastri said that we will provide the technical information and reach out to CARB in the next 30 days and therefore it is not necessary to delay the rule at this time. Ms. Nakamura added that the proposed amendments will qualify for a Notice of Exemption for CEQA and no modified permits were found to be impacted by the proposed rule.

Mr. Bill LaMarr of the California Small Business Alliance, speaking for California Independent Oil Marketers Alliance, provided a chart showing the distribution of documents relating to the rule. He pointed out that there is disagreement over the emission factors. Mr. LaMarr stated that these amendments would affect more than a handful of small businesses and they are concerned about the Rule 1402 compliance costs in the future. He asked that the rule amendments be delayed until November and staff be directed to convene a working group with CARB and stakeholders to discuss the differences in emission factors and come to an agreement. Ms. Nakamura provided an overview of when documents were released and explained the process whereby documents are released. Dr. Fine stated that further explanation of the emissions factor differences will be provided in the draft staff report and this a typical rule development schedule. Ms. Nakamura added that it is possible to have another working group meeting, if desired. Mr. Nastri stated that agencies may have different positions and that staff will provide the necessary technical information in a timely manner.

Mr. Curt Coleman, Southern California Air Quality Alliance, reiterated the concern that there is disagreement between SCAQMD and CARB over this issue which potentially affects the effectiveness of vapor recovery systems throughout the state. Because it is a statewide concern, he hopes that SCAQMD and CARB could come to an agreement before the rule moves forward.

3. **Update on Proposed Rules 1304.2 - California Public Utilities Commission Regulated Electrical Generating Facility Fee for Use of SO_x, PM₁₀ and NO_x Offsets and 1304.3 - Local Publicly Owned Electrical Generating Facility Fee for Use of SO_x, PM₁₀ and NO_x Offsets**

Tracy Goss, Planning and Rules Manager, gave the staff presentation. In 2016, staff was in active development of Proposed Rules 1304.2 and 1304.3. At the October 2016 Board meeting, public comments were received regarding the need for the rules. The Board directed staff to return to the Stationary Source Committee in January of 2017 on this issue. At the Committee's January meeting, staff presented rule options for Committee consideration, which included a recommendation to suspend rulemaking pending further evaluation of the need for offsets by existing and anticipated future electrical generation projects. Mr. Goss provided a summary of the current energy projects in the permitting process and staff's continued recommendation for rulemaking suspension. Staff committed to return to the Stationary Source Committee in the future when additional information becomes available and make further recommendations at that time. There were no questions or comments from committee members or the public.

4. **Status Report on Reg. XIII – New Source Review**

William Thompson, Senior Engineering Manager, 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 2015.

The SCAQMD NSR program differs from the federal NSR program and for that reason 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, adopted on February 4, 2011, 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. Credits are associated with emission reductions and debits are associated with emission increases. When the running balance for a given calendar year is positive the SCAQMD NSR program is considered to be equivalent or more stringent than the federal NSR program and equivalency has been demonstrated. In addition to demonstrating equivalency for any reporting calendar year, Rule 1315 also requires that projections of the running balance be made for two calendar years following the reporting calendar year. Projections are based on a five-year average of historic reporting data, and the projected running balances similarly need to show that federal equivalency is forecasted.

The Final running balance for calendar year 2015 is positive for all criteria pollutants, effectively demonstrating 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 2016 and 2017 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 2015, cumulative net emissions were below those thresholds. Additionally, projected amounts were below thresholds for 2016 and 2017.

WRITTEN REPORTS:

5. **Twelve-month and Three-month Rolling Price of 2016 and 2017 Compliance Years RTCs**

The report was acknowledged by the Committee.

6. **Home Rule Advisory Group – Bi-Monthly Report for May 2017**

The report was acknowledged by the Committee.

7. **Notice of Violation Penalty Summary**

The report was acknowledged by the Committee.

OTHER MATTERS:

8. **Other Business**

There was no other business.

9. **Public Comments**

There were no public comments.

10. **Next Meeting Date**

The next regular Stationary Source Committee meeting is scheduled for Friday, September 15, 2017 at 10:30 a.m.

Adjournment

The meeting was adjourned at 11:30 a.m.

Attachments

1. Attendance Record
2. Twelve-month and Three-month Rolling Price of 2016 and 2017 Compliance Years RTCs
3. Home Rule Advisory Group - Bi-Monthly Report for May 2017
4. Notice of Violation Penalty Summary

ATTACHMENT 1

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
STATIONARY SOURCE COMMITTEE**

Attendance - July 21, 2017

Mayor Pro Tem Ben Benoit (teleconference) SCAQMD Governing Board
Dr. Joseph Lyou SCAQMD Governing Board
Supervisor Sheila Kuehl..... SCAQMD Governing Board
Council Member Judith Mitchell SCAQMD Governing Board
Supervisor Shawn Nelson (videoconference) SCAQMD Governing Board
Supervisor Janice Rutherford SCAQMD Governing Board

David Czamanske..... Board Consultant (Cacciotti)
Ron Ketcham..... Board Consultant (McCallon)
Andy Silva..... Board Consultant (Rutherford)

Curt Coleman Southern Calif. Air Quality Alliance
Bill LaMarr..... California Small Business Alliance
Rita Loof..... RadTech
Lauren Nevitt..... SoCalGas
David Rothbart L.A. County Sanitation Districts
Patty Senecal Western States Petroleum Association
Susan Stark Tesoro

Amir Dejbakhsh SCAQMD staff
Philip Fine SCAQMD staff
Bayron Gilchrist SCAQMD staff
Tracy Goss..... SCAQMD staff
Danny Luong..... SCAQMD staff
Susan Nakamura..... SCAQMD staff
Wayne Nastri..... SCAQMD staff
William Thompson..... SCAQMD staff
Laki Tisopulos..... SCAQMD staff
Jill Whynot SCAQMD staff
Kurt Wiese..... SCAQMD staff

ATTACHMENT 2



South Coast Air Quality Management District

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(909) 396-2000 • www.aqmd.gov

Twelve-Month and Three-Month Rolling Average Price of Compliance Years 2016 and 2017 NOx and SOx RTCs

July 2017 Quarterly Report to Stationary Source Committee

Table I

Twelve-Month Rolling Average Price Data for Compliance Year 2016 NOx RTCs
(Report to Governing Board if rolling average price greater than \$22,500/ton)

Twelve-Month Rolling Average Price Data for Compliance Year 2016 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-16	Jan-15 to Dec-15	224.2	\$635,305	13	\$2,833
Feb-16	Feb-15 to Jan-16	224.2	\$635,305	13	\$2,833
Mar-16	Mar-15 to Feb-16	262.9	\$797,077	16	\$3,032
Apr-16	Apr-15 to Mar-16	268.3	\$817,792	18	\$3,049
May-16	May-15 to Apr-16	275.0	\$846,346	23	\$3,078
Jun-16	Jun-15 to May-16	294.6	\$929,752	27	\$3,156
Jul-16	Jul-15 to Jun-16	298.2	\$946,490	30	\$3,174
Aug-16	Aug-15 to Jul-16	296.0	\$928,978	34	\$3,138
Sep-16	Sep-15 to Aug-16	318.7	\$1,017,153	42	\$3,191
Oct-16	Oct-15 to Sep-16	225.7	\$841,616	45	\$3,730
Nov-16	Nov-15 to Oct-16	290.7	\$1,030,619	62	\$3,546
Dec-16	Dec-15 to Nov-16	342.4	\$1,136,149	66	\$3,318
Jan-17	Jan-16 to Dec-16	748.6	\$2,195,315	76	\$2,932
Feb-17	Feb-16 to Jan-17	1,128.2	\$2,785,334	110	\$2,469
Mar-17	Mar-16 to Feb-17	1,293.2	\$2,926,614	128	\$2,263

Twelve-Month Rolling Average Price Data for Compliance Year 2016 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 Price¹ (\$/ton)
Apr-17	Apr-16 to Mar-17	1293.9	\$2,917,770	129	\$2,255
May-17	May-16 to Apr-17	1,383.9	\$3,318,537	149	\$2,398
Jun-17	Jun-16 to May-17	1,366.0	\$3,243,007	146	\$2,374
Jul-17	Jul-16 to Jun-17	1,413.9	\$3,400,528	154	\$2,405

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 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 Price¹ (\$/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

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 2016 NOx RTCs
(Report to Governing Board if rolling average price greater than \$35,000/ton)

Three-Month Rolling Average Price Data for Compliance Year 2016 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)
May-16	Feb-16 to Apr-16	50.8	\$211,041	10	\$4,158
Jun-16	Mar-16 to May-16	31.7	\$132,675	11	\$4,188
Jul-16	Apr-16 to Jun-16	29.9	\$128,699	12	\$4,304
Aug-16	May-16 to Jul-16	32.9	\$130,194	12	\$3,953
Sep-16	Jun-16 to Aug-16	36.0	\$134,963	16	\$3,747
Oct-16	Jul-16 to Sep-16	39.4	\$142,688	18	\$3,623
Nov-16	Aug-16 to Oct-16	157.2	\$436,641	32	\$2,778
Dec-16	Sep-16 to Nov-16	186.2	\$453,996	28	\$2,438
Jan-17	Oct-16 to Dec-16	635.3	\$1,741,442	41	\$2,741
Feb-17	Nov-16 to Jan-17	887.4	\$2,007,458	56	\$2,262
Mar-17	Dec-16 to Feb-17	1,039.3	\$2,204,979	73	\$2,122
Apr-17	Jan-17 to Mar-17	589.3	\$904,942	58	\$1,536
May-17	Feb-17 to Apr-17	306.4	\$744,245	49	\$2,429
Jun-17	Mar-17 to May-17	104.5	\$449,068	29	\$4,296
Jul-17	Apr-17 to Jun-17	149.9	\$611,457	37	\$4,079

Table IV

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

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 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

Table VI

Twelve-Month Rolling Average Price Data for Compliance Year 2016 SOx RTCs
(Report to Governing Board if rolling average price greater than \$50,000/ton)

Twelve-Month Rolling Average Price Data for Compliance Year 2016 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 Price¹ (\$/ton)
Jan-17	Jan-16 to Dec-16	16.5	\$20,700	2	\$1,255
Feb-17	Feb-16 to Jan-17	27.0	\$35,183	4	\$1,304
Mar-17	Mar-16 to Feb-17	27.5	\$35,933	5	\$1,308
Apr-17	Jan-17 to Mar-17	27.5	\$35,933	5	\$1,308
May-17	May-16 to Apr-17	17.0	\$25,433	4	\$1,498
Jun-17	Jun-16 to May-17	17.0	\$25,433	4	\$1,498
Jul-17	Jul-16 to Jun-17	17.0	\$25,433	4	\$1,498

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 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 Price¹ (\$/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	-

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.

ATTACHMENT 3



**South Coast
Air Quality Management District**
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

HOME RULE ADVISORY GROUP

Wednesday, May 10, 2017

MEETING MINUTES

CHAIR:

Dr. Joseph Lyou, Governing Board member

MEMBERS PRESENT:

Curt Coleman (Southern California Air Quality Alliance); Michael Downs (Downs Energy); Jaclyn Ferlita (Air Quality Consultants); Jayne Joy (Eastern Municipal Water District); Bill LaMarr (California Small Business Alliance); Mark Olson (Gerdau Rancho Cucamonga Mill); Art Montez (AMA International); Noel Muyco (Southern California Gas); Terry Roberts (American Lung Association of California); David Rothbart (Los Angeles County Sanitation District); Larry Smith (Cal Portland Cement); and TyRon Turner (Dakota Communications).

The following members participated by conference call: Chris Gallenstein (CARB); Rongsheng Luo (SCAG); Bill Quinn (California Council for Environmental & Economic Balance); Larry Rubio (Riverside Transit Agency); and Amy Zimpfer (EPA).

MEMBERS ABSENT:

Micah Ali (Compton Unified School District Board of Trustees); Mike Carroll (Regulatory Flexibility Group); Penny Newman (Center for Community Action and Environmental Justice); Patty Senecal (Western States Petroleum Association); and Morgan Wyenn (Natural Resources Defense Council).

OTHER ATTENDEES:

Mark Abramowitz (Board Consultant to Dr. Lyou); and Susan Stark (Tesoro)

SCAQMD STAFF:

Jill Whynot	Chief Operating Officer
William Wong	Principal Deputy District Counsel
Philip Crabbe	Community Relations Manager
Lisa Tanaka O'Malley	Community Relations Manager
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 JANUARY 11, 2017 MEETING MINUTES

Dr. Lyou asked for comments on the March 15, 2017 meeting minutes. Hearing none, the minutes were approved.

EPA AND FEDERAL ACTIVITIES

Amy Zimpfer provided an update on recent U.S. EPA and federal activities.

- Working with AQMD and CARB to resolve the sanctions related to the partial approval/disapproval of the 2006 PM2.5 Plan.
- Working with AQMD and CARB to resolve the partial approval/disapproval of the 2008 Ozone RACT SIP.
- Reviewing the AQMD amendment to the RECLAIM program, regarding the actions taken in 2015 and 2016.
- Reviewing the AQMD's 2016 Air Quality Management Plan (AQMP).
- Reviewing recommendations received on the Implementation of EPA's 2015 Ozone National Ambient Air Quality Standard.

Discussion

Bill LaMarr inquired about responses to the President's Executive Order #137771 - Reducing Regulation and Controlling Regulatory Costs and the public comment period which ends May 15, 2017. Amy Zimpfer indicated that voluminous input was received and all recommendations will be reviewed.

Bill La Marr inquired about the next steps, once the comment period ends. Amy Zimpfer replied that the Administration staff will evaluate all comments received.

David Rothbart inquired about the relative timeframe of EPA's approval or comments on the 2016 Ozone AQMP. Amy Zimpfer indicated there are statutory requirements, but a specific agenda has not been established.

David Rothbart inquired about possible concerns that EPA may have on the incentive based measures. Amy Zimpfer indicated that the challenges will be to ensure that the integrity measures are met.

Bill Quinn inquired about what can be expected from EPA on the RECLAIM amendment. Amy Zimpfer indicated that EPA cannot make any amendments, but will evaluate whether the Clean Air Act requirements are met and then provide the necessary approvals, disapprovals or recommendations.

Rongsheng Luo inquired if the expected actions on the 2006 National Ambient Air Quality Standards for Particulate Matter (2006 Standard) and RECLAIM amendment are related. Amy Zimpfer replied yes and will provide an update at the next Home Rule Advisory meeting.

Rongsheng Luo inquired if there is a designation statute deadline. Amy Zimpfer indicated that once the Governor's recommendation is received, there are 120 days to issue the initial designation.

Jill Whynot added at the May 2017 Stationary Source Committee meeting staff will present a supplemental analysis of the Reasonably Available Control Measures (RACM) / Reasonably Available Control Technology (RACT) to provide clarity for the RECLAIM 2006 24-hour PM2.5 and 2008 8-hour ozone standard to satisfy US EPA disapprovals. These items will go to the SCAQMD Governing Board in June 2017.

CARB REGULATORY ACTIVITIES

Johnnie Raymond reported on the following items to be discussed at the May 2017 CARB Board Meeting and other important items.

- Consider approval of California's Proposed State Plan for compliance with the Federal Municipal Solid Waste Landfill Emission Guidelines.
- Consider approval of the 2016 Ozone State Implementation Plan for the Western Mojave Desert Nonattainment Area.
- Provided an overview of items going to future Board Meetings (June to October).
 - ✓ Ozone SIP for Imperial County
 - ✓ Final 2030 Target Scoping Plan
 - ✓ Statewide Portable Equipment Registration Program and the Airborne Toxic Control Measure for diesel-fueled portable engines
 - ✓ Progress report on the Low Carbon Fuel Standard
 - ✓ Proposed amendments to greenhouse gas emissions reporting regulations
 - ✓ Proposed amendments to the Cap-and-Trade regulation
 - ✓ State Implementation Plans for East Kern and Imperial Counties and San Joaquin Valley.
- Climate Investments Program (Greenhouse Gas Reduction Fund) interactive map now available on website (www.caclimateinvestments.ca.gov).

Discussion

Dr. Lyou commented on a meeting with Kairos Aerospace and their development of an optical and infrared aerial survey technology, which monitors methane hot spots (i.e. oil field leaks, dairy farms). Johnnie Raymond indicated that CARB is working with SCAQMD, and others, on development and deployment of low-cost, next generation monitoring sensors.

Dr. Lyou commented on a commitment from Cynthia Marvin and CARB's legal staff to generate a memo to the District and Ports on how to properly interpret SB 1 in-use provisions, and requested an update for the next Home Rule meeting.

LEGISLATIVE UPDATE

Philip Crabbe reported on the following items discussed at the April Legislative Committee meeting.

SCAQMD's federal legislative consultants provided a written report on various key Washington, D.C. issues. In addition, it was verbally reported that on March 15th, the U.S. EPA and U.S. Department of Transportation put out their notice to review the emissions standards for cars and light-duty trucks. The emissions standards dictate the fuel economy standards at 54.5 miles per gallon by 2025. The EPA had finalized the fuel economy standards in January for the years 2022 through 2025; however, the new Administration announced that they will conduct their own review, which does not have to be released until April 1, 2018.

It was reported that the current appropriations process was still addressing bills for Fiscal Year (FY) 2017, which started October 1st of 2016 and will end on September 30th of 2017. Congress had been operating on a continuing resolution (CR), as they had not passed FY 17 bills yet, and the CR was set to expire on April 28th. However, with the successful completion of an Omnibus Appropriations bill for the remainder of FY 2017, EPA's overall FY 17 Budget represents a 1 percent reduction in the House-Senate Omnibus package, which is far better than the 30 percent cut suggested by the Trump Administration for FY18 released in mid-March. Funding for the Diesel Emission Reduction Act (DERA) program will increase to \$60 million from \$50 million in FY

2017. The Targeted Airshed Grant Program, which received \$20 million last year, will receive \$30 million.

It is expected that the FY 2018 appropriations process will be starting in May. President Trump's FY 2018 budget is expected to be released in mid-May.

Federal Legislative Issues

SCAQMD's state legislative consultants provided only written reports on various key issues in Sacramento, which can be seen in the April Legislative Committee packet.

State Legislative Issues

AB 1014 (Cooper) Diesel Backup Generators: Health Facility

AB 1014 would codify industry guidelines that direct health facilities to limit the tests they conduct of their diesel backup generators and standby systems. This includes a requirement that hospitals test their diesel generators once a month for a half-hour period.

Staff recommended a position of SUPPORT on this bill. The Legislative Committee and later the Governing Board approved that recommendation.

SB 49 (De Leon) California Environmental, Public Health, and Workers Defense Act of 2017

This bill seeks to insulate California from rollbacks in federal environmental regulations and public health protections. This bill would establish current federal clean air, climate, clean water, worker safety, and endangered species standards to be enforceable under state law, in an attempt to counter any weakening of federal standards. The bill also prohibits state and local agencies from amending or revising any of their rules or regulations to be less stringent than the baseline federal law, but allows for the establishment of more stringent rules or regulations.

It was reported that staff is supportive of the bill's basic intent to maintain existing clean air requirements in effect regardless of potential future actions weakening EPA regulations or the Clean Air Act. However, CAPCOA has identified a number of unintended consequences which could be detrimental to the District's operations.

Districts would be required to adopt a wide variety of federal requirements including new source performance standards, national emission standards for hazardous air pollutants, and prevention of significant deterioration permit programs, which would require significant staff and Board resources to adopt, implement and enforce.

Staff believes it would be more workable to identify certain key Clean Air Act requirements, such as the existing National Ambient Air Quality Standards and the obligation to attain such NAAQS by specified dates, which should be incorporated into state law, rather than trying to impose the entire Clean Air Act and its implementing mechanisms.

Staff recommended a position of Work with Author; because neither this recommendation nor any other was approved by the Committee, this item went to the Governing Board with no recommendation. The Governing Board later approved staff's original recommendation to WORK WITH AUTHOR.

H.R. 1090 (Reed) Technologies for Energy Security Act of 2017

This bill would reinstitute and extend, through 2021, commercial and residential installation tax credits for geothermal heat pumps, fuel cells, micro turbines, small wind and combined heat and power.

This bill would also make stationary fuel cells and other clean energy technologies more affordable and help spur innovation. By establishing tax parity for fuel cell technologies, thermal energy, combined heat and power, and other technologies, treating them all the same as wind and solar, it will help spur the development of these technologies and not favor one technology over another.

Staff recommended a position of SUPPORT. The Legislative Committee and later the Governing Board approved that recommendation.

Informational Item on SB 1 (Beall) – Transportation Funding

SB 1 dedicates funds to transportation infrastructure repairs as well as other projects which could potentially increase transportation emissions. However, SB 1 does not expressly dedicate funds to mitigate air quality impacts of goods movement projects included within the bill.

It is unclear what potential impacts SB 1 could have on the California Air Resources Board's and SCAQMD's ability to adopt emission reduction measures. SB 1 prevents CARB from requiring the replacement and repowering of commercial heavy duty vehicle engines until the vehicles reaches 800,000 miles or 18 years past engine certification, whichever is earlier. However, SB 1 includes a statement of legislative intent which states that it is not meant to limit the authority of CARB and local air districts. SCAQMD legal staff noted that the language included is ambiguous and could invite litigation. However, CARB and the California State Transportation Agency stated that this language does not have any effect on CARB or local air district indirect source authority.

SB 1 also incorporates the provisions of SB 174 (Lara) and requires the Department of Motor Vehicles to deny registration to trucks and buses that do not meet CARB's clean truck and bus mandate.

Proposed Legislation for Approval

SCAQMD legal staff presented on proposed legislation for approval. This proposed legislation was based on amendments made to the 2016 AQMP, which directed staff to seek necessary legislative authority to authorize SCAQMD to require accelerated purchase and use of near-zero and zero-emission heavy duty on-road vehicles for public fleets.

A late adjustment to the proposed amendments to the bill language was provided by SCAQMD staff at Legislative Committee. These changes to the proposed amendment language further clarified the definition of "near-zero and zero emission vehicles" and also clarified that the local air district would set the requirements related to those definitions, rather than the fleet operators. Additionally, SCAQMD staff has secured a potential bill, AB 302, which was amended to include the new proposed language. The bill was authored by Assembly Member Mike Gipson.

Staff recommended approval for the legislative proposal. At the Committee's request, the legislative proposal was continued until the next Legislative Committee meeting on May 12, 2017. However, the Governing Board took a Support with Amendments position on this item. However, the bill did not pass its first policy committee in the State Assembly and is now a 2-year bill.

Proposed Legislative Action for Approval

This proposed action would be to work with the Governor's Office and the Legislature to recover costs associated with proactive region-wide toxics air monitoring plan to identify high risk emitters of toxic air contaminants, similar to what was experienced in Paramount, and would be asking for approximately \$7.7 million per year for ten years to recover costs for the air toxics program.

Staff recommended approval for the proposed legislative action relating to seeking funding for enhanced toxic air monitoring. The Legislative Committee and later the Governing Board approved that recommendation.

Discussion

David Rothbart inquired about AB 302, specifically the Legislative Committee's concerns and the Governing Board's position. Dr. Lyou explained that an industry advocacy organization asked the Assembly Member to amend the bill, even though South Coast had not taken a position on it. A scheduled Transportation Hearing subsequently occurred and SCAQMD's position was needed.

Dr. Lyou inquired about a series of bills introduced by Assembly Member Muratsuchi, regarding a potential ban on modified HF use for refineries. Staff commented that the bill was made a two-year bill.

Art Montez inquired about the money borrowed by the state and funding for the State's Cap-and-Trade Program and the bullet train. Staff indicated that the Cap-and-Trade funding is potentially available but is currently on hold. Art Montez further inquired about how to guarantee that funds set aside for a particular program will not be encumbered for another program. Staff indicated that there are many ways that the Governor's office and State legislators can allocate available money.

Art Montez asked if there are any programs to address the purchase of bonds, specifically for more efficient air conditioning units for schools. Dr. Lyou replied that he was not aware of any such programs, but suggested he contact Edison or the California Energy Commission.

Jaclyn Ferlita inquired if there is any support or insight for future Cap-and-Trade bills. Staff indicated that it is difficult to predict, but will know more towards the end of the legislative year. Dr. Lyou commented that a busy end-of-year session is expected. Bill Quinn added that an important hearing was currently occurring with the Senate Environmental Quality Committee on the future of the Cap-and-Trade Program.

Bill LaMarr inquired if there was any movement on the proposed container fee. Staff indicated this is being pursued at a Federal, national level.

Amy Zimpfer commented that the Diesel Emissions Reduction Act (DERA) funding was increased significantly and proposals are being solicited nationwide, for projects that achieve significant reductions in diesel emissions.

UPDATE REGARDING LITIGATION ITEMS AND RELATED EPA ACTIONS

William Wong proved updates to the litigation status report handout.

- Case #1 – SCAQMD is working on an agreement to relocate one of the monitors, negotiations are ongoing.
- Case #2 – A case management conference occurred on May 8, 2017 and the court has set a trial date for February 27, 2018. Other facilities in Paramount are also seeking damages, along with an outstanding class action lawsuit. The court is considering relating these lawsuits to SCAQMD's case.
- Case #6 – An extended briefing schedule was entered into with the plaintiffs, which the court has not yet approved. The trial date could be moved to November 2017.

Discussion

David Rothbart inquired about Case #3 and what could happen if the contingency measures could not be used. Staff indicated that SCAQMD has relied on these measures and if this case is not overturned there could be severe consequences.

OUTREACH EFFORTS

Lisa Tanaka presented on the outreach component of Legislative, Public Affairs and Media Relations (LPAM). The presentation covered numerous aspects of outreach for the SCAQMD ranging from government relations to the general public, to health and environmental and educational organizations, and chambers of commerce. The presentation included an overview of the types of outreach activities such as town hall meetings, rules, permitting, events, partnerships with Small Business Assistance and other initiatives.

Discussion

TyRon Turner inquired about LPAM's community outreach plan and the targeted areas. He further explained that he is a neighborhood council member and has realized that many community members are unaware of SCAQMD, and inquired about the possibility of a future community forum in South Los Angeles. Ms. Tanaka responded that her geographic field staff (GEO) staff would welcome the opportunity to provide presentations for various groups, and provided a recap of the various meetings/events that her staff currently attends. She mentioned the calendar of events located on AQMD's website.

Dr. Lyou inquired about upcoming events and the locations. Ms. Tanaka commented that the SCAQMD mobile app is a great way to stay current and the calendar of events is updated regularly. She further suggested that HRAG members can provide her with requests for upcoming events, where GEO staff can attend to promote AQMD awareness.

Art Montez inquired about possible outreach to the Orange County school districts, educators and school boards. Staff requested that Mr. Montez provide a contact list for follow-up.

Bill LaMarr inquired about the Small Business Assistance team and their function within LPAM. Ms. Tanaka indicated that the team consists of a Public Advisor and five staff members, whose functions are to conduct no-fault inspections, assist with permit applications and issuance of clearance letters for small businesses.

Bill LaMarr commented on the number of clearance letters issued in the past two months and how staff is not aware of facility operations, especially in the current Paramount issue. Ms. Tanaka indicated that revisions were recently made to the clearance letter process and that a Pilot Program was initiated with the City of Paramount for renewal of business licenses, where SCAQMD will also review the requests; check on business types, their processes and permitted/non-permitted equipment. Staff indicated that the GEO staff are educating cities on business license and clearance letter policies, and have requested cities' business lists to compare with SCAQMD facility lists.

CONSENSUS BUILDING

Jayne Joy inquired about the possibility of the group participating in a tour of CR&R facility in Perris. Dr. Lyou indicated that this is complicated because of public meeting laws, but encouraged individuals to tour the facility.

SUBCOMMITTEE STATUS REPORTS

A. Freight Sustainability (Dan McGivney)

Dan McGivney gave a report on the following items.

- California Energy Commission's May 2017 meeting agenda includes items to approve a \$3M grant to CR&R for expansion, and freight sustainability projects for zero or near zero technology.
- The State is looking at how to divide up the \$420M settlement from Volkswagen.
- On May 30, 2017 there is a meeting on the implementation of the California Freight Sustainability Plan (Caltrans, Los Angeles).

Discussion

Dr. Lyou reported that the Ports of Los Angeles and Long Beach continue to work on their Clean Air Action Plans.

B. Small Business Considerations (Bill LaMarr)

There was no report.

C. Environmental Justice (Curt Coleman)

There was no report.

D. Climate Change (David Rothbart)

There was no report.

REPORT FROM AND TO THE STATIONARY SOURCE COMMITTEE

Jill Whynot reported on items related to the April and May 2017 meetings.

- Draft Assessment of tertiary-Butyl Acetate (tBac) White Paper.
- Proposed Amendments to Rule 1147.
- Proposed Amended Rules 219 and 222.
- Nonattainment New Source Review Compliance Demonstration for 2008 Ozone Standard.
- Proposed Amended Rule 1118.
- Proposed Rule 1466.

Discussion

Curt Coleman requested that staff not schedule rule working group meetings when Home Rule Advisory Group meetings are occurring.

OTHER BUSINESS

Michael Downs inquired about the transportation fuel sector waiver process, should a catastrophic event occur in the Southern California area. Staff indicated that a Governor's declaration would waive requirements, for both Statewide and local catastrophic events.

PUBLIC COMMENT

There were no public comments.

ADJOURNMENT

The meeting was adjourned at 12:20 p.m. The next meeting of the Home Rule Advisory Group is scheduled for 10:00 a.m. on July 12, 2017, and will be held at SCAQMD in Conference Room CC8.

**South Coast Air Quality Management District
HOME RULE ADVISORY GROUP – Attendance Record – 2017**

	NAME (Term: 1/1/17 - 1/1/2019)	1/11	FEB	3/15	APR	5/10	JUN	7/12	AUG	9/13	OCT	11/8	DEC
	Board/Member, Business & Community Reps, SCAQMD Staff												
1	Dr. Joseph Lyou, Chairman	X	dark	X	dark	X	dark		dark		dark		dark
2	Dr. Philip Fine (Agency Member) - SCAQMD	X*		X		X*							
3	Zimpfer, Amy (Agency Member) - EPA <i>Representing Elizabeth Adams</i>	T		A*		T							
4	Gallenstein, Chris (Agency Member) - CARB <i>Representing Richard Corey</i>	T*		T		T							
5	Chang, Ping (Agency Member) - SCAG <i>Alternate – Rongsheng Luo</i>	T*		T*		T*							
6	Carroll, Mike (Business Representative) <i>Alternate – Robert Wyman</i>	A		A		A							
7	Coleman, Curtis (Business Representative) <i>Alternate – Susan Stark</i>	X		X		X							
8	Senecal, Patty (Business Representative)	A		A		A							
9	Joy, Jayne (Business Representative) <i>Alternate – Al Javier</i>	T		A*		X							
10	La Marr, Bill (Business Representative)	X		X		X							
11	McGivney, Dan (Business Representative) <i>Alternate – Noel Muyco</i>	X		X*		X							
12	Newman, Penny (Environmental Representative)	X		X		A							
13	Roberts, Terry (Environmental Representative)	X		X		X							
14	Quinn, Bill (Business Representative)	T		T		T							
15	Wyenn, Morgan (Environmental Representative)	A*		A*		A*							
16	Ali, Micah (Parker Representative)	T		A		A							
17	Downs, Michael (McCallon Representative)	X		A		X							
18	Ferlita, Jaclyn (Lyou Representative)	X		A*		X							
19	Montez, Art (Lyou Representative)	A		X		X							
20	Olson, Mark (Rutherford Representative)	X		A*		X							
21	Rothbart, David (Mitchell Representative)	X		X		X							
22	Rubio, Larry (J. Benoit Representative)	A*		T		T							
23	Smith, Larry (B. Benoit Representative)	X		A		X							
24	Turner, TyRon (Burke Representative)	T		X		X							

Attendance Codes			
X	Present	X*	Alternate in Attendance
T	Teleconference Participation	T*	Teleconference Participation (Alternate)
A	Absence	A*	Absence Excused

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office

June 2017 Settlement Penalty Report

Total Penalties

Civil Settlements:	\$582,963.00
SEP Cash Settlements:	\$1,250,000.00
MSPAP Settlements:	\$28,515.00
Hearing Board Settlements:	\$15,000.00
Total Cash Settlements:	\$1,876,478.00
Total SEP Value:	\$250,000.00
Fiscal Year through 6 / 2017 Cash Total:	\$13,301,022.65
Fiscal Year through 6 / 2017 SEP Value Only Total:	\$300,000.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
Civil						
148236	AIR LIQUIDE LARGE INDUSTRIES U.S., LP	2004(f)(1) 2005 3002(c)(1)	6/27/2017	TRB	P57083	\$10,000.00
22911	CARLTON FORGE WORKS	2004	6/19/2017	DH	P64403	\$73,150.00
146284	FLAVURENCE CORPORATION	203 (b)	6/6/2017	BTG	P62373	\$365,500.00
161141	JR OIL Small Claims Case No. 17AHSC03837	41960.2 461(c) 461(c)(2)(B)	6/26/2017	JS	P64260	\$350.00
800074	LA CITY, DWP HAYNES GENERATING STATION	2004 3002	6/13/2017	NSF	P37245	\$5,000.00
800234	LOMA LINDA UNIV	3002 1134 3002(c)(1) 3002(c)(1)	6/13/2017	TRB	P58093 P59279 P59281	\$3,500.00
172005	NEW INDY ONTARIO, LLC	2004	6/1/2017	KRW	P64408	\$1,000.00
47781	OLS ENERGY-CHINO	2004	6/19/2017	TRB	P57084	\$250.00
164257	ORCHARD SUPPLY HARDWARE "OSH"	1143	6/19/2017	WW	P60340	\$85,613.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
60812	OVERHILL FARMS INC \$8000.00 for NOV \$2,000 for terms under the Order for Abatement Settlement includes terms and conditions for Hearing Board Case No. 6076-1 Facility paid penalties for four months in relation to the timeline proposed and agreed upon to install the new burners and provide source testing data for review and approval. 1153.1	203 (b) 1153.1	6/1/2017	DH	P64124	\$10,000.00
7427	OWENS-BROCKWAY GLASS CONTAINER INC	2004 2011 3002(c)(1)	6/26/2017	TRB	P57865	\$2,500.00
173247	PACIFIC CHROME SERVICES	1469	6/19/2017	TRB	P53994	\$6,000.00
800079	PETRO DIAMOND TERMINAL CO	303 1178 463 3002(c)(1) 3002(c)(1)	6/13/2017	TRB	P34694 P61510 P61511 P61512	\$7,500.00
132192	PUREENERGY OPERATING SERVICES	2012	6/15/2017	TRB	P57091	\$500.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
14437	SAN ANTONIO COMMUNITY HOSPITAL	1146 3002	6/8/2017	VKT	P59273	\$5,000.00
159208	SHAHKOT PETROLEUM, INC Small Claims Case No. 30-2017-00920600-SC-SC-HNB	461(E)(2)(A)	6/22/2017	JS	P63040	\$600.00
153199	THE KROGER CO/RALPHS GROCERY CO	2004 2004 2012 2004 2012	6/15/2017	MJR	P53143 P57090 P57863 P57870	\$6,500.00

Total Civil Settlements: \$582,963.00

Supplemental Environmental Project Settlement:

177615	Brenntag Pacific UP Yard Cash \$1,250,000.00; SEP: \$250,000.00 Facility shall pay \$250,000 as a SEP to the District and shall be managed and used by the District to benefit the residents of the District.	201, 203	6/30/2017	BTG	P60503	\$1,500,000.00
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Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
Total SEP: \$1,500,000.00						
MSPAP Settlements						
175516	7-ELEVEN #35343/MAKHTAR KAMARA	201 203(a) 461	6/22/2017	GV	P64340	\$1,000.00
175516	7-ELEVEN #35343/MAKHTAR KAMARA	461	6/22/2017	GV	P64346	\$1,300.00
182118	AESOS OIL INC	201 203(a) 41960.2 461	6/22/2017	JS	P64341	\$720.00
182118	AESOS OIL INC	201 203 (a) 461	6/22/2017	JS	P64344	\$2,580.00
143695	ANAHEIM GASOLINE FOODMART & CARWASH	461	6/22/2017	JS	P64347	\$1,365.00
169906	ARCO FACILITY, 82872, FARZ, INC.	203 (b)	6/1/2017	GC	P64324	\$1,700.00
121570	C B SHEETS	1146	6/1/2017	JS	P63910	\$675.00
55810	DEL MAR GAS, OHANES KEJEJIAN DBA	461(E)(2)(A)	6/22/2017	GC	P65001	\$650.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
118937	FAHMI TEXACO, RAGAA FAHMI, DBA	461(c)(2)(B)	6/1/2017	TF	P64309	\$1,500.00
183192	HOMELAND CENTER SHELL, AL HUSN, INC	201	6/1/2017	TF	P36747	\$550.00
158340	I & V VENTURES INC.	203 (b) 41960.2 461(c) 461(c)(2)(B)	6/1/2017	GC	P65002	\$800.00
20943	LA CO., BARRY J. NIDORF PROBATION	1146	6/1/2017	TF	P62173	\$1,100.00
37781	MONROVIA CLEANERS	1421	6/22/2017	TF	P65355	\$750.00
100159	NORTH COUNTY SAND & GRAVEL	PERP 2457	6/22/2017	GV	P65552	\$1,500.00
176731	PACIFIC TANK LINES	461(c)	6/1/2017	TF	P63125	\$750.00
157059	RENAISSANCE CLUB SPORT	1470	6/15/2017	TF	P64065	\$1,500.00
160406	RIVERSIDE USD, NORTH HIGH SCHOOL	203 (a)	6/22/2017	TF	P64163	\$375.00
24244	S.T. & I. INC.	203	6/22/2017	GV	P63510	\$1,000.00
100168	SIAM MINH CORPORATION	41960.2 461 461(c) 461(c)(2)(A) 461(c)(2)(B)	6/1/2017	GV	P63129	\$600.00

Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
78782	SO CAL SANDBAGS	PERP 2457	6/22/2017	GV	P65354	\$1,500.00
181526	STATE OF CALIFORNIA	203 (a)	6/1/2017	GV	P64165	\$2,000.00
139448	SUNRISE CLEANERS, NAM KI KIM DBA	1421	6/1/2017	GV	P65356	\$400.00
136929	T.G.L.	461 461(c)(2)(B)	6/1/2017	GV	P65011	\$450.00
182827	TORRANCE LOGISTICS COMPANY LLC	1403	6/22/2017	GV	P63558	\$1,100.00
170424	VALERO GAS	461	6/1/2017	GV	P64967	\$450.00
165278	VALLEY VIEW 76	41960.2 461	6/1/2017	GV	P64345	\$600.00
141488	VIP CLEANERS, INC	1146.2	6/1/2017	GV	P63677	\$1,600.00

Total MSPAP Settlements: \$27,565.00

Hearing Board Settlements

61981	County of Riverside Indio Juvenile Hall Hearing Board Case No. 6075-1	203(a), 1470((c)	6/22/2017	NSF		\$15,000.00
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Fac ID	Company Name	Rule Number	Settlement Date	Initials	NOV	Total Settlement
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Total Hearing Board Settlements: \$15,000.00

DISTRICT RULES AND REGULATIONS INDEX FOR JUNE 2017 PENALTY REPORTS

REGULATION II – PERMITS

- Rule 201 Permit to Construct (*Amended 1/5/90*)
- Rule 203 Permit to Operate (*Amended 1/5/90*)

REGULATION III - FEES

- Rule 303 Hearing Board Fees (*Amended 5/11/01*)

REGULATION IV - PROHIBITIONS

- Rule 461 Gasoline Transfer and Dispensing (*Amended 6/15/01*)
- Rule 463 Storage of Organic Liquids (*Amended 3/11/94*)

REGULATION XI - SOURCE SPECIFIC STANDARDS

- Rule 1134 Emissions of Oxides of Nitrogen from Stationary Gas Turbines (*Amended 8/8/97*)
- Rule 1143 Consumer Paint Thinners & Multi-Purpose Solvents
- Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters (*Amended 11/17/00*)
- Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers (*Adopted 1/9/98*)
- Rule 1153.1 Emissions Of Oxides Of Nitrogen From Commercial Food Ovens
- Rule 1178 Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities (*Amended 4/7/06*)

REGULATION XIV – TOXICS

- Rule 1403 Asbestos Emissions from Demolition/Renovation Activities (*Amended 4/8/94*)
- Rule 1421 Control of Perchloroethylene Emissions from Dry Cleaning Operations (*Amended 6/13/97*)
- Rule 1469 Hexavalent Chromium Emissions From Chrome Plating and Chromic Acid Anodizing Operations (*Adopted 10/9/98*)
- 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 (*Amended 5/11/01*)
- Rule 2005 New Source Review for RECLAIM (*Amended 4/20/01*)
- Rule 2011 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SO_x) Emissions
- Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions
(*Amended 5/11/01*)

REGULATION XXX - TITLE V PERMITS

- Rule 3002 Requirements (*Amended 11/14/97*)

CALIFORNIA HEALTH AND SAFETY CODE § 41700

- 41960.2 Gasoline Vapor Recovery

CODE OF FEDERAL REGULATIONS

- 40 CFR – Protection of the Environment

CALIFORNIA CODE OF REGULATIONS

- PERP 2457 Requirements for Portable Equipment Units

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 25

REPORT: Technology Committee

SYNOPSIS: The Technology Committee held a meeting on Friday, July 21, 2017. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Sheila Kuehl, Vice Chair
Technology Committee

MMM:pmk

Committee Members

Present: Supervisor Sheila Kuehl (Vice Chair), Mayor Pro Tem Larry McCallon, Council Member Judith Mitchell, Council Member Dwight Robinson, Supervisor Janice Rutherford

Absent: Council Member Joe Buscaino (Chair)

Call to Order

Vice Chair Kuehl called the meeting to order at 12:00 p.m. and announced that Agenda Item #4 was withdrawn by staff.

ACTION ITEMS:

1. Approve Additional Funds for Replacement of Onboard CNG Fuel Tanks on School Buses

Since 2001, the SCAQMD has replaced over 1,600 pre-1994 diesel school buses primarily with CNG school buses. In April 2012, the Board issued a Program Announcement using \$3 million from the Carl Moyer Program AB 923 Fund (80) to replace onboard CNG fuel tanks on a first-come, first-served basis for public school buses at least 14 years old. In November 2016, the Board approved an additional \$2 million to continue the Program, and these funds are now exhausted. This action is to approve an additional \$3 million from the Carl Moyer Program AB 923 Fund (80)

to continue on a first-come, first-served basis the replacement of onboard CNG fuel tanks for public school buses.

Supervisor Rutherford asked how many CNG fuel tanks need to be replaced. Staff responded that we have funded about 1,600 CNG school buses under the Lower Emission School Bus Program, and we have replaced 250 CNG fuel tanks under the current program.

Council Member Robinson asked how many pre-1994 school buses remain in the South Coast Air Basin. Staff responded there are about 800 pre-1994 school buses remaining, of which about 200 of these are pre-1987. Council Member Robinson asked if these older buses can be prioritized to receive the funding. Staff responded the older buses are given priority for funding.

Supervisor Rutherford asked how we prevent one entity from using up the majority of funds, and staff responded that there are percentage limits on awards that can be received

Council Member Robinson commented that SCAQMD should seek additional funding to replace school buses at a faster rate. Staff explained the current efforts to obtain additional incentive funding, and mentioned the Carl Moyer Program has been updated to include school buses as an eligible category. Staff also commented that we plan to release a new Program Announcement for the Lower Emission School Bus Program in October to fund additional buses.

Supervisor Kuehl asked if there is a recycling program for the used tanks. Staff responded the tanks are subject to CHP requirements that prevent them from being re-used after expiration. Staff will contact the schools to verify what happens to the used tanks after they expire and are replaced.

Moved by Robinson; seconded by McCallon; unanimously approved by the committee.

2. Execute Contract to Cosponsor Versatile Plug-In Auxiliary Power Systems Demonstration

In December 2015, the Board awarded a contract to the Electric Power Research Institute, Inc., (EPRI) to cosponsor development and demonstration of a Versatile Plug-In Auxiliary (VAP) System. EPRI is now requesting to use the previously approved cost-share for the second phase of the VAP System demonstration to evaluate the benefits and impacts of electric auxiliary power on emissions and fuel usage in various onboard and stationary applications. Up to three units will undergo baseline tests at Southern California Edison's EV Technical Center prior to field demonstration within SCAQMD. This action is to execute a contract with EPRI to

demonstrate up to three VAP systems in various applications in an amount not to exceed \$125,000 from the Clean Fuels Program Fund (31).

Council Member Mitchell asked what applications can use the portable power unit. Staff replied that the design allows for a broad range of uses, including portable diesel gensets and power supplies for work tools, eliminating or minimizing engine idling. The mobile nature also allows for charging plug-in vehicles.

Supervisor Kuehl asked when LADWP or the other partner would be confirmed. Staff responded that the proponent is in discussion with LADWP, but has not yet executed an agreement. Staff would provide an update if agreement with LADWP or the other partner is reached before the September Board meeting.

Moved by Mitchell; seconded by Robinson; unanimously approved by the committee.

3. Execute Contract to Demonstrate Low NOx Combustion Technology on Refinery Boiler

The 2016 AQMP identifies development and implementation of new technologies to further reduce NOx emissions from stationary combustion sources as a key strategy. It is also equally important to assess new technologies to prevent or mitigate any negative impact on air quality and public health. ClearSign Combustion Corporation recently submitted an unsolicited proposal that addresses these needs using a low NOx, non-Selective Catalytic Reduction combustion technology. Staff recommends cost-sharing the proposed project to demonstrate retrofitting their Duplex low NOx combustion technology without the use of reagents, such as ammonia or urea, on a refinery boiler. This action is to execute a contract with ClearSign to cost-share this project in an amount not to exceed \$320,000 from the Rule 1118 Mitigation Fund (54).

Council Member Mitchell noted that the proposed funding for this project is from Rule 1118 mitigation funds from flaring operations at refineries, which are now going back to a refinery with a history of violations to demonstrate this technology. Executive Officer Wayne Nastri explained that this is a new technology that has shown potential to get deployed quickly and achieve more immediate emission reductions. While we could wait for other funding partners, the current benefit of moving forward with the demonstration outweighs waiting.

Moved by McCallon; seconded by Mitchell; unanimously approved.

4. Recognize and Transfer Funds, Execute Agreements for Installation of Air Filtration Systems, and Reimburse General Fund for Administrative Costs

This item was withdrawn by staff. There were no public comments.

5. **Amend Contracts to Continue Implementation of Enhanced Fleet Modernization Program and Transfer Funds**

In February 2017, the Board recognized an additional \$5 million from CARB to continue implementation of the Enhanced Fleet Modernization Program (EFMP). The Board also approved contracts with consulting firms to provide assistance with implementation of the EFMP including case management, outreach and vehicle emissions testing. The Program has been highly successful in incentivizing voluntary retirement of older vehicles. Consequently, this action is to amend contracts with consulting firms in an amount not to exceed \$500,000 from the HEROS II Special Revenue Fund (56) to continue program implementation, including the addition of a new outreach strategy involving vehicle emissions monitoring in disadvantaged communities to identify high-emitting vehicles for potential voluntary replacement with cleaner, more fuel-efficient vehicles. These actions are to also transfer up to \$850,000 (comprising the above amendments and a prior \$350,000 amendment for Opus Inspection approved in February 2017) as a temporary loan from the Clean Fuels Program Fund (31) into the HEROS II Special Revenue Fund (56), until receipt of the CARB revenue.

Supervisor Kuehl expressed concerns that the public may view community monitoring as intrusive, and the invitations to participate in the program sent to the vehicle owners may be discarded. Mayor Pro Tem McCallon asked if the invitations sent to vehicle owners will be multilingual, and staff confirmed they would be.

Mayor Pro Tem McCallon also questioned whether it would be more strategic to obtain emission reductions from heavy-duty trucks. Council Member Mitchell offered background information on CARB's perspective for this program and indicated the program is intended to deploy the cleanest cars in disadvantaged communities. Council Member Robinson asked whether the proposed remote sensing technology could be used for heavy-duty trucks. Staff responded that this remote sensing technology was successfully demonstrated in a five-year study that examined in-use emissions from heavy-duty drayage trucks at the Port of Los Angeles and at a weigh station along the 91 freeway. This study showed the fleet was getting cleaner over time and identified isolated high-emitting HD trucks. Staff indicated that they could recommend the remote sensing technology be part of the Port' Clean Air Action Plan.

Supervisor Kuehl asked if there is any evaluation of the effectiveness of outreach efforts. Staff identified the various outreach efforts that have been used for this program, including weekend events and media announcements, and confirmed we are tracking which strategies are working best. Staff explained this is still considered a pilot program, and we will continue to monitor its progress over time.

Supervisor Rutherford asked if staff is coordinating with the Bureau of Automotive Repair (BAR). Staff explained that both BAR and CARB are supportive of the proposed community monitoring program. Mayor Pro Tem McCallon asked if we

know the amount of NOx reductions achieved for the dollars expended. Staff explained that the majority of funding for this program is coming from the state's GHG cap and trade program. CARB is tracking the data and reporting the amount of GHG reductions achieved by this program. Staff indicated that they can check the criteria pollutant reduction benefits.

Moved by Mitchell; seconded by Robinson; unanimously approved.

OTHER MATTERS:

6. Other Business

There was no other business.

7. Public Comments

There were no public comments.

8. Next Meeting Date

The next regular Technology Committee meeting is scheduled for Friday, September 15, 2017 at noon.

Adjournment

The meeting adjourned at 12:47 p.m.

Attachment

Attendance Record

ATTACHMENT

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT TECHNOLOGY COMMITTEE MEETING Attendance – July 21, 2017

Supervisor Sheila Kuehl	SCAQMD Board Member
Mayor Pro Tem Larry McCallon.....	SCAQMD Board Member
Council Member Judith Mitchell.....	SCAQMD Board Member
Council Member Dwight Robinson.....	SCAQMD Board Member
Supervisor Janice Rutherford	SCAQMD Board Member
Mark Abramowitz	Board Consultant (Lyou)
David Czamanske	Board Consultant (Cacciotti)
Ron Ketcham	Board Consultant (McCallon)
Andrew Silva	Board Consultant (Rutherford)
Mark Taylor.....	Board Consultant (Rutherford)
Tom Gross	Southern California Edison
Timothy Lippman	County of Los Angeles
Jordan Smith.....	Southern California Edison
Al Baez	SCAQMD Staff
Lori Berard	SCAQMD Staff
Naveen Berry.....	SCAQMD Staff
Tribrina Brown	SCAQMD Staff
Nancy Cole	SCAQMD Staff
Marjorie Eaton.....	SCAQMD Staff
Kelly Gamino	SCAQMD Staff
Evan Keith	SCAQMD Staff
Pat Krayser	SCAQMD Staff
Joseph Lopat	SCAQMD Staff
Fred Minassian	SCAQMD Staff
Lisa Mirisola.....	SCAQMD Staff
Matt Miyasato.....	SCAQMD Staff
Wayne Nastri	SCAQMD Staff
Dean Saito	SCAQMD Staff
Dominic Tung.....	SCAQMD Staff
Veera Tyagi	SCAQMD Staff
Mei Wang	SCAQMD Staff
Vicki White	SCAQMD Staff
Jill Whynot	SCAQMD Staff
Vasken Yardemian	SCAQMD Staff

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 26

REPORT: Mobile Source Air Pollution Reduction Review Committee

SYNOPSIS: Below is a summary of key issues addressed at the MSRC's meeting on August 17, 2017. The next meeting is scheduled for Thursday, September 21, 2017, at 2:00 p.m., in Conference Room CC8.

RECOMMENDED ACTION:
Receive and file.

Ben Benoit
SCAQMD Representative on MSRC

MMM:FM:psc

Meeting Minutes Approved

The MSRC unanimously approved the minutes of the May 18, 2017 meeting. Those approved minutes are attached for your information (*Attachment 1*).

FYs 2016-18 Major Event Center Transportation Program (PA2017-05)

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 \$1,337,494. The MSRC considered recommendations concerning an additional application submitted by Foothill Transit. Foothill Transit requested the MSRC to consider an award of \$100,000 to provide special transit service to the Los Angeles County Fair in 2017 and 2018. Service would be provided from the Azusa Gold Line Station on Saturdays and Sundays during the Fair, as well as on the Labor Day holiday on September 4, 2017, providing service from one hour prior to the Fair opening and with the last bus departing 40 minutes following the Fair's closure at midnight. Service would promote the use of public transit, including bus and (by connection) rail, in lieu of personal automobile. Foothill Transit and the LA County Fair would contribute at least \$100,000 in co-funding. The MSRC approved a contract award to Foothill Transit in an amount not to exceed \$100,000 with the funding for the second year contingent

upon an assessment of the first year's performance and requiring the collection of sufficient data to help determine the effectiveness of the project as part of the FYs 2016-18 Work Program. This contract award will be considered by the SCAQMD Board at its September 1, 2017.

FYs 2016-18 Natural Gas Infrastructure Program

The MSRC approved 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, 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 30, 2018. To date, the MSRC has received one application in response to this solicitation. The MSRC approved a contract award to Penske Truck Leasing in an amount not to exceed \$82,500 for maintenance facility modification and technician training as part of the FYs 2016-18 Work Program. This contract award will be considered by the SCAQMD Board at its September 1, 2017.

FYs 2014-16 Near-Zero Engine Incentive Program

In December 2016, the MSRC approved an award to Omnitrans in an amount not to exceed \$945,000 for the purchase of 39 new buses and the re-power of 24 existing buses with engines meeting the California Air Resources Board's 0.02 g/bhp-hr Optional Standard for NOx. Omnitrans has subsequently determined that it would be more cost-effective for them to substitute the re-power of 39 buses for the 39 bus purchases, for a total of 63 re-powers. For transit buses, the MSRC's "Near-Zero" Engine Incentive Program provides \$15,000 per engine regardless of whether the new engine is equipped in a new bus, or is installed in an existing bus. There would be no change in the emissions reductions associated with the project, or its air quality cost-effectiveness. The MSRC considered and approved Omnitrans' requested contract modification. This contract award will be considered by the SCAQMD Board at its September 1, 2017.

FYs 2016-18 Local Government Partnership Program

The MSRC approved release of a Local Government Partnership ITN under the FYs 2016-18 Work Program. The ITN, with a targeted funding level of \$20,180,650, 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. All participating jurisdictions will also need to present a brief educational presentation concerning the 2016 AQMP, as provided by the MSRC, to their Council or Board. The ITN includes an open application period commencing with its release on September 1, 2017, and closing March 2, 2018, and projects will be brought to the MSRC for consideration of awards throughout and immediately following the application period. This contract award will be considered by the SCAQMD Board at its September 1, 2017.

Contract Modification Requests

The MSRC considered three contract modification requests and took the following actions:

1. City of West Covina, Contract #ML12018, which provides \$300,000 to Expand CNG Station, a 19-month extension;
2. City of El Monte, Contract #ML16046, which provides \$20,160 to Install EV Charging Stations, Downtown Parking Lot, a 24-month term extension;
3. City of El Monte, Contract #ML16083, which provides \$57,210 to Install EV Charging Stations, City Hall and Metrolink, a 24-month term extension;
4. Omnitrans, Contract #ML16120, which provides \$945,000 for Purchase 39 and Repower 24 Near-Zero CNG Vehicles, a modified statement of work and reallocation of costs between tasks, with no change to the overall contract value.
5. City of Redlands, Contract #ML14056, which provides \$125,000 to Install Bicycle Lanes, a modified statement of work and reallocation of costs between tasks, with no change to the overall contract value.

Received and Approved Final Reports

The MSRC received and unanimously approved four final report summaries this month as follows:

1. Mike Diamond/Phace Management Services LLC, #MS12033, which provided \$500,000 to Purchase 20 Medium Heavy-Duty CNG Vehicles.
2. CR&R Inc., #MS12075, which provided \$100,000 for the Expansion of Existing CNG Infrastructure.

3. Riverside County Transportation Commission, #MS12089, which provided \$249,136 to Implement Rideshare Incentives Program.
4. Foothill Transit, #MS16099 which provided \$50,000 to Implement Special Bus Service to Los Angeles County Fair.
5. Southern California Gas Company, #MS12011, which provided \$150,000 to Construct New Public-Access CNG Station – Pico Rivera.

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 June 1, 2017 through July 26, 2017 is attached (*Attachment 2*) for your information.

Attachments

Attachment 1 – Approved May 18, 2017 Meeting Minutes

Attachment 2 – June 1 through July 26, 2017 Contracts Administrator's Report



**MOBILE SOURCE AIR POLLUTION REDUCTION REVIEW COMMITTEE
THURSDAY, MAY 18, 2017 MEETING MINUTES**

21865 Copley Drive, Diamond, Bar, CA 91765 - Conference Room CC-8

MEMBERS PRESENT:

Ben Benoit, representing SCAQMD
Jack Kitowski, representing California Air Resources Board
Michele Martinez, representing SCAG
Adam Rush (Alt.), representing RCTC
Dolores Roybal Saltarelli, representing Regional Rideshare Agency (via v/c)
Mark Yamarone (Alt.), representing Los Angeles County MTA (via v/c)

MEMBERS ABSENT:

(Chair) Greg Pettis, representing RCTC
(Vice-Chair) Larry McCallon, representing SBCTA
Steve Veres, representing LA County MTA
Greg Winterbottom, representing OCTA

MSRC-TAC MEMBERS PRESENT:

MSRC-TAC Chair Gretchen Hardison, City of Los Angeles (via v/c)
Rongsheng Luo, representing SCAG
John Kato, CEC

OTHERS PRESENT:

Ric Teano, OCTA
Lauren Dunlap, SoCalGas

SCAQMD STAFF & CONTRACTORS

Leah Alfaro, MSRC Contracts Assistant
Barbara Baird, Chief Deputy Counsel
Penny Shaw Cedillo, MSRC Administrative Liaison
Ray Gorski, MSRC Technical Advisor-Contractor
John Kampa, Financial Analyst
Christina Kusnandar, Contracts Assistant
Megan Lorenz, Principal Deputy District Counsel
Matt MacKenzie, MSRC Contracts Assistant
Fred Minassian, Assistant Deputy Executive Officer
Ana Ponce, Senior Administrative Secretary
Cynthia Ravenstein, MSRC Contracts Administrator
Vicki White, Technology Implementation Manager
Paul Wright, Audio Visual Specialist

CALL TO ORDER

- Call to Order
- MSRC Member Michele Martinez chaired the meeting in the absence of MSRC Chair Greg Pettis and MSRC Vice-Chair Larry McCallon. Ms. Martinez called the meeting to order at 2:00 p.m. The following members and alternates were present: BENOIT, MARTINEZ, ROYBAL SALTARELLI, RUSH, YAMARONE.

- Opening Comments

There were no opening comments.

- Election of MSRC Chair and Vice Chair

MSRC Member Michele Martinez recognized the agenda stated the election of MSRC Chair and Vice-Chair. She questioned are you ready or do we continue to the next meeting? MSRC Contracts Administrator Cynthia Ravenstein responded that the MSRC policy does state the elections will be held in May. Chief Deputy Counsel Barbara Baird stated there's no statutory requirements. There is also no specific time limit for the term of Chair and Vice Chair on the MSRC. I think we could say the existing Chair and Vice Chair continue until the next meeting.

Nominations for the Chair and Vice Chair positions were opened.

MSRC MEMBER BEN BENOIT NOMINATED MSRC CHAIR GREG PETTIS AND MSRC VICE CHAIR LARRY MCCALLON TO SERVE AS CHAIR AND VICE CHAIR, RESPECTIVELY, FOR ANOTHER TERM.

No further nominations were offered, so nominations were closed.

THE MSRC UNANIMOUSLY VOTED TO APPROVE THE ABOVE NOMINATIONS.

AYES: BENOIT, MARTINEZ, ROYBAL SALTARELLI, RUSH, YAMARONE.

NOES: NONE.

- Ms. Ravenstein stated there have been some shifts at SCAQMD and, unfortunately, Ana Ponce is not going to be continuing as the administrative support staff for the Committee. She is here to help the new person, Penny Shaw Cedillo. We're glad to have Penny join us.
- Chief Deputy Counsel Barbara Baird stated that Veera Tyagi is presenting at a seminar today in San Francisco and is not able to be here. She's also going to be transitioning into handling the Board's Technology Committee. Due to her heavier workload, Ms. Tyagi will be helping Megan Lorenz transition into advising the MSRC over the next couple of months. You're seeing a lot of new faces so bear with us. We hope to continue to carry on with the good traditions of the MSRC.

Ms. Martinez added welcome to those new and to those leaving, we will miss you but we understand that you have to go and do other things.

STATUS REPORT

MSRC-TAC Chair Gretchen Hardison reported that Governor Brown has released the May revised budget and there are some interesting implications for transportation funding. In addition, the Governor's Office of Planning and Research has published some planning resources, also of interest. There are a number of workshops and regulatory items going on. She urged the Committee to take a quick look at the Clean Transportation Policy Update and pass along to your folks.

Copies of the Clean Transportation Policy Update were distributed at the meeting.

[MSRC Member Jack Kitowski arrived at 2:04 p.m.]

CONSENT CALENDAR (Items 1 through 7) **Receive and Approve Items**

MSRC Member Michele Martinez stated for the record that she has to recuse herself from the Ware Disposal portion of Agenda Item #2 because she received a campaign contribution from them; however, she is able to vote on the Orange County Transportation Authority portion of the same Agenda Item #2.

MSRC Member Ben Benoit and MSRC Alternate Adam Rush stated that they do not have any financial interest in Agenda Item #7, but disclosed for the record that they are members of Riverside County Transportation Commission, which is involved in this item.

Ms. Martinez turned the meeting over to MSRC Member Ben Benoit.

Agenda Item #1 – Minutes of the February 16, 2017 and March 16, 2017 MSRC Meetings

The minutes of the February 16 and March 16, 2017 were distributed at the meeting.

ON MOTION BY MSRC ALTERNATE ADAM RUSH, AND SECONDED BY MSRC MEMBER BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #7, THE MSRC UNANIMOUSLY APPROVED THE FEBRUARY 16 AND MARCH 16, 2017 MSRC MEETING MINUTES.

AYES: BENOIT, MARTINEZ, ROYBAL SALTARELLI, YAMARONE, RUSH, KITOWSKI
NOES: NONE.

ACTION: Staff will include the February 16 and March 16, 2017 MSRC meeting minutes in the MSRC Committee Report for the June 2, 2017 SCAQMD Board meeting and will place a copy on the MSRC's website.

Agenda Item #2 – Summary of Final Reports by MSRC Contractors

The MSRC received and approved two final report summaries this month as follows: 1) Ware Disposal, #MS12034, which provided \$133,070 for the Purchase of Eight Medium-Heavy Duty

Vehicles; and 2) Orange County Transportation Authority (OCTA), Contract #MS14058, which provided \$1,250,000 to implement various Traffic Signal Synchronization Projects.

ON MOTION BY MSRC ALTERNATE ADAM RUSH AND SECONDED BY MSRC MEMBER BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #2 THROUGH #7, THE MSRC UNANIMOUSLY APPROVED THE FINAL REPORTS LISTED ABOVE.

AYES: BENOIT, MARTINEZ (ON THE OCTA ITEM ONLY), ROYBAL SALTARELLI, YAMARONE, RUSH, KITOWSKI.

NOES: NONE.

RECUSE: MICHELE MARTINEZ ON THE WARE DISPOSAL ITEM ONLY.

ACTION: MSRC staff will file the final reports and release any retention on the contracts.

Receive and File Items

Agenda Item #3 – MSRC Contracts Administrator’s Report

The MSRC AB 2766 Contracts Administrator’s Report for February 23 through May 10, 2017 was included in the agenda package.

ON MOTION BY MSRC ALTERNATE ADAM RUSH AND SECONDED BY MSRC MEMBER BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #7, THE MSRC UNANIMOUSLY VOTED TO RECEIVE AND FILE THE CONTRACTS ADMINISTRATOR’S REPORT FOR FEBRUARY 23 THROUGH MAY 10, 2017.

AYES: BENOIT, MARTINEZ, ROYBAL SALTARELLI, YAMARONE, RUSH, KITOWSKI.

NOES: NONE.

ACTION: Staff will include the MSRC Contracts Administrator’s Report in the MSRC Committee Report for the April 7, 2017 SCAQMD Board meeting.

Agenda Item #4 – Financial Report on AB 2766 Discretionary Fund

A financial report on the AB 2766 Discretionary Fund for the period ending April 30, 2017 was included in the agenda package.

ON MOTION BY MSRC ALTERNATE ADAM RUSH AND SECONDED BY MSRC MEMBER BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #2 THROUGH #7, THE MSRC UNANIMOUSLY VOTED TO RECEIVE AND FILE THE FINANCIAL REPORT FOR THE PERIOD ENDING APRIL 30, 2017.

AYES: BENOIT, MARTINEZ (ON THE OCTA ITEM ONLY), ROYBAL SALTARELLI, YAMARONE, RUSH, KITOWSKI.

NOES: NONE.

ACTION: No further action is required.

Mr. Benoit returned the meeting to Ms. Martinez.

For Approval – As Recommended**Agenda Item #5 – Consider 18-Month Term Extension by City of Baldwin Park, Contract #ML12045 (\$400,000 - Install CNG Station)**

The City requests an 18-month extension due to delays associated with coordinating with a new partner, the County of Los Angeles. The MSRC-TAC unanimously recommended approval.

ON MOTION BY MSRC ALTERNATE ADAM RUSH AND SECONDED BY MSRC MEMBER BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #2 THROUGH #7, THE MSRC UNANIMOUSLY VOTED TO APPROVE 18-MONTH TERM EXTENSION TO THE CITY OF BALDWIN PARK, CONTRACT #ML12045.

AYES: BENOIT, MARTINEZ (ON THE OCTA ITEM ONLY), ROYBAL SALTARELLI, YAMARONE, RUSH, KITOWSKI.

NOES: NONE.

ACTION: Staff will amend the above contract accordingly.

Agenda Item #6 – Consider 2-Year Term Extension by City of Palm Desert, Contract #ML16072 (\$56,000 – Install EV Charging Station)

Contract #ML16072 was originally executed with a term sufficient to cover three years of operation, but the FYs 2014-16 Local Government Match Program requires five years of operation for Level III/Fast-Charge charging stations. The City requests an extension to December 31, 2021 in order to cover the required five years of operation. The MSRC-TAC unanimously recommended approval.

ON MOTION BY MSRC ALTERNATE ADAM RUSH AND SECONDED BY MSRC MEMBER BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #2 THROUGH #7, THE MSRC UNANIMOUSLY VOTED TO APPROVE A 2-YEAR TERM EXTENSION FOR CITY OF PALM DESERT, CONTRACT #ML16072.

AYES: BENOIT, MARTINEZ (ON THE OCTA ITEM ONLY), ROYBAL SALTARELLI, YAMARONE, RUSH, KITOWSKI.

NOES: NONE.

ACTION: Staff will amend the above contract accordingly.

Agenda Item #7 – Consider Modified Scope by Riverside County Transportation Commission (RCTC), Contract #MS14059 (\$1,250,000 – Implement Signal Synchronization Projects)

RCTC requests to expand the scope of one of the projects specified in the contract. The Highway 111 project in the Coachella Valley was originally limited to monitoring of signals along the Highway 111 corridor from Racquet Club Road in Palm Springs to Indio Boulevard in the City of Indio and along Harrison Street between Park Lane and Avenue 52 in the City of Coachella. RCTC proposes to expand the scope to cover nine cities, as well as unincorporated areas, with no increase in cost to the MSRC.

ON MOTION BY MSRC ALTERNATE ADAM RUSH AND SECONDED BY MSRC MEMBER BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #2 THROUGH #7, THE MSRC UNANIMOUSLY VOTED TO APPROVE THE MODIFIED SCOPE BY RIVERSIDE COUNTY TRANSPORTATION COMMISSION (RCTC), CONTRACT #MS14059.

AYES: BENOIT, MARTINEZ (ON THE OCTA ITEM ONLY), ROYBAL SALTARELLI, YAMARONE, RUSH, KITOWSKI.

NOES: NONE.

ACTION: This contract modification will be considered by the SCAQMD Board at its meeting on June 2, 2017.

ACTION CALENDAR

FYs 2016-18 WORK PROGRAM

Agenda Item #8 – Consider Approval of RFP for MSRC Technical Advisor Services

MSRC-TAC Chair Gretchen Hardison reported it is time to solicit proposals for consultants to provide technical advice to the MSRC and the MSRC-TAC to help implement the MSRC Work Programs. The duties of the Technical Advisor include: preparing RFPs and contract preparation assistance; a great deal of Work Program support; meeting attendance; and special projects assigned by the MSRC. Our current Technical Advisor's contract goes through September. The TAC is recommending that this next contract have a base 27-month term plus a 24-month option period. The reason for the 27-month term is to adjust our schedule, so we don't hit the Governing Board's vacation time at the end of the summer. The budget for the Technical Advisor would be set upon award. We are hoping, if the MSRC approves this item today, the RFP can go to the Governing Board and be released on June 2, proposals will be due on July 13. The Evaluation Committee has reserved a day for interviews as needed on or about July 27. We would like to bring this item for MSRC consideration on August 17.

MSRC Member Jack Kitowski questioned if it was decided that a two-year term was a good moderate amount as opposed to three years or longer? People would think the assistance you have here is very solid and we've been able to utilize this effectively, even every two years is a lot of work to go through. MSRC Contracts Administrator Cynthia Ravenstein answered in the past this was actually one year, and then three one-year options. This represents a much streamlined process from the way it used to be. No one has ever suggested that it be done for a longer period of time. Mr. Kitowski stated that he would suggest it, but he is also fine with the way it is. MSRC Member Ben Benoit questioned whether Mr. Kitowski is suggesting that we allow a longer time before awarding the contract? Mr. Kitowski replied no, he was suggesting that the period of time for them to be under contract be longer, so we don't have to go through this process every two years. Deputy Chief Counsel Barbara Baird added there is 24-month option on this process as well. Ms. Ravenstein added that process is a lot simpler than going to bid and competing.

ON MOTION BY MSRC MEMBER BENOIT AND SECONDED BY MSRC ALTERNATE ADAM RUSH, THE MSRC UNANIMOUSLY VOTED TO APPROVE THE RFP FOR MSRC TECHNICAL ADVISOR SERVICES.

AYES: BENOIT, KITOWSKI, MARTINEZ, ROYBAL SALTARELLI, RUSH, YAMARONE.

NOES: NONE.

ACTION: This RFP will be considered by the SCAQMD Board at its June 2, 2017 meeting.

Agenda Item #9 – Consider Application Received under the Major Event Center Transportation Program

Ray Gorski, MSRC Technical Advisor, reported the agenda package includes a proposal under the FYs 2016-18 Major Event Center Transportation Program, from the Orange County Transportation Authority (OCTA) to have the MSRC help sponsor two years of the OCTA's Orange County Fair Express. This has been implemented in past years. This proposal is seeking a total amount of \$834,222 in MSRC Clean Transportation funding to be matched by no less than \$1,061,598 from the Orange County Fair plus OCTA and their other project partners. The service has been growing in popularity over the last couple of years. It provides several pick up locations, listed on super page 82 of the staff report, where folks can access the express bus service to the OC Fair. Several of those are associated with major transit centers. The goal is to have multiple forms of public transit utilized to access the fair in lieu of a personal automobile. There is a discount on Fair admission which is offered if you use this service, as in past years. The buses that will be deployed are going to be a combination of both their current natural gas fueled buses as well as their near-zero natural gas buses. In the prior Work Program, the MSRC offered incentive monies to help buy down the cost of the new natural gas engines which are certified by the Air Resources Board to the optional NO_x standard of 0.2 g/bhp-hr. These will be the cleanest natural gas buses which are commercially available at this time. This service will utilize these buses, in part. We have included on super pages 83-85 the various forms of advertising outreach that the OCTA will be implementing to insure that people are aware of this opportunity. One thing that is very important to note, they have made a commitment to operate exclusively on renewable natural gas. The renewable natural gas will have an air quality benefit in greenhouse gas reductions in addition to criteria air pollutants such as the oxides of nitrogen and reactive organic compounds.

MSRC Member Ben Benoit asked if we know where they are getting their renewable natural gas from. Mr. Gorski replied they have a contract, but he could not say with certainty if it's with Clean Energy, Redeem or another fuel provider. We can certainly find that out, but they have made a commitment to use renewable natural gas. MSRC Member Jack Kitowski stated he was glad to see OCTA integrating in the low NO_x natural gas engines. He is very supportive of these types of programs. They have a lot of opportunity to showcase both the opportunity to go on public transit and the cleanest technologies. As part of the general rule, we should try to make sure we are highlighting the cleanest technology. Mr. Kitowski added that Orange County has one fuel cell bus and they are planning on getting more. The ones they are planning on getting are the better ones later on. The timing is not going to work for this but, as a general rule, it's good that the cleanest technology ends up being showcased. He is really interested in feedback from these riders after-the-fact and understanding best practices and the matrix people use to assess whether the money was well spent or the advertising was well spent. What are the ways to get this message across? Part of that is a little self-serving, he said, because he would like to learn what the best practices are and use them in other areas. He's hoping we can all get information we can learn from.

Mr. Gorski offered that the MSRC has been implementing the Events Program for several years now and we do have some thoughts relative to what does constitute best practices. We'd be more than happy to put together a presentation for this Committee, either at your next meeting or the following one, maybe coincidentally with the next proposals that are brought forth for your consideration. One thing I need to add because it was not in the staff report, is information that was conveyed to us yesterday by the OCTA. You will note that in this staff report it said that the

service will be implemented on Saturdays. There will be additional co-funding brought to the program and that is going to also implement services on Fridays. Even though the MSRC portion is just funding the weekend service, the overall service will include Friday.

MSRC Member Michele Martinez inquired how many people have been participating. Are we keeping track year after year? What is the trend? Mr. Gorski replied the trend for this specific project is a relatively steep increase. We have a final report summary. Mr. Ric Teano of OCTA added that last year 95,000 people used this service. Year after year, there is about a 20% increase. There was a year where there was a tough heatwave and no one wanted to be on a bus. That was a tough year, but ridership has been growing 20-30% per year since 2014.

Ms. Martinez said she asked that question because as we move forward with this event and as we look toward others, how do we get people out of their cars to do other forms of transportation? Whether it's biking or carpool share, what makes those folks use public transportation? Is it because they are getting the discount to go to the Fair? Or do they not want to pay for the parking? What's causing that change of behavior for those 95,000 people to be willing to use the bus? She thinks using data analytics information specifically on something like this can be very helpful to us. There could be a culture shift and a change of mind and if we could capture it here and use it, we can see how to use it in other things. So beyond the best practices of going cleaner and greener, how do we change people's behavior? Mr. Teano replied that after each event, they provide raw data to the MSRC staff in the form of a final report. It provides what they thought worked and also provides a little bit of discussion on lessons learned and what they would do if it is supported in the next year. OCTA would be more than happy to share that information.

ON MOTION BY MSRC MEMBER BEN BENOIT AND SECONDED BY MSRC ALTERNATE ADAM RUSH, THE MSRC UNANIMOUSLY VOTED TO APPROVE AN AWARD TO ORANGE COUNTY TRANSPORTATION AUTHORITY FOR \$834,222 FOR SPECIAL BUS SERVICE TO THE 2017 AND 2018 ORANGE COUNTY FAIR.

AYES: BENOIT, KITOWSKI, MARTINEZ, ROYBAL SALTARELLI, RUSH, YARMONE.

NOES: NONE.

Agenda Item #10 – Receive Update on Concepts for MSRC Infrastructure Program

Ray Gorski, MSRC Technical Advisor, reported on this item. He reintroduced John Kato from the California Energy Commission. He serves on your MSRC-TAC. He is Chair for the Infrastructure Subcommittee. The Subcommittee has been active in coming up with new concepts. Item #11 will discuss the Program Announcement for which we'd like your review and approval today. But what I thought John and I would do is set the stage to give you more of an overview of what the overall of infrastructure Work Program is shaping up to be this year. We're not looking for a vote on any specific solicitation document on this item today, but we are looking for your feedback, your concurrence, and more importantly for a green light to continue our efforts. Today, we'd like to discuss the program concept for infrastructure. The goals are to just get your feedback and give you an introduction of what we're thinking and really give us further direction to continue the discussions of the partnerships. This is probably not the first, because the MSRC has been very proactive in seeking partnerships. We are currently in partnership with South Coast AQMD on programs including the Residential EV Infrastructure Programs; we've supported the SCAQMD with the EFMP/Replace Your Ride Program; and we're working with SCAG on the Go Human Campaign.

Infrastructure has been one area where the MSRC has pretty much been self-contained for the last several years. What we are trying to do now is branch out a bit because there are different colors of monies on the street. There are different project objectives being sought by other project partners. We thought we'd get together to the extent we can and make sure we're working on a method that is efficient, not stepping on each other's toes, but also trying to maximize the available monies that are out there. What we are proposing is an infrastructure partnership between three primary entities, but there are other stakeholders involved: the MSRC, South Coast AQMD, and the California Energy Commission. The other agencies we are in discussions with are the Air Resources Board and SCAG. We've also brought in UCLA's Luskin Institute. They are providing additional guidance information. We're trying to bring them in the partnership to address some key infrastructure problems. The proposed overall partnership funding level is \$25M. The actual MSRC contribution will be approximately \$8M. There are three infrastructure categories that have currently been identified: 1) hydrogen; 2) electric vehicle support equipment, which means electric vehicle charging stations; and 3) natural gas infrastructure. The natural gas is to help continue support, especially in light of the near-zero natural gas engines which are becoming commercially available. The natural gas refueling infrastructure will draw heavily on the past successful programs that the MSRC has implemented for many years. The lead agency will be the MSRC. The technology focus will be compressed and liquefied natural gas, specifically looking at how to get fleets to adopt the near-zero technology and that is directly supported by the South Coast AQMD's 2016 AQMP. There's definitely a tie-in with the goals that the SCAQMD has expressed in their Air Quality Management Plan. The funding matrix is what was in the prior solicitation, however there will be one potential addition and Cynthia Ravenstein, in her presentation that follows mine, is going to discuss that. We have had a request from a member of the MSRC to consider an additional funding category. We are really hopeful that the majority of the infrastructure dispenses renewable natural gas and that's why we are suggesting that a bonus be added for a renewable natural gas and that is reflected in Agenda Item #11.

With regards to hydrogen, the intent is to construct within each county of the South Coast AQMD, an additional hydrogen fueling station. This will support the advent of hydrogen vehicles which multiple original equipment manufacturers are starting to make commercially available. It's always difficult to introduce a new fuel, a new technology, if the supporting publicly accessible infrastructure is not available. This is going to address this. We are seeking to have full geographic participation and stations implemented within each county of the South Coast AQMD. The lead agency for the program is going to California Energy Commission, this is what they do. They are currently in a perfect position to implement these types of stations in a partnership program. They've been working on this for quite some time. The intent here is to have SCAQMD's and the MSRC's support, through funding, of the work that the California Energy Commission will be doing.

The third category is Electric Vehicle Charging Stations. The lead agency will be the MSRC and this is going to be done in close coordination with South Coast AQMD. The technology focus will have two areas: 1) work place charging; and 2) multi-unit housing. We selected those two target audiences because workplace charging is very popular and there are a lot of monies which are looking to do workplace charging. There's settlement money from NRG and there are other state-wide programs, but what we constantly hear within the South Coast region is that there is money but not enough to fill the need. The intent is to help augment by making additional monies available to ensure that people who want to use a zero-emission vehicle for their daily work commute have accessible charging to ensure their vehicle meets their daily needs. Multi-unit housing is the one that's difficult to do. The reason we are focusing on this is because not too many other entities are, and there are a lot of folks that are potential EV users that live in

condominiums or apartments and it is an area that has not been fully met. We are suggesting that the MSRC work to help to come up with the necessary plans and programs to get charging available to people that do not live in a single family house. We are going to work closely with our partners, the CEC and the South Coast AQMD, but we are also seeking guidance and input from other agencies such as SCAG and UCLA, which has been very forthcoming with information.

Now how the money is going to shape up: the plan involves the MSRC, the South Coast AQMD, the CEC and then the three fuel types hydrogen; electric and then natural gas. The MSRC will be asked to invest \$3M in hydrogen infrastructure; \$3M in electric vehicle charging infrastructure; and \$2M in natural gas. The South Coast AQMD will match that dollar- for-dollar but has asked that the money be allocated over two work program cycles because they want to make sure the pot that the money is coming from has sufficient amount of funds available. The California Energy Commission will be supporting hydrogen and EVSE. If you look at the total numbers, for hydrogen it's \$9M; total funding allocation for EVSE is \$11M; and natural gas is \$4M. There's always flexibility within the MSRC to move money around if needed. Because we know multi-family housing is not easy, the CEC has suggested that we put together a plan on how to attack that, and we are working with CEC to see if we can secure for the MSRC an additional funding allocation to help fund that effort. It would be planning and outreach to the communities and most likely we would need to bring on additional contractor resources and/or other stakeholders and the CEC would again help us to co-fund that effort.

At this point, if the MSRC is comfortable with the overall program approach, we will continue to work with the SCAQMD's finance and legal staff to develop the necessary agreements for the MSRC to partner with the California Energy Commission on implementing hydrogen refueling stations. We will work jointly with the District to fund natural gas infrastructure. We will utilize both the MSRC funds from Fund 23, and the Clean Fuels funds. With regards to the EVSE, we will work with the CEC, the SCAQMD and the MSRC staff to put together the necessary agreements to allow us to proceed on the electric vehicle charging element of the program. The next item on today's agenda is the actual RFP for the natural gas component. That one is ready to go. What we do need from the MSRC today is guidance and concurrence that this is a plan that you believe is in the best interest of the MSRC, that it serves the needs of our region, and it's a prudent use of the MSRC discretionary funds.

Barbara Baird, Chief Deputy Counsel, commented that this item is not actually being brought to the Committee in its full form for approval, although it is listed under the Action section on the agenda. There was no specific action described so we cannot take a vote on this today, but we can certainly get feedback. All the Committee members can give feedback. In terms of a green light, we can't really vote but I think what we can say unless Mr. Gorski and the other Subcommittee folks feel that the feedback is such that the Committee believes it's a bad idea to go forward, they will simply go forward and then bring back the further documents and final proposals for your later consideration.

MSRC Alternate Adam Rush stated that he thinks the hydrogen is a bold move but worth discussion. He would concur with putting together some type of work plan especially for the multi-family housing because you're going have local permit issues to deal with footprints, things of that nature. What is the thought process at this point of outreach, is it going to be through a specific stakeholder? I know there's the California Apartment Association. Is it going to be with individual apartment owners? How are you thinking about going through that process? Mr. Gorski replied we've had some teleconferences with university institutions which are looking at this problem. Specifically we are in discussion with the Luskin Center which is affiliated with UCLA. We were contacted by them because they heard through SCAG that this has been

presented at the TAC. They're doing a fair amount of research into this issue also. They are doing independent research looking at the barriers of having EVSE installed in multi-unit housing. What they are offering is to provide some of their completed research materials. We intend to continue the dialog with the educational and academic institutions because other people are out there doing research in this area. The California Energy Commission has also done research in the area, as has the Southern California Association of Governments, so we'd like to utilize, to the extent we can, the members of this Committee which through their own agencies are doing this type of research, put together that information, and then look outside to other academic institutions which are also looking at this. If necessary, the MSRC's Outreach Coordinator can provide some contractor services to do outreach, and through the process we'll be identifying additional stakeholders who have specific expertise and bring them in. This has been identified as an unmet need for EVSE and it's going to inhibit the increased proliferation of electric vehicles if we can never tap into people who happen to live in anything other than a single home.

MSRC Member Adam Rush questioned if we are looking into both hydrogen and electric for multi-family? Mr. Gorski replied we're looking for electric for multi-family, hydrogen will be a dedicated station. Mr. Rush asked what's the footprint of the hydrogen fueling station for commercial. Mr. Gorski answered it depends on how big you make it, in this case it probably will be the same footprint as a natural gas fueling station. Mr. Rush asked larger than what we have outside? Mr. Kato added that it could be smaller. As technology evolves, the footprint is actually smaller and smaller. Then, as it further evolves, you can actually create onsite hydrogen with solar, so there is an opportunity to have cutting edge stuff. Mr. Rush questioned the range of the commercially available unit? Mr. Gorski replied approximately 325 miles on a new Honda Clarity. Mr. Kato added that these additional stations will really solidify the Southern California network. MSRC Member Ben Benoit added, especially in Riverside. We have one station in Riverside that just came online after trying to come online for 16months. We have a couple in the desert operated by Sunline but they're booked and not publicly accessible. Riverside County is really behind, southwest Riverside needs more. Orange County has come a long way, they have a lot of good stations. Mr. Rush added that, for the multi-family component, he thinks it's a great idea, but the outreach will be key when you're dealing with private property. That environment has layers and layers, so proceed cautiously.

MSRC Member Jack Kitowski stated that he's strongly supportive. Each of these funding sources have their own funding cycles and reporting audit requirements. It is a challenge, and he commends the MSRC-TAC for taking that on and doing the heavy lifting to get it started. EVSE and multi-unit dwellings is something we have looked at in our agency. It is hard to tackle. From a state-wide policy, it needs boots on the ground. He thinks that's a good place to invest resources. Some of our work we've done, can help and contribute and we're happy to put some of that time and effort toward making that work. The place that is really key is, we're starting to see all of the first batch of EVs coming off their leases, a lot of these are going to the used market, people are looking, and there are good bargains. South Coast has scrap programs that are offering huge discounts if you're low income and from a disadvantaged community. All of these work, except if they're sitting in an apartment, they can't make it work. Mr. Kitowski sees this as a potential model that we could really build off of and work with not just new, but the scrap programs, the EFMP program.

Mr. Benoit disclosed that he works for the California Apartment Association. When there's talk about multi-family, I'm well versed in that, this is great. We do hear about it a lot in my industry, trying to break that barrier and seeing different ways to do that. Not only just getting the infrastructure but how do you charge forward, how do the customers use it. It's very difficult so I'm interested to see how we plan on working this. Mr. Kato added it's not just simply funds, the

\$25M is not the only set of funds, you're actually catalyzing other investments. These are really great project seeds to support other parallel programs.

Mr. Benoit asked if anyone is aware of a very good resource? If I'm a property owner and I want to register my address, I know Tesla does this really well. I can go on Tesla's website and register my address, if there's ever money available, I'm willing to give up 10 parking spots. For all the other EVs, hydrogen, everything that's out there, there's no single clearinghouse that I've found and I've thought about bringing this forward to SCAG. We need to create a database of every property owner that's even interested remotely in this, so when there are monies available we're not trying to chase those people down. We'll have a working list of people who are already interested. What I find in my industry, going back to being on City Council, I will occasionally run into an owner of an actual property who's interested, and by the time I find the money that's available, he's sold the place, it's hard to tie those two together. If we could have a database where that one business owner can go and register, or that land owner or maybe it's a management company, there are multiple layers to this. Advise that our owners are interested in this, here's a list of addresses we're interested in, so that when we're looking to site a hydrogen station, we already know here's 50 targets that have parking lots that are available to do that. Does anybody have that out there? Mr. Rush stated that's a great point because when you're dealing in the development world and you're trying to site something, the entitlement of the construction stage, there's a very small window where a decision has to be made. Unfortunately, government doesn't move at that speed sometimes. Mr. Benoit added if no one can find one, I'm thinking about taking that back to SCAG and saying to SCAG there's a reason we should be doing that. I'm trying to see which is the best layer of government to put that in but I think SCAG has the over arching coverage, where all of our companies come together come up with that list. So that when we have programs like this come forth we can say where all the places in Riverside are that would like EV charging in a parking complex. Mr. Rush commented that they tried to that in their City and by the time things got around to working out someone else came in and said I'll pay this much for the property and they buy it and it's gone.

Ms. Martinez commented that as we go into clean transportation and technologies but also smart infrastructure, as we've looked at cutting edge things and using sensors to track and monitor to get this data, so that we're all talking so that we can leverage our resources, we know where we're getting our best bang for our buck. Is that happening and is that going to happen with new investment in infrastructure? Making sure that we have smart technologies, smart infrastructure so that we can gather all that information? Everyone is saying yes and that's fantastic. Mr. Kato replied we're going to definitely provide the protocols and schematics so that you're getting the latest and greatest, that's really able to communicate, be able to relay data on the frequency of the use. There's more need for more use there, durability, reliability, accessibility so we will all have that as a constant data stream. Ms. Martinez asked have you been able to map? I think I was working with SCAG staff on GIS mapping and I think they located where all the CNG was located. In Orange County, the majority was in Santa Ana. It was just interesting to see that. If we were to be able to be engaged and use the community, so that they can actually identify that, using the mapping and telling those stories. How do we go out and get to folks? Whether it was folks that wanted to do the multi-unit, sometimes they don't know where to go or how to go but if you start connecting the story telling and the data that's accessible and they know where the locations are, the word starts to spread. I think story telling is extremely important as we move forward.

Ms. Martinez added that she recently went on a tour in her city of food trucks. We have over 300, and she realized that all of them were using generators for like 8 to 10 hours. We try to reduce greenhouse gases but they're emitting carbon dioxide for 8-10 hours. It was great for me to go out there because we have an ordinance that's coming before the City Council to monitor, with

regards to 500 feet from schools, and they're wanting to reduce the emissions. I asked the truck operators do you turn it off and they said no because we have cold food, we have milk. How many more of these trucks do we have across the region? I wanted us to take some time and look at that. Mr. Gorski added that's actually a really fascinating point, I don't even know if they're rated as a source category within the district because they are running on unpermitted generators under the portable equipment rule.

Mr. Rush stated, as part of the outreach, I would mention possibly getting Metrolink integrated as well, there's a lot of out parcels that might be available for a station. We need a contact. Mr. Kato added LADWP is always a great partner. They're the essential part of the equation. Mr. Gorski added what we need is to have an EVSE on the street parking location where food trucks are permitted. They could just plug into a Level 2 charger and it would meet their electric need. That could be something the MSRC could look at under a potential local match program in the near future. We're in the process of putting one together for the MSRC's consideration. It's an unmet need and I'm not aware of anyone doing that.

THIS WAS AN INFORMATIONAL ITEM AND NO ACTION WAS TAKEN.

Agenda Item #11 – Consider Approval of Program Announcement for New and Expanded Natural Gas Refueling Stations

Cynthia Ravenstein, MSRC Contracts Administrator, reported on this item. This is focusing on one element of the concept you were just presented, that is ready for consideration today, the Natural Gas Infrastructure Program Announcement. This is very similar to what the MSRC has offered the last couple of work programs. It's to offer funding opportunities to most, if not all, entities that are interested in pursuing natural gas infrastructure projects. This includes public and private companies, fleet owners, infrastructure providers, fuel providers and school districts. This would have a new twist in that it would provide additional funding incentives for fueling stations that utilize natural gas that is produced from renewable sources. It would also offer incentives to fleets to upgrade their existing vehicle maintenance facilities. There's still some need that goes on for people to have methane sensors, they could use some assistance. The key provisions would be if the MSRC approves this, this could go to the Governing Board for release on June 2, and applications are due June 29, 2018. Last time around there was a similar length of the solicitation and people didn't notice it was actually over a year, so they started to get panicky early; but this is a long period. The idea is to have people submit their proposal when they really get it fleshed out, rather than just trying to hurry and get something in before the deadline without having the details worked out. This would be \$4M dollars; the idea is to have ultimately the MSRC funding \$2M and the SCAQMD to fund an additional \$2M but the SCAQMD Board has not yet approved that, so if that does not happen, the MSRC would be funding the full \$4M. To allow this to proceed, the MSRC would be essentially allocating the full \$4M and if the SCAQMD does come in with the additional \$2M, then MSRC could take that money back. There's a \$500,000 per county geographic minimum and a maximum award of 50% of the project costs and not to exceed some set dollar amounts that are based on the type of application, whether public or private, the level of accessibility to the station, and the number of fuels. Essentially, if they are offering both compressed natural gas and liquefied natural gas, they could get more. This new provision that was not in there last year would be for people to be able to get an additional \$100,000 incentive if they're going to use natural gas from renewable sources, sometimes known as biogas. They would have to use greater than 50% renewable natural gas for five years following the commencement of their operations. A specific clarification that your MSRC-TAC made was that, if someone already has an existing station that already uses greater than 50% biogas, if they

expand that station, they wouldn't get the bonus. They would be required to provide some documentation of their commitment to purchase renewable natural gas.

Something that was not reviewed by the MSRC-TAC, we've had some comments that there's a shortage of technicians that are trained to service gaseous fueled vehicles, particularly in some subregions of the District. The MSRC Chair asked staff to bring forward the topic to see if the Committee wanted to consider making a small modification to the solicitation, if adding technician training as an eligible project type is an option. If the MSRC wished to consider it, staff would recommend a maximum \$15,000 be provided for the technician training but it would not necessarily have to be tied in with the installation of a station or the expansion of a station. Just as the solicitation provides the funding for the retrofit of maintenance facilities, that has not been tied in necessarily with the station.

MSRC Alternate Adam Rush asked if this could be separate vendors who can apply for that funding. Ms. Ravenstein replied yes, someone can apply for that funding to get the training. Mr. Rush asked do we know how much the training cost is in total? MSRC Technical Advisor Ray Gorski replied that it's usually really not that expensive but that would be for example, if there would be multiple fleet mechanics. It could be started lower, it is up to the pleasure of body of MSRC as to what the threshold is. This just recently came up and that's why it's not reflected in the material that has already been printed. MSRC Member Jack Kitowski asked if there are thresholds on what that training would be? Sunline has their Center of Excellence and that's an accredited training program that we could point to. You would want to make sure there is some sort of minimum threshold. Mr. Gorski replied that Sunline was looked at as a potential training source but because they're a transit property; they are not a commercial training facility. We have had working relationships in the past with entities such as Rio Hondo College and College of the Desert. I don't believe College of the Desert is still engaged in doing natural gas technician training but I do believe Rio Hondo College is. In the past the South Coast AQMD has also had programs that help offset the cost of doing some natural gas vehicle infrastructure technician training. We can stipulate that it is an accredited educational institution. At one time Riverside Community College and San Jacinto Community College did CNG technician training.

MSRC Member Ben Benoit questioned where the \$15,000 amount come from. Mr. Gorski replied that was a conversation an MSRC Member had with an individual who had contacted him, to the best of my knowledge, that was the dollar amount put on the table as the need but again, that is purely at the pleasure of this Committee. Mr. Benoit asked if that will be 100% of what they need to get through that program. Mr. Gorski replied I don't know, I was not privy to that specific conversation. This did come up very recently as something to put out for your consideration. Ms. Ravenstein asked what the amount was in the past, I know the MSRC used to offer that funding years ago, do you recall how much it was? Mr. Gorski replied I am unsure. MSRC Alternate Adam Rush added if it's an institution, I would think that's probably somewhere around appropriate. If it's a college they have to create the program, establish the curriculum, hire an instructor or bring the instructor in, your costs are going to start going up pretty quickly. Which maybe an incentive to reinvigorate a program or create a new program. Mr. Gorski replied it is of course based on actuals. Mr. Benoit asked if this is to create a course? Mr. Gorski replied this is to find existing training for people to go through. Mr. Rush commented if the institution wants to create the course, then they could apply for the funding for the students to come. Mr. Benoit asked how this item would be added. Is \$15,000 per applicant added to the whole \$4M or the first \$100,000? Mr. Gorski added that right now there's no specific limits that have been suggested yet. We can carve out a section of the total funding that's available. Out of the \$4M, there's a maximum \$15,000 per entity to fund technicians at a credited education institution and that this has an overall program cap not to exceed \$150,000. Mr. Benoit questioned if this is staff's recommendation? MSRC Member Kitowski stated that you tossed out something that sounded

good on the face of it, but I would guess what you heard around here is folks thinking this is a good idea and if it turns out that gets gobbled up quickly. I think we should consider it. Mr. Kitowski added I have heard the needs exist out there for getting the technicians trained. Mr. Kato added we will definitely explore that, separate from this. Mr. Ric Teano added that general qualified transit bus technicians are low too. There's a need all around.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC ALTERNATE ADAM RUSH, THE MSRC UNANIMOUSLY VOTED TO APPROVE THERELEASE OF A PROGRAM ANNOUNCEMENT UNDER THE FYS 2016-18 WORK PROGRAM FOR NEW AND EXPANDED NATURAL GAS REFUELING STATIONS WITH A TARGETED FUNDING LEVEL OF \$4.0 MILLION, AND TO ADD TO THE PROGRAM ANNOUNCEMENT FUNDING FOR TRAINING TECHNICIANS IN THE MAINTENANCE OF NATURAL GAS VEHICLES AND EQUIPMENT, AT ANACCREDITED EDUCATIONAL INSTITUTION, WITH A MAXIMUM PER-ENTITY AWARD OF \$15,000 AND AN OVERALL CAP OF \$150,000, FROM THE \$4.0 MILLION.

AYES: BENOIT, KITOWSKI, MARTINEZ, ROYBAL SALTARELLI, RUSH, YARMONE.

NOES: NONE.

OTHER BUSINESS

Agenda Item #12

No other business was introduced.

PUBLIC COMMENT PERIOD

- Public comments were allowed during the discussion of each agenda item. No comments were made on non-agenda items.

ADJOURNMENT

THERE BEING NO FURTHER BUSINESS, THE MSRC MEETING ADJOURNED AT 3:06 P.M.

NEXT MEETING

Thursday, June 15, 2017, at 2 p.m., Room CC-8.

[Prepared by Penny Shaw Cedillo]



MSRC Agenda Item No. 3

DATE: August 17, 2017

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 June 1 to July 26, 2017.

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 with the prospective contractor for signature.

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 with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or 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 with the prospective contractor for signature.

On June 2, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. The SCAQMD Governing Board also approved the release of an RFP for the Alternative Fuel Infrastructure Program and an RFP for MSRC Technical Advisor Services. The Major Event Center Program contract is under development.

On July 7, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is under development.

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 with the prospective contractor for signature or 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. Due to lack of responsiveness, negotiations were terminated with LBA Realty, and the \$100,000 awarded to them will revert to the AB 2766 Discretionary Fund.

On November 6, 2015, the SCAQMD Governing Board approved 37 awards under the Local Government Match Program. These contracts are under development, with the prospective contractor for signature or 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 under development or 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 with the SCAQMD Board Chair for signature or 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, undergoing internal review, with the prospective contractor for signature, or executed.

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.

2012-14 Work Program

Except as specifically discussed below, all contracts from this Work Program are executed.

Work Program Status

Contract Status Reports for work program years with open (including “Open/Complete”) and/or pending contracts are attached. MSRC or MSRC-TAC members may request spreadsheets covering any other work program year.

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 2 are in “Open/Complete” status.

FY 2006-07 Invoices Paid

No invoices were paid during this period.

FY 2007-08 Work Program Contracts

4 contracts from this work program year are open; and 5 are in “Open/Complete” status.

FY 2007-08 Invoices Paid

No invoices were paid during this period.

FY 2008-09 Work Program Contracts

2 contracts from this work program year are open; and 9 are in “Open/Complete” status.

FY 2008-09 Invoices Paid

No invoices were paid during this period.

FY 2010-11 Work Program Contracts

10 contracts from this work program year are open; and 34 are in “Open/Complete” status. Two contracts moved into “Open/Complete” status during this period: City of South Pasadena, Contract #ML1140 – Purchase One Heavy-Duty Natural Gas Vehicle, and City of Santa Ana, Contract #ML1141 - Purchase 7 Heavy-Duty Natural Gas Vehicles & Retrofit 6 Heavy-Duty Vehicles with DECS. One contract was moved into the “Closed/Incomplete” category during this period with funds having been paid: City of Long Beach, Contract #MS11085 – Retrofit 7 Off-Road Vehicles with DECS.

FY 2010-11 Invoices Paid

No invoices were paid during this period.

FY 2011-12 Work Program Contracts

19 contracts from this work program year are open, and 29 are in “Open/Complete” status. One contract moved into “Open/Complete” status during this period: Southern California Gas Co., Contract #MS12024 – Construct Natural Fueling Station.

FY 2011-12 Invoices Paid

Two invoices totaling \$73,307.00 were paid during this period.

FYs 2012-14 Work Program Contracts

44 contracts from this work program year are open, and 18 are in “Open/Complete” status. One contract moved into “Closed/Incomplete” status during this period with no funds having been paid: City of Yucaipa, ML14050 – Installation of Bicycle Lanes. Two contracts moved into the “Closed” category during this period: City of Torrance, Contract #ML14054 – Upgrade Maintenance Facility and Orange County Transportation Authority, Contract #MS14058 – Implement Various Traffic Signal Synchronization Projects.

FYs 2012-14 Invoices Paid

6 invoices totaling \$1,035,194.32 were paid during this period.

FYs 2014-16 Work Program Contracts

88 contracts from this work program year are open, and 9 are in “Open/Complete” status. Two contracts moved into “Closed” status during this period: Orange County Transportation Authority, Contract MS16089 – Implement Special Bus Service to Angel Stadium and Orange County Transportation Authority, Contract MS16095 – Implement Special Bus Service to Orange County Fair

FYs 2014-16 Invoices Paid

6 invoices totaling \$450,393.00 were paid during this period.

FYs 2016-18 Work Program Contracts

Two contracts from this work program year are open.

FYs 2016-18 Invoices Paid

No invoices were paid during this period.

Administrative Scope Changes

6 administrative scope changes were initiated during the period of June 1 to July 26, 2017:

- City of Azusa, Contract #ML16032 (Implement “Complete Streets” Project) – 12-month no-cost extension
- City of Santa Monica, Contract #MS12060 (Implement Bike Share Program) – 12-month no-cost extension
- County of Los Angeles, Contract #ML14024 (Upgrade Maintenance Facility – Baldwin Park) – 12-month no-cost extension
- County of Los Angeles, Contract #ML14023 (Upgrade Maintenance Facility – Westchester) – 12-month no-cost extension

- City of San Dimas, Contract #ML16042 (Install EV Charging Stations) – 12-month no-cost extension
- City of Monterey Park, Contract #ML16013 (Purchase 3 Heavy-Duty Natural Gas Vehicles) – 12-month no-cost extension

Attachments

- FY 2004-05 through FYs 2016-18 (except FY 2005-06 and FY 2009-10) Contract Status Reports



AB2766 Discretionary Fund Program Invoices

June 1, 2017 to July 26, 2017

Contract Admin.	MSRC Chair	MSRC Liaison	Finance	Contract #	Contractor	Invoice #	Amount
<i>2011-2012 Work Program</i>							
7/11/2017	7/12/2017	7/12/2017	7/14/2017	MS12024	Southern California Gas Company	2200-0309	\$15,000.00
6/8/2017	6/15/2017	6/16/2017	6/16/2017	MS12034	Ware Disposal Company, Inc.	6063-Final	\$58,307.00
Total: \$73,307.00							
<i>2012-2014 Work Program</i>							
7/20/2017	7/21/2017	7/21/2017	7/21/2017	MS14001	Los Angeles County MTA	800067274	\$474,050.52
7/18/2017	7/21/2017	7/21/2017	7/21/2017	ML14071	City of Manhattan Beach	FINAL	\$22,485.00
7/11/2017	7/12/2017	7/12/2017	7/14/2017	ML14054	City of Torrance	018-0015009	\$319,908.80
6/14/2017	6/15/2017	6/16/2017	6/16/2017	MS14080	CR&R Incorporated	1-Final	\$200,000.00
6/14/2017	6/15/2017	6/16/2017	6/16/2017	MS14081	CR&R Incorporated	Final	\$10,000.00
6/14/2017	6/15/2017	6/16/2017	6/16/2017	MS14053	Upland Unified School District	Final	\$8,750.00
Total: \$1,035,194.32							
<i>2014-2016 Work Program</i>							
7/12/2017	7/12/2017	7/12/2017	7/14/2017	ML16007	City of Culver City Transportation Department	ML16007-01	\$210,000.00
7/5/2017	7/12/2017	7/12/2017	7/14/2017	MS16004	Mineral LLC	102867	\$300.00
6/28/2017	7/12/2017	7/12/2017	7/14/2017	ML16073	City of Long Beach Public Works	001	\$50,000.00
6/14/2017	6/15/2017	6/16/2017	6/16/2017	MS16116	Riverside Transit Agency	1417Gil3162	\$9,793.00
6/14/2017	6/15/2017	6/16/2017	6/16/2017	MS16004	Mineral LLC	102105	\$300.00
6/14/2017	6/15/2017	6/16/2017	6/16/2017	ML16059	City of Burbank	6-16	\$180,000.00
Total: \$450,393.00							

Total This Period: \$1,558,894.32

FYs 2004-05 Through 2014-16 AB2766 Contract Status Report

8/10/2017

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2004-2005 Contracts									
Open Contracts									
ML05014	Los Angeles County Department of P	5/21/2007	11/20/2008	3/20/2018	\$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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2006-2007 Contracts

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
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
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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 Sanit	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: 59									
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									
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
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: 2									

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2007-2008 Contracts									
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
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
Total: 4									
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
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
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
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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: 56

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
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: 2

Open/Complete Contracts

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
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
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

Total: 4

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2008-2009 Contracts									
Open Contracts									
ML09033	City of Beverly Hills	3/4/2011	5/3/2017	5/3/2018	\$550,000.00	\$100,000.00	10 Nat. Gas Heavy-Duty Vehicles & CNG St	\$450,000.00	No
ML09036	City of Long Beach Fleet Services B	5/7/2010	5/6/2017	5/6/2020	\$875,000.00	\$525,000.00	Purchase 35 LNG Refuse Trucks	\$350,000.00	No
Total: 2									
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
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
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
ML09037	City of Redondo Beach	6/18/2010	6/17/2016		\$50,000.00	\$50,000.00	Purchase Two CNG Sweepers	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML09038	City of Chino	9/27/2010	5/26/2017		\$250,000.00	\$250,000.00	Upgrade Existing CNG Station	\$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: 22

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
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
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
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
ML09035	City of Fullerton	6/17/2010	6/16/2017	12/16/2018	\$450,000.00	\$450,000.00	2 Heavy-Duty CNG Vehicles & Install CNG	\$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
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: 9

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2010-2011 Contracts

Open Contracts

ML11020	City of Indio	2/1/2013	3/31/2019	9/30/2019	\$30,000.00	\$0.00	Retrofit one H.D. Vehicles w/DECS, repower	\$30,000.00	No
ML11024	County of Los Angeles, Dept of Publi	12/5/2014	6/4/2022		\$90,000.00	\$0.00	Purchase 3 Nat. Gas H.D. Vehicles	\$90,000.00	No
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	Modify Maint. Facility, Expand CNG station,	\$102,500.00	No
ML11036	City of Riverside	1/27/2012	1/26/2019	3/26/2021	\$670,000.00	\$0.00	Install New CNG Station, Purchase 9 H.D. N	\$670,000.00	No
ML11038	City of Santa Monica	5/18/2012	7/17/2018		\$400,000.00	\$0.00	Maintenance Facility Modifications	\$400,000.00	No
ML11045	City of Newport Beach	2/3/2012	8/2/2018	8/2/2020	\$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
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: 10

Declined/Cancelled Contracts

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: 21

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
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
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
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
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
Total: 19									
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									
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
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
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
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
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
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
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
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
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
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
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
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: 34

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2011-2012 Contracts

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	1/17/2022	\$300,000.00	\$0.00	Expansion of Existing CNG Station	\$300,000.00	No
ML12041	City of Anaheim Public Utilities Depa	4/4/2014	11/3/2015	11/3/2017	\$68,977.00	\$0.00	EV Charging Infrastructure	\$68,977.00	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
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
ML12051	City of Bellflower	5/7/2017	2/6/2016	2/6/2018	\$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	\$10,375.80	Purchase One Nat. Gas H.D. Vehicle/Street	\$47,080.20	No
ML12090	City of Palm Springs	10/9/2015	10/8/2021		\$21,163.00	\$0.00	EV Charging Infrastructure	\$21,163.00	No
MS12008	Bonita Unified School District	7/12/2013	12/11/2019	4/11/2021	\$175,000.00	\$0.00	Construct New Limited-Access CNG Station	\$175,000.00	No
MS12011	Southern California Gas Company	6/14/2013	6/13/2019	5/28/2021	\$150,000.00	\$135,000.00	Construct New Public-Access CNG Station -	\$15,000.00	No
MS12033	Mike Diamond/Phace Management	12/22/2012	12/21/2018	6/21/2021	\$500,000.00	\$134,010.00	Purchase 20 Medium-Heavy Duty Vehicles	\$365,990.00	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
MS12060	City of Santa Monica	4/4/2014	8/3/2017		\$500,000.00	\$412,584.46	Implement Westside Bikeshare Program	\$87,415.54	No
MS12075	CR&R Incorporated	7/27/2013	1/26/2021	1/26/2022	\$100,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$100,000.00	No
MS12077	City of Coachella	6/14/2013	6/13/2020		\$225,000.00	\$0.00	Construct New CNG Station	\$225,000.00	No
MS12083	Brea Olinda Unified School District	7/30/2015	2/29/2024		\$59,454.00	\$0.00	Install New CNG Infrastructure	\$59,454.00	No
MS12084	Airport Mobil Inc.	12/6/2013	5/5/2020		\$150,000.00	\$0.00	Install New CNG Infrastructure	\$150,000.00	No
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

Total: 19

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 Transit				\$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
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-Access 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: 11

Closed Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
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
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
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
MS12Hom	Mansfield Gas Equipment Systems				\$296,000.00	\$0.00	Home Refueling Apparatus Incentive Progra	\$296,000.00	No

Total: 31

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
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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
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Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
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
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
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
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
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
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
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
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: 29

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2012-2014 Contracts									
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
ML14013	City of Los Angeles, Bureau of Sanit	10/7/2016	2/6/2025		\$400,000.00	\$0.00	Purchase 14 H.D. Nat. Gas Vehicles	\$400,000.00	No
ML14016	City of Anaheim	4/3/2015	9/2/2021		\$380,000.00	\$0.00	Purchase 2 H.D. Vehicles, Expansion of Exi	\$380,000.00	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	6/4/2022	\$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		\$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		\$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		\$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		\$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
ML14028	City of Fullerton	9/5/2014	1/4/2022		\$126,950.00	\$0.00	Expansion of Existing CNG Infrastructure	\$126,950.00	No
ML14030	County of Los Angeles Internal Servi	1/9/2015	3/8/2018	6/8/2019	\$425,000.00	\$0.00	Bicycle Racks, Outreach & Education	\$425,000.00	No
ML14033	City of Irvine	7/11/2014	2/10/2021		\$60,000.00	\$0.00	Purchase 2 H.D. CNG Vehicles	\$60,000.00	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
ML14051	City of Brea	9/5/2014	1/4/2017	7/4/2018	\$450,000.00	\$0.00	Installation of Bicycle Trail	\$450,000.00	No
ML14055	City of Highland	10/10/2014	3/9/2018		\$500,000.00	\$0.00	Bicycle Lanes and Outreach	\$500,000.00	No
ML14056	City of Redlands	9/5/2014	5/4/2016	5/4/2018	\$125,000.00	\$0.00	Bicycle Lanes	\$125,000.00	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 Transit	12/4/2015	1/3/2023		\$60,000.00	\$0.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$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
ML14094	City of Yucaipa	6/9/2017	6/8/2018		\$84,795.00	\$0.00	Installation of Bicycle Lanes	\$84,795.00	No
MS14001	Los Angeles County MTA	3/6/2015	4/30/2015		\$1,216,637.00	\$474,050.52	Clean Fuel Transit Service to Dodger Stadiu	\$742,586.48	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
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
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		\$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		\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14075	Fullerton Joint Union High School Di	7/22/2016	11/21/2023		\$300,000.00	\$0.00	Expansion of Existing CNG Infrastructure/Ma	\$300,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14076	Rialto Unified School District	6/17/2015	2/16/2022		\$225,000.00	\$0.00	New Public Access CNG Station	\$225,000.00	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
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
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
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
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
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: 43

Pending Execution Contracts

ML14060	County of Los Angeles Internal Servi				\$104,400.00	\$0.00	Electric Vehicle Charging Infrastructure	\$104,400.00	No
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Total: 1

Declined/Cancelled Contracts

ML14063	City of Hawthorne				\$32,000.00	\$0.00	Expansion of Existng CNG Infrastructure	\$32,000.00	No
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
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: 8

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
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
ML14065	City of Orange	9/5/2014	8/4/2015		\$10,000.00	\$10,000.00	Electric Vehicle Charging Infrastructure	\$0.00	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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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

Total: 21

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
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Total: 1

Open/Complete Contracts

ML14014	City of Torrance	9/5/2014	12/4/2019		\$56,000.00	\$56,000.00	EV Charging Infrastructure	\$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
ML14029	City of Irvine	7/11/2014	6/10/2017		\$90,500.00	\$71,056.78	Bicycle Trail Improvements	\$19,443.22	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 Infrs., Bicycle L	\$9,639.37	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
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
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: 19

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2014-2016 Contracts									
Open Contracts									
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		\$310,000.00	\$0.00	Purchase 4 Medium-Duty and 9 Heavy-Duty	\$310,000.00	No
ML16009	City of Fountain Valley	10/6/2015	2/5/2018		\$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
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	No
ML16013	City of Monterey Park	12/4/2015	7/3/2022		\$90,000.00	\$0.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$90,000.00	No
ML16015	City of Yorba Linda	3/4/2016	11/3/2017		\$85,000.00	\$0.00	Install Bicycle Lanes	\$85,000.00	No
ML16016	City of Los Angeles, Department of	2/5/2016	12/4/2022		\$630,000.00	\$0.00	Purchase 21 Heavy-Duty Nat. Gas Vehicles	\$630,000.00	No
ML16017	City of Long Beach	2/5/2016	8/4/2023		\$1,445,400.00	\$769,642.73	Purchase 48 Medium-Duty, 16 H.D. Nat. Ga	\$675,757.27	No
ML16018	City of Hermosa Beach	10/7/2016	1/6/2023		\$29,520.00	\$0.00	Purchase 2 M.D. Nat. Gas Vehicles, Bicycle	\$29,520.00	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		\$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
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	No
ML16025	City of South Pasadena	6/22/2016	4/21/2023		\$180,535.00	\$0.00	Purchase 2 H.D. Nat. Gas Vehicles, Expand	\$180,535.00	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	\$0.00	Enhance Existing Class 1 Bikeway	\$25,000.00	No
ML16032	City of Azusa	9/9/2016	4/8/2019		\$474,925.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$474,925.00	No
ML16033	Coachella Valley Association of Gov	4/27/2016	4/26/2018		\$250,000.00	\$0.00	Street Sweeping Operations in Coachella Va	\$250,000.00	No
ML16034	City of Riverside	3/11/2016	10/10/2018		\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16035	City of Wildomar	4/1/2016	11/1/2017		\$500,000.00	\$0.00	Install Bicycle Lanes	\$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		\$20,000.00	\$0.00	Install EV Charging Infrastructure	\$20,000.00	No
ML16042	City of San Dimas	4/1/2016	12/31/2019		\$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		\$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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16049	City of Buena Park	4/1/2016	11/30/2018		\$429,262.00	\$0.00	Installation of a Class 1 Bikeway	\$429,262.00	No
ML16050	City of Westminster	5/6/2016	7/5/2020		\$115,000.00	\$0.00	Installation of EV Charging Infrastructure	\$115,000.00	No
ML16051	City of South Pasadena	2/12/2016	1/11/2017	12/11/2017	\$320,000.00	\$0.00	Implement "Open Streets" Event with Variou	\$320,000.00	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		\$498,750.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$498,750.00	No
ML16054	City of Yucaipa	3/26/2016	7/26/2018		\$120,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$120,000.00	No
ML16056	City of Ontario	3/23/2016	9/22/2020		\$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
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
ML16060	City of Cudahy	2/5/2016	10/4/2017		\$73,910.00	\$0.00	Implement an "Open Streets" Event	\$73,910.00	No
ML16062	Colton Electric Utility	6/3/2016	7/2/2020		\$25,000.00	\$0.00	Installation of EV Charging Infrastructure	\$25,000.00	No
ML16064	County of Orange, OC Parks	2/21/2017	10/20/2018		\$204,073.00	\$0.00	Implement "Open Streets" Events with Vario	\$204,073.00	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
ML16068	Riverside County Dept of Public Heal	12/2/2016	8/1/2018		\$171,648.00	\$0.00	Implement an "Open Streets" Events with V	\$171,648.00	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	\$0.00	Purchase 3 H.D. Nat. Gas Vehicles	\$90,000.00	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
ML16072	City of Palm Desert	3/4/2016	1/3/2020		\$56,000.00	\$0.00	Installation of EV Charging Infrastructure	\$56,000.00	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
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
ML16078	City of Moreno Valley	5/6/2016	11/5/2017		\$32,800.00	\$5,569.49	Install Bicycle Infrastructure & Implement Bi	\$27,230.51	No
ML16083	City of El Monte	4/1/2016	4/30/2021		\$57,210.00	\$0.00	Install EV Charging Infrastructure	\$57,210.00	No
MS16001	Los Angeles County MTA	4/1/2016	4/30/2017		\$1,350,000.00	\$0.00	Clean Fuel Transit Service to Dodger Stadiu	\$1,350,000.00	No
MS16004	Mineral LLC	9/4/2015	7/3/2017	1/3/2018	\$27,690.00	\$7,800.00	Design, Develop, Host and Maintain MSRC	\$19,890.00	No
MS16030	The Better World Group	12/19/2015	12/31/2017		\$130,716.00	\$90,585.19	Programmic Outreach Services to the MSR	\$40,130.81	No
MS16082	Riverside County Transportation Co	9/3/2016	8/2/2018	6/2/2018	\$590,759.00	\$0.00	Extended Freeway Service Patrols	\$590,759.00	No
MS16084	Transit Systems Unlimited, Inc.	5/6/2016	2/28/2018		\$565,600.00	\$215,130.00	Implement Special Shuttle Service from Uni	\$350,470.00	No
MS16086	San Bernardino County Transportatio	9/3/2016	10/2/2021		\$800,625.00	\$61,602.57	Freeway Service Patrols	\$739,022.43	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
MS16088	Transit Systems Unlimited, Inc.	5/12/2017	1/11/2023		\$17,000.00	\$0.00	Expansion of Existing CNG Station	\$17,000.00	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	\$84,744.00	Implement a Series of "Open Streets" Event	\$165,256.00	No
MS16093	Orange County Transportation Autho	9/3/2016	3/2/2018		\$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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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	\$0.00	Provide Special Bus Service to the Los Ange	\$50,000.00	No
MS16100	Southern California Regional Rail Au	5/5/2017	9/30/2017		\$80,455.00	\$0.00	Provide Metrolink Service to Autoclub Speed	\$80,455.00	No
MS16102	Nasa Services, Inc.	2/21/2017	4/20/2023		\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
MS16103	Arrow Services, Inc.	2/3/2017	4/2/2023		\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
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
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
MS16114	City of Norwalk	3/3/2017	6/2/2024		\$45,000.00	\$0.00	Repower Up to 3 Transit Buses	\$45,000.00	No
MS16115	City of Santa Monica	4/14/2017	7/13/2025		\$870,000.00	\$0.00	Repower Up to 58 Transit Buses	\$870,000.00	No
MS16116	Riverside Transit Agency	3/3/2017	1/2/2023		\$10,000.00	\$9,793.00	Repower One Transit Bus	\$207.00	No
MS16117	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16118	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	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	Purchase 39 Transit Buses and Repower 24	\$945,000.00	No

Total: 87

Pending Execution Contracts

ML16014	City of Dana Point				\$153,818.00	\$0.00	Extend an Existing Class 1 Bikeway	\$153,818.00	No
ML16067	City of South El Monte				\$73,329.00	\$0.00	Implement an "Open Streets" Event	\$73,329.00	No
ML16077	City of Rialto				\$463,216.00	\$0.00	Pedestrian Access Improvements, Bicycle L	\$463,216.00	No
MS16029	Orange County Transportation Autho				\$851,883.00	\$0.00	Transportation Control Measure Partnership	\$851,883.00	No
MS16104	City of Perris				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16106	City of Lawndale				\$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
MS16110	City of Riverside				\$300,000.00	\$0.00	Expansion of Existing CNG Station and Mai	\$300,000.00	No
MS16111	VNG 5703 Gage Avenue, LLC				\$150,000.00	\$0.00	Construct Public Access CNG Station in Pla	\$150,000.00	No
MS16121	Long Beach Transit				\$600,000.00	\$0.00	Purchase 40 New Transit Buses with Near-Z	\$600,000.00	No

Total: 12

Declined/Cancelled Contracts

ML16065	City of Temple City				\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	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

Total: 4

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Closed Contracts									
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
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
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
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
Total: 7									
Open/Complete Contracts									
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
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
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
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
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
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
Total: 9									

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2016-2018 Contracts

Open Contracts

MS18001	Los Angeles County MTA	6/29/2017	4/30/2018		\$807,945.00	\$0.00	Provide Clean Fuel Transit Service to Dodge	\$807,945.00	No
MS18002	Southern California Association of G	6/9/2017	11/30/2018		\$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	\$5,064.00	Design, Host and Maintain MSRC Website	\$51,889.00	No

Total: 3

Pending Execution Contracts

MS18004	Orange County Transportation Autho				\$503,272.00	\$0.00	Provide Special Rail Service to Angel Stadiu	\$503,272.00	No
MS18005	Orange County Transportation Autho				\$834,222.00	\$0.00	Clean Fuel Bus Service to OC Fair	\$834,222.00	No

Total: 2

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 27

REPORT: California Air Resources Board Monthly Meeting

SYNOPSIS: The California Air Resources Board met on June 29 and July 27, 2017, in Sacramento, CA. The following is a summary of those meetings.

RECOMMENDED ACTION:
Receive and File.

Judith Mitchell, Member
SCAQMD Governing Board

dg

The California Air Resources Board's (CARB or Board) June meeting was held on June 29, 2017 in Sacramento at the Sacramento County Administration Center. Key items presented are summarized below.

DISCUSSION ITEM

17-7-1: Public Hearing to Consider Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

The Board approved amendments to the Mandatory Reporting Regulation (MRR) for Greenhouse Gas Emissions. The MRR is the first of three interrelated items to go before the Board needed to support California's climate change programs. In July, the Board will consider amendments to the Cap-and-Trade Regulation and a compliance plan for the U.S. EPA Clean Power Plan (CPP). The MRR requires California's largest greenhouse gas (GHG) emitters to report, and have verified by a third party, their annual GHG emissions. The amendments to the MRR clarified and improved quantification of GHGs, align reporting requirements with the Cap-and-Trade Regulation and the CPP reporting requirements. The amendments also updated reporting requirements for petroleum and natural gas systems, fuel suppliers, and electric power entities. Finally, the amendments modified the deadline for completing verification from September 1 to August 10 to support Cap-and-Trade implementation by allowing more time for staff to work with reporters and ensure data accuracy prior to allocating allowances and assigning compliance obligations.

The California Air Resources Board's (CARB or Board) July meeting was held on July 27, 2017 in Sacramento at the California Environmental Protection Agency Headquarters Building. Key items presented are summarized below.

17-8-1: Public Hearing to Consider Proposed Amendments to the Market-Based Compliance Mechanism Regulation (Cap-and-Trade Regulation)

The Board approved proposed amendments to the Cap-and-Trade Regulation (Regulation). The Regulation is one of the measures to achieve the Assembly Bill (AB) 32 requirement to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020 and the Senate Bill (SB) 32 requirement to further reduce GHG emissions to 40 percent below 1990 levels by 2030. The amendments clarify and streamline select requirements of the Regulation; link the Program with the Ontario, Canada, cap-and-trade program; and extend the Program beyond 2020. Later this year, staff will initiate a new Cap-and-Trade Program rulemaking process to implement requirements of recently signed legislation (AB 398). The Board also certified the Final Environmental Analysis and approved the written responses to comments received on the Draft Environmental Analysis prepared for both the proposed amendments to the Cap-and-Trade Regulation and California's Proposed Compliance Plan for the Federal Clean Power Plan (Agenda Item 17-8-2, below).

17-8-2: Public Hearing to Consider California's Proposed Compliance Plan for the Federal Clean Power Plan

The Board approved California's Proposed Compliance Plan (Compliance Plan) to meet the Federal Clean Power Plan (CPP). The CPP fulfills Federal Clean Air Act requirements to limit CO₂ emissions from existing large fossil-fuel-fired electrical generating units (EGUs) and provide reductions in CO₂ emissions of approximately 32 percent from 2005 levels by 2030. The CPP also provides substantial reductions in co-pollutants. States may accept the CPP or develop compliance plans leading to equivalent reductions. The California Compliance Plan requires that EGUs participate in the Cap-and-Trade Regulation, sets interim and final targets and achieves electricity sector reductions beyond Federal targets. The Board also certified the Final Environmental Analysis and approved the written responses to comments received on the Draft Environmental Analysis for both the Proposed Compliance Plan and the proposed amendments to the Cap-and-Trade Regulation.

17-8-3: Public Meeting to Consider the Volkswagen Zero Emission Vehicles Investment Plan

The Board approved the Volkswagen (VW) Zero Emission Vehicles Investment Plan (Plan) with an amendment to encourage the VW subsidiary Electrify America hire contractors from within local and disadvantaged communities to expand zero emission vehicle (ZEV) infrastructure. Appendix C of the Plan requires VW to invest \$800 million in the Plan over 10 years in four consecutive \$200 million 30-month cycles. The investment will support increased ZEV infrastructure (including the development and maintenance of ZEV charging stations), public awareness, increasing ZEV access, and the establishment of a “Green City” with emphasis on transportation electrification projects like car sharing, electric taxis, and zero-emission freight vehicles. The Plan includes a goal that more than 35 percent of the 1,500 plus census tracts prioritized for community charging investments will be in disadvantaged or low-income communities and will increase the charging density within metro areas.

Attachments

CARB June 29, 2017 and July 27, 2017 Meeting Agendas

PUBLIC MEETING AGENDA

June 29, 2017

Webcast

LOCATION:

Sacramento County Administration Center
700 H Street, Room 1450
Sacramento, CA 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 29, 2017
10:00 a.m.

DISCUSSION ITEMS:

Agenda Item #

17-7-1: Public Hearing to Consider Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

Spanish translation will be provided at the Board Meeting for this item, Item 17-7-1.

The Board will consider approving proposed amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions needed to support California's climate change programs. This is the second of two Board hearings on the item.

More Information

Staff Presentation

CLOSED SESSION

The Board will 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 Chamber of Commerce et al. v. California Air Resources Board, Sacramento Superior Court, Case No. 34-2012-80001313; plaintiffs' appeal, California Court of Appeal, Third District, Case No. C075930.

Kimberly-Clark Worldwide, Inc. v. California Air Resources Board, et al., Sacramento County Superior Court, Case No. 34-2015-80002246.

Morning Star Packing Company, et al. v. California Air Resources Board, et al., Sacramento Superior Court, Case No. 34-2013-800001464; plaintiffs' appeal, California Court of Appeal, Third District, Case No. C075954.

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.

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.

Transportation Solutions Defense and Education Fund v. California Air Resources Board, Fresno County Superior Court, Case No. 14CECG01788 (plaintiff's transfer to Sacramento Superior Court, Case No. 34-2014-80001974-CU-WM-GDS).

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.

Alliance for California Business v. California State Transportation Agency, et al., Sacramento County Superior Court, Case No. 34-2016-80002491.

American Coatings Association, Inc. v. State of California and California Air Resources Board, Sacramento County Superior Court, Case No. 04CS01707.

Jack Cody dba Cody Transport v. California Air Resources Board, et al., Sacramento Superior Court, Case No. 34-2015-80002116; plaintiff's appeal, Court of Appeal, Third District, Case No. C083083.

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.

Hamilton v. California Air Resources Board, et al., U.S. District Court for the Eastern District of California, Case No. 1:15-CV-01942-AWI-SKO.

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.

Murray Energy Corporation v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1385.

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.

Owner-Operator Independent Drivers Association Inc. et al. v. Corey et al., U.S. District Court, (E.D. Cal. Fresno) Case No. 1:13-CV-01998-LJO-SAB (transferred by court to E.D. Cal. Sacramento, Case No. 2:14-CV-00186-MCE-AC), plaintiffs' appeal U.S. Court of Appeals, Ninth Circuit, Case Nos. 15-72101 and 15-16429.

California Air Resources Board v. Bombardier Recreational Products, Los Angeles Superior Court, Case No. BC608480.

California Air Resources Board v. BP West Coast Products LLC, Contra Costa County Superior Court, Case No. C12-00567.

California Air Resources Board v. SSA Containers, Inc., Los Angeles County Superior Court, Case No. BC628573 and No. BC628722.

California Air Resources Board v. West Coast Diesel, Inc., Fresno County Superior Court, Case No. 15 CECG 03337.

California Air Resources Board v. Adam Brothers Farming Inc., Santa Barbara County Superior Court, Case No. 16CV01758.

People of the State of California ex rel. California Air Resources Board v. Marten Transport Logistics, LLC, Los Angeles County Superior Court, Case No. BC645288.

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).

Mahan v. California Air Resources Board, Sacramento County Superior Court, Case No. 34-2016-80002416.

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SMOKING IS NOT PERMITTED AT MEETINGS OF THE CALIFORNIA AIR RESOURCES BOARD

PUBLIC MEETING AGENDA

July 27, 2017

[Webcast](#)

LOCATION:

California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium, 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>

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Thursday
July 27, 2017
9:00 a.m.

DISCUSSION ITEMS:

Note: The following agenda items may be heard in a different order at the Board meeting.

Agenda Item #

17-8-1: Public Hearing to Consider Proposed Amendments to the Market-Based Compliance Mechanism Regulation (Cap-and-Trade Regulation)

Spanish translation will be provided at the Board Meeting for this item, Item 17-8-1.

The Board will consider approving proposed amendments to the Cap-and-Trade Regulation. The proposed amendments would enhance current Program implementation and oversight; link the Program with the Ontario, Canada program; and provide that the Program extends beyond 2020.

Consistent with legislative direction, following this Board hearing, ARB will initiate a new rulemaking process to implement the AB 398 requirements for the post-2020 Cap-and-Trade Program.

The Board will also consider certifying the Final Environmental Analysis and approving the written responses to comments received on the Draft Environmental Analysis. The Final Environmental Analysis and the written responses to comments were prepared for both the proposed amendments to the Cap-and-Trade Regulation and the Proposed Compliance Plan (Agenda Item 17-8-2, below).

This is the second of two Board hearings on this item. This action completes a multi-year regulatory process.

[More Information](#)

[Staff Presentation](#)

17-8-2: Public Hearing to Consider California’s Proposed Compliance Plan for the Federal Clean Power Plan

Spanish translation will be provided at the Board Meeting for this item, Item 17-8-2.

The Board will consider California's Proposed Compliance Plan for the Federal Clean Power Plan, which requires that California limit greenhouse gas emissions from many large power plants. The Board will also consider certifying the Final Environmental Analysis and approving the written responses to comments received on the Draft Environmental Analysis. The Final Environmental Analysis and the written responses to comments were prepared for both the Proposed Compliance Plan and the proposed amendments to the Cap-and-Trade Regulation (Agenda Item 17-8-1, above).

This is the second of two Board hearings on this item.

[More Information](#)

[Staff Presentation](#)

17-8-3: Public Meeting to Consider the Volkswagen Zero Emission Vehicles Investment Plan

The Board will hear a staff assessment of the Volkswagen Zero Emission Vehicles Investment Plan (Plan), including the Supplement, and will consider approving the Plan, in whole or in part.

[More Information](#)

[Staff Presentation](#)

CLOSED SESSION

The Board will 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 Chamber of Commerce et al. v. California Air Resources Board, Sacramento Superior Court, Case No. 34-2012-80001313; plaintiffs’ appeal, California Court of Appeal, Third District, Case No. C075930.

Kimberly-Clark Worldwide, Inc. v. California Air Resources Board, et al., Sacramento County Superior Court, Case No. 34-2015-80002246.

Morning Star Packing Company, et al. v. California Air Resources Board, et al., Sacramento Superior Court, Case No. 34-2013-800001464; plaintiffs’ appeal, California Court of Appeal, Third District, Case No. C075954.

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.

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.

Transportation Solutions Defense and Education Fund v. California Air Resources Board, Fresno County Superior Court, Case No. 14CECG01788 (plaintiff's transfer to Sacramento Superior Court, Case No. 34-2014-80001974-CU-WM-GDS).

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.

Alliance for California Business v. California State Transportation Agency, et al., Sacramento County Superior Court, Case No. 34-2016-80002491.

American Coatings Association, Inc. v. State of California and California Air Resources Board, Sacramento County Superior Court, Case No. 04CS01707.

Jack Cody dba Cody Transport v. California Air Resources Board, et al., Sacramento Superior Court, Case No. 34-2015-80002116; plaintiff's appeal, Court of Appeal, Third District, Case No. C083083.

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.

Hamilton v. California Air Resources Board, et al., U.S. District Court for the Eastern District of California, Case No. 1:15-CV-01942-AWI-SKO.

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.

Murray Energy Corporation v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1385.

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.

Owner-Operator Independent Drivers Association Inc. et al. v. Corey et al., U.S. District Court, (E.D. Cal. Fresno) Case No. 1:13-CV-01998-LJO-SAB (transferred by court to E.D.Cal. Sacramento, Case No. 2:14-CV-00186-MCE-AC), plaintiffs' appeal U.S. Court of Appeals, Ninth Circuit, Case Nos. 15-72101 and 15-16429.

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BOARD MEETING DATE: September 1, 2017

AGENDA NO. 28

REPORT: Status Report on Regulation XIII – New Source Review

SYNOPSIS: This report presents the federal Final Determination of Equivalency for January 2015 through December 2015. 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 2015 through December 2015.

COMMITTEE: Stationary Source, July 21, 2017, Reviewed

RECOMMENDED ACTIONS:
Receive and file the attached report.

Wayne Natri
Executive Officer

LT:WCT:JDT

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.

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.

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 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 the 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 2015 FDE is required to be reported to the SCAQMD Board at the September 2017 Governing 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 SCAQMD Board on March 3, 2017 presented the PDE for calendar year 2015 and demonstrated that SCAQMD’s NSR program continued to meet the federal offset requirements for calendar year 2015. 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, which for the calendar year 2015 FDE are calendar years 2016 and 2017.

This report, which presents the FDE covering the calendar year 2015 reporting period, and includes the net emission increase of each nonattainment air contaminant, 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 2015 is summarized in Table 1. Additionally, the projections of SCAQMD’s federal offset account balances for January 2016 through December 2016 and January 2017 through December 2017, 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, therefore, demonstrates that, for calendar years 2015 through 2017, SCAQMD’s NSR program continues to meet and is projected to meet federal offset requirements and is equivalent to those requirements on an aggregate basis². Although the United States Environmental Protection Agency (U.S. EPA) designated the SCAQMD as being in attainment with the federal CO standard effective June 11, 2007, and the South Coast Air Basin 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 2015 through December 2015

DESCRIPTION	VOC	NO _x	SO _x	CO	PM10
2014 Actual Ending Balance^a (tons/day)	98.89	26.13	3.39	12.33	14.59
2015 Discount of Credits for Surplus Adjustment ^b (tons/day)	-0.03	-3.04	0.00	0.00	0.00
2015 Actual Total Credits ^c (lb/day)	5,946	3,642	1,529	6,643	1,027
2015 Actual Total Debits ^c (lb/day)	-719	-838	0	-1,710	-115
2015 Sum of Actual Credits/Debits^c (lb/day)	5,227	2,804	1,529	4,933	912
2015 Sum of Actual Credits/Debits^c (tons/day)	2.61	1.40	0.76	2.47	0.46
2015 Actual Ending Balance^d (tons/day)	101.47	24.49	4.15	14.80	15.05

^a “2014 Actual Ending Balance” is from Table 1 of the 2015 PDE Report dated March 5, 2017.

^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 “2015 Actual Ending Balance” equals the “2014 Actual Ending Balance,” plus the “2015 Discount of Credits for Surplus Adjustment” and the “2015 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 2016 through December 2016, and
January 2017 through December 2017

DESCRIPTION	VOC	NO _x	SO _x	CO	PM10
2015 Actual Ending Balance^a (tons/day)	101.47	24.49	4.15	14.80	15.05
2016 Projected Discount of Credits for Surplus Adjustment ^b (tons/day)	-0.11	-1.16	0.00	-0.11	0.00
2016 Projected Starting Balance (tons/day)	101.36	23.33	4.15	14.69	15.05
2016 Total Projected Credits ^c (lb/day)	9,714	2,313	585	3,990	1,238
2016 Total Projected Debits ^c (lb/day)	-739	-391	0	-4,161	-115
2016 Sum of Projected Credits/Debits^c (lb/day)	8,975	1,922	585	-171	-1,123
2016 Sum of Projected Credits/Debits^c (tons/day)	4.49	0.96	0.29	-0.09	0.56
2016 Projected Ending Balance^d (tons/day)	105.85	24.29	4.44	14.60	15.61
2017 Projected Discount of Credits for Surplus Adjustment ^b (tons/day)	-0.14	-1.38	0.00	-0.12	0.00
2017 Projected Starting Balance (tons/day)	105.71	22.91	4.44	14.48	15.61
2017 Total Projected Credits ^c (lb/day)	9,731	2,393	622	4,034	1,123
2017 Total Projected Debits ^c (lb/day)	-781	-439	0.00	-4,993	-51
2017 Sum of Projected Credits/Debits^c (lb/day)	8,950	1,954	622	-959	1,072
2017 Sum of Projected Credits/Debits^c (tons/day)	4.48	0.98	0.31	-0.48	0.54
2017 Projected Ending Balance^e (tons/day)	110.19	23.89	4.75	14.00	16.15

^a “2015 Actual Ending Balance” is 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 “2016 Projected Ending Balance” equals the “2015 Actual Ending Balance,” plus the “2016 Projected Discount of Credits for Surplus Adjustment” and the “2016 Sum of Projected Credits/Debits.”

^e “2017 Projected Ending Balance” equals the “2016 Projected Ending Balance” plus the “2017 Projected Discount of Credits for Surplus Adjustment” and the “2017 Sum of Projected Credits/Debits.”

Table 3
Cumulative Net Emission Increase
(February 4, 2011 – December 31, 2015)

DESCRIPTION	VOC	NO _x	SO _x	CO	PM10
2014 Net Emission Increase^a (tons/day)	-12.82	-0.85	0.02	N/A	-0.28
2015 Increases in Potential to Emit ^b (tons/day)	2.23	1.24	0.26	N/A	0.67
2015 Decreases in Potential to Emit ^c (tons/day)	-3.72	-2.28	-0.96	N/A	-0.64
Cumulative Net Emission Increase^d (tons/day)	-14.31	-1.89	-0.68	N/A	-0.25
Rule 1315(g) Table B Threshold (through December of 2015 - tons/day)	6.30	0.53	0.14	N/A	0.90

^a “2014 Net Emission Increase” is from Table 3 of the FDE report dated September 2, 2016.

^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, 2015.

Table 4
Projections of Cumulative Net Emission Increase
January 2016 through December 2016, and
January 2017 through December 2017

DESCRIPTION	VOC	NO _x	SO _x	CO	PM10
2015 Net Emission Increase^a (tons/day)	-1.49	-1.04	-0.70	N/A	0.03
2016 Projected Emission Increase ^b (tons/day)	2.92	1.03	0.21	N/A	0.68
2016 Projected Emission Decrease ^b (tons/day)	-5.76	-1.33	-0.32	N/A	-0.70
2016 Projected Cumulative Net Emission Increase^c (tons/day)	-4.33	-1.34	-0.81	N/A	0.01
Rule 1315(g) Table B 2016 Threshold (tons/day)	7.58	0.61	0.18	N/A	1.09
2017 Projected Emission Increase ^d (tons/day)	2.83	1.02	0.22	N/A	0.58
2017 Projected Emission Decrease ^d (tons/day)	-5.88	-1.39	-0.36	N/A	-0.64
2017 Projected Cumulative Net Emission Increase^e (tons/day)	-7.38	-1.71	-0.95	N/A	-0.05
Rule 1315(g) Table B 2017 Threshold (tons/day)	8.85	0.68	0.21	N/A	1.29

- ^a “2015 Net Emission Increase” is the sum of the “2015 Increase in Potential to Emit” and “2015 Decrease in Potential to Emit” shown in Table 3.
- ^b “2016 Projected Emission Increase” and “2016 Projected Emission Decrease” are the averages of the 2011, 2012, 2013, 2014 and 2015 increases and decreases, respectively, in potential to emit.
- ^c “2016 Projected Cumulative Net Emission Increase” is the sum of the “2016 Projected Emission Increase” and “2016 Projected Emission Decrease” added to the “2015 Net Emission Increase.”
- ^d “2017 Projected Emission Increase” and “2017 Projected Emission Decrease” are the averages of the 2012, 2013, 2014, 2015 and projected 2016 increases and decreases, respectively, in potential to emit.
- ^e “2017 Projected Cumulative Net Emission Increase” is the sum of the “2017 Projected Emission Increase” and “2017 Projected Emission Decrease” added to the “2016 Projected Cumulative Net Emission Increase.”

BACKGROUND

SCAQMD originally adopted its New Source Review Rules and Regulations (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 SCAQMD's 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 NO_x). 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, NO_x, and SO_x)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 SO₂ and NO₂; however, SO_x and NO_x 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 nonattainment⁴. 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 NO₂, SO₂, 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 source⁵ 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. SCAQMD has determined that 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 2015 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.

⁴ SOx is a precursor to PM10 and NOx is a precursor to both PM10 and ozone.

⁵ The major source thresholds for SOx, SSAB and MDAB, based on their attainment status during the calendar year 2007 through 2010 reporting periods 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	70 tons/year	70 tons/year	100 tons/year
CO	50 tons/year	100 tons/year	100 tons/year

SCAQMD's Offset Accounts

For the purposes of 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 left in SCAQMD's federal offset account for each pollutant remains positive, indicating that there were adequate offsets available.

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, SCAQMD uses an offset ratio of 1.2-to-1.0 for extreme non-attainment pollutants (ozone and ozone precursors, *i.e.*, VOC and NO_x) and uses 1.0-to-1.0 for all other non-attainment pollutants (non-ozone precursors, *i.e.*, SO_x, 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 NO_x increase at a federal source and 1.0 pound is deducted for each pound of maximum allowable permitted potential to emit SO_x, 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 date⁶, 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

⁶ Refer to Rule 1309(b) for a complete explanation of eligibility requirements.

obtain ERCs for their equipment shutdowns or other eligible emission reductions. 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 2015 and the projections for calendar years 2016 and 2017 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 I 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. This calendar year 2015 FDE includes the fifth report of projections of cumulative net emission increases, and therefore the averages are based on the 2011, 2012, 2013, 2014 and 2015 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 2015, 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 2016 and 2017 are projected to remain positive. This means that the sum of the estimated deposits to and withdrawals from SCAQMD's offset accounts during 2016 and 2017 are projected to remain positive and, therefore, it 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 2015, both the cumulative net emission increase of each nonattainment air contaminant at major and minor facilities and the projected cumulative net emission increase for 2016 and 2017 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 2015 through December 2015)

SCAQMD OFFSETS USED	VOC	NO_x	SO_x	CO	PM₁₀
Priority Reserve (lb/day)	-309	-658	0	0	0
Community Bank (lb/day)	0	0	0	0	0
Rule 1304 Exemptions (lb/day)	-290	-40	0	-1,710	-115
Sum Total of SCAQMD Offsets (lb/day)	-599	-698	0	-1,710	-115
1.2-to-1.0 Offset Ratio (lb/day)	-120	-140	N/A	N/A	N/A
Total Actual Debits to SCAQMD Account (lb/day)	-719	-838	0	-1,710	-115
Total Actual Debits to SCAQMD Account (tons/day)	-0.36	-0.42	0.00	-0.86	-0.06

Table B
Total Actual Credits to SCAQMD’s Federal Offset Accounts
(January 2015 through December 2015)

CREDITS RECEIVED	VOC	NO_x	SO_x	CO	PM10
Major Source Orphan Credits (lb/day)	311	676	168	2,180	46
Minor Source Orphan Credits (lb/day)	7,121	3,877	1,743	6,124	1,238
Total Orphan Credits (lb/day)	7,432	4,553	1,911	8,304	1,284
Adjustment to Actual Emissions ^a (lb/day)	-1,486	-911	-382	-1,661	-257
Discount of ERCs ^b (lb/day)	0	0	0	0	0
Creditable Minor Source ERC Use ^c (lb/day)	0	0	0	0	0
Creditable Major Source ERC Use (lb/day)	0	0	0	0	0
Total Actual Credits to SCAQMD Account (lb/day)	5,946	3,642	1,529	6,643	1,027
Total Actual Credits to SCAQMD Account (tons/day)	2.97	1.82	0.76	3.32	0.51

^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 2015.

Table C
Sum of Final Credits/Debits Activities in SCAQMD's Federal Offset
Accounts
(January 2015 through December 2015)

Description	VOC	NOx	SOx	CO	PM10
Total Actual Debits ^a (lb/day)	-719	-838	0	-1,710	-115
Total Actual Credits ^a (lb/day)	5,946	3,642	1,529	6,643	1,027
Sum of Actual Debits(-)/Credits(+)^a (lb/day)	5,227	2,804	1,529	4,933	912
Sum of Actual Debits(-)/Credits(+)^a (tons/day)	2.61	1.40	0.76	2.47	0.46

^a Debits are shown as negative and Credits as positive, while their sums are shown as negative or positive, as appropriate.



Status Report on Regulation XIII – New Source Review

Governing Board Meeting
September 1, 2017



NSR Status Report Overview

Purpose:

Demonstrate SCAQMD's NSR program meets federal NSR offset requirements for Major Sources, as required by EPA, 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 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
 - Balance of credits in SCAQMD's federal NSR offset account must remain positive
 - Cumulative Net Emission Increase must remain below Rule 1315(g) thresholds



SCAQMD's Federal NSR Offset Accounts Final Determination of Equivalency (FDE) (CY 2015)

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2015 Final Ending Balance (tons/day)	98.89	26.13	3.39	12.33	14.59
2015 Total Credits (tons/day)	2.97	1.82	0.76	3.32	0.52
2015 Total Debits (tons/day)	-0.36	-0.42	0.00	-0.85	-0.06
2015 Total Discount of Credits for Surplus Adjustment (tons/day)	-0.03	-3.04	0.00	0.00	0.00
2015 Final Ending Balance (tons/day)	101.47	24.49	4.15	14.80	15.05



Cumulative Net Emission Increase February 4, 2011 – December 31, 2015

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2014 Net Emission Increase (tons/day)	-12.82	-0.85	0.02	N/A	-0.28
2015 Increases in Potential to Emit (tons/day)	2.23	1.24	0.26	N/A	0.67
2015 Decreases in Potential to Emit (tons/day)	-3.72	-2.28	-0.96	N/A	-0.64
Cumulative Net Emission Increase (tons/day)	-14.31	-1.89	-0.68	N/A	-0.25
Rule 1315(g) Table B Threshold (tons/day)	6.30	0.53	0.14	N/A	0.90



SCAQMD's Projected Federal NSR Offset Accounts CY 2016

DESCRIPTION	VOC	NOx	SOx	CO	PM10
2015 Final Ending Balance (tons/day)	101.47	24.49	4.15	14.80	15.05
CY 2016 Total Projected Credits (tons/day)	4.86	1.16	0.29	1.99	0.62
CY 2016 Total Projected Debits (tons/day)	-0.37	-0.20	0.00	-2.08	-0.06
CY 2016 Total Projected Discount of Credits for Surplus Adjustment (tons/day)	-0.11	-1.16	0.00	-0.11	0.00
CY 2016 Projected Ending Balance (tons/day)	105.85	24.29	4.44	14.60	15.61



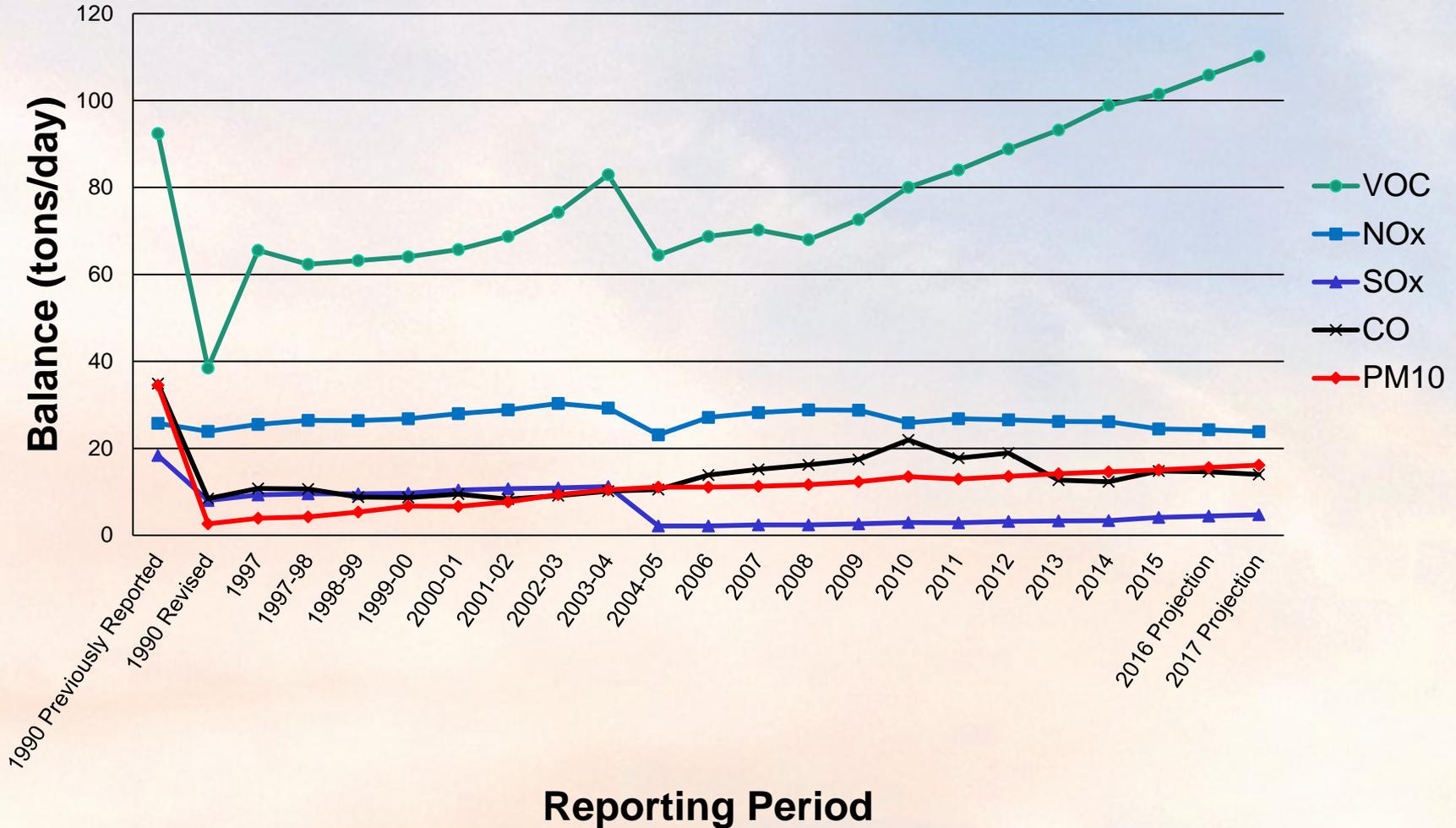
SCAQMD's Projected Federal NSR Offset Accounts CY 2017

DESCRIPTION	VOC	NOx	SOx	CO	PM10
CY 2016 Projected Ending Balance (tons/day)	105.85	24.29	4.44	14.60	15.61
CY 2017 Total Projected Credits (tons/day)	4.89	1.20	0.31	2.02	0.56
CY 2017 Total Projected Debits (tons/day)	-0.39	-0.22	0.00	-2.50	-0.02
CY 2017 Total Projected Discount of Credits for Surplus Adjustment (tons/day)	-0.14	-1.38	0.00	-0.12	0.00
CY 2017 Projected Ending Balance (tons/day)	110.19	23.89	4.75	14.00	16.15



SCAQMD's Federal Offset Account Balances

(1990 – 2015, and 2016-2017 Projections)





Conclusions

- The Final Determination of Equivalency for CY 2015 shows SCAQMD's NSR program continued to be at least equivalent to the federal NSR offset requirements
- For CYs 2016 and 2017 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 Increase for CY 2015 remained below the thresholds identified in Table B of Rule 1315(g)(4)
- Next Preliminary Determination of Equivalency for CY 2016 will be presented to the Governing Board in February 2018

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 29

PROPOSAL: Determine That Proposed Amendments to Rule 1401 Are Exempt from CEQA and Amend Rule 1401 – New Source Review of Toxic Air Contaminants

SYNOPSIS: In June 2015, Rule 1401 – New Source Review of Toxic Air Contaminants, was amended to incorporate the 2015 Revised OEHHA Health Risk Assessment Guidelines (2015 OEHHA Guidelines). The amendments allowed spray booths and retail gasoline dispensing facilities to use 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 Guidelines is expected to have minimal impacts to new or modified spray booths or gasoline dispensing facilities. Staff recommends that these two source categories begin using the SCAQMD’s Risk Assessment Procedures (Version 8.1) which incorporate the 2015 OEHHA Guidelines for spray booths and gasoline dispensing facilities, revised emission factors and speciation profiles for gasoline dispensing facilities, and updated meteorological data. The proposed changes will also update the list of toxic air contaminants.

COMMITTEE: Stationary Source, July 21, 2017, Reviewed

RECOMMENDED ACTIONS:

1. Adopt the attached Resolution:
 - a. Determining that Proposed Amendments to Rule 1401 – New Source Review of Toxic Air Contaminants, are exempt from the requirements of the California Environmental Quality Act; and
 - b. Amending Rule 1401 – New Source Review of Toxic Air Contaminants.

2. Receive and file:
 - SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1 and 212 (Version 8.1)

Wayne Natri
Executive Officer

PF:SN:JW:MM:KC

Background

Rule 1401 – New Source Review of Toxic Air Contaminants, was adopted in June 1990 and establishes cancer and non-cancer health risk thresholds for new, relocated or modified permitted sources. In March 2015, the California Office of Environmental Health Hazard Assessment (OEHHA) revised its methodology to estimate health risks to account for child-specific factors, which resulted in an increased estimated health risk for residential and sensitive receptors by approximately 2.3 times. OEHHA’s Risk Assessment Guidelines are incorporated in the SCAQMD Risk Assessment Procedures, which are required for implementing Rules 1401, 1401.1 and 212. On June 5, 2015, the SCAQMD Governing Board adopted amendments to Rule 1401 and incorporated the 2015 OEHHA Guidelines into SCAQMD’s Risk Assessment Procedures (Version 8.0).

During the June 2015 amendments to Rule 1401, the SCAQMD staff concluded that additional analysis was needed to better assess potential permitting impacts for spray booths based on an initial screening in 2015 that indicated that some spray booths may have difficulties meeting the Rule 1401 risk thresholds using the 2015 OEHHA Guidelines. In addition, time was also needed to better understand the impacts from gasoline dispensing facilities before use of the 2015 OEHHA Guidelines, and updates to emission factors and speciation profiles for gasoline dispensing facilities that the California Air Resources Board (CARB) was recommending. Therefore, provisions were included in the June 2015 amendment to Rule 1401¹ to allow spray booths and retail gasoline transfer and dispensing facilities to use the then-current SCAQMD Risk Assessment Procedures (Version 7.0).

Proposal

Staff has since completed analyzing potential permitting impacts for spray booths and gasoline dispensing facilities. Implementation of the 2015 OEHHA Guidelines is expected to have minimal impacts to new or modified spray booth or gasoline dispensing facilities. Less than one percent of newly permitted spray booths that are

¹ SCAQMD’s June 2015 Staff Report for Proposed Amended Rules 212 – Standards for Approving Permits and Issuing Public Notice, 1401 – New Source Review of Toxic Air Contaminants, 1401.1 – Requirements for New and Relocated Facilities Near Schools, and 1402 – Control of Toxic Air Contaminants from Existing Sources,” can be found here: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-jun1-028.pdf?sfvrsn=9>

using chromate based materials may need to upgrade pollution controls to stay under Rule 1401 health risk thresholds. No impacts are expected for modified gasoline dispensing facilities and less than four percent of new gasoline dispensing facilities may need to conduct a more refined health risk assessment, or locate sources farther away from sensitive receptors or reduce their requested throughput to demonstrate compliance with Rule 1401 health risk thresholds. As a result, Proposed Amended Rule 1401 will require spray booths and gasoline dispensing facilities to begin using the SCAQMD's Risk Assessment Procedures (Version 8.1) which incorporate the 2015 OEHHA Guidelines for spray booths and gasoline dispensing facilities and include revised emission factors and speciation profiles for gasoline dispensing facilities, and updated meteorological data.

Proposed Amended Rule 1401 will also update the list of toxic air contaminants (Table 1) subject to the rule to be consistent with OEHHA. Two new toxic air contaminants, namely caprolactum and carbonyl sulfide, will be added to Table 1. The inclusion of these two compounds is not expected to require additional pollution controls as the sources of those emissions already are expected to have pollution controls. Acute health risk values will be added to methylene diphenyl diisocyanate, 1,3-butadiene, and toluene diisocyanates, all of which are already in Table 1 with cancer or chronic risk values. The inclusion of an acute reference exposure level for these three compounds is not expected to have any additional impacts on permitted sources because the cancer risk or chronic risk is more stringent for permitting decisions. Additionally, several compounds will be included on the list for clarity and consistency with CARB's Consolidated Table of OEHHA/CARB Approved Risk Assessment Health Values.

Public Process

Proposed Amended Rule 1401 was developed through a public process. Through the rulemaking process, staff held four stakeholder Working Group Meetings to discuss provisions of the proposed rule: June 1, 2017, July 6, 2017, July 20, 2017, and August 16, 2017. In addition, staff held a Public Workshop on July 12, 2017.

Key Issue

In December 2013, CARB revised emission factors for gasoline dispensing facilities. SCAQMD staff has reviewed the emission factor for refueling, and believes that CARB's 2013 revised emission factors may overestimate the emission reductions from Phase II refueling with On-board Refueling Vapor Recovery (ORVR) system vehicles. Based on recent information, CARB has conducted an initial analysis and agrees that the 2013 emission factor for Phase II refueling with ORVR may overestimate emission reductions and will be revising the refueling emission factor for Phase II and ORVR vehicles. In the interim, staff is recommending to not incorporate CARB's 2013 revised emission factor for Phase II refueling of ORVR vehicles, but to continue the use of SCAQMD's current emission factor of 0.32 pounds per 1,000 gallons for refueling. Staff is recommending the use of CARB's 2013 emission factors for all other categories

(loading, breathing, spillage, and hose permeation). SCAQMD staff is committed to continue working with CARB staff to refine the refueling emission estimates for Phase II controls with ORVR vehicles and will return to the Governing Board with future revisions for the refueling emission factor after CARB finalizes revisions.

At the August 16, 2017 Working Group Meeting, CARB staff presented their initial findings and commitment to revisit the emission estimates for Phase II controls with ORVR vehicles. Some stakeholders requested that staff continue to include the provision to exempt new and modified gasoline dispensing facilities from using the proposed Risk Assessment Procedures (Version 8.1) and allow gasoline dispensing facilities to use the current SCAQMD emission factors and SCAQMD Risk Assessment Procedures (Version 7.0) until CARB finalizes the revised refueling emission factor. Based on gasoline dispensing facilities that were permitted over a five-year period, using the 2013 emission factors with the previously proposed refueling emission factor of 0.42 (includes refueling and breathing) lbs per 1,000 gallons, combined with the 2015 OEHHA Guidelines and updated meteorological data (Risk Assessment Procedures (Version 8.1)) would have resulted in no impacts to gasoline dispensing facilities that were modified and less than four percent impact to new gasoline dispensing facilities (less than one new gasoline dispensing facility per year). Therefore, the impacts to gasoline dispensing facilities using the current SCAQMD refueling emission factor of 0.32 lbs per 1,000 gallons would be less than what was analyzed in the Draft Staff Report. Moreover, there is no reason to delay the implementation of 2015 OEHHA Guidelines for gasoline stations.

California Environmental Quality Act

Pursuant to the California Environmental Quality Act (CEQA) and SCAQMD Rule 110, the SCAQMD, as lead agency for the proposed project, has reviewed the proposed amendments to Rule 1401 pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. To comply with the requirements in Proposed Amended Rule 1401, new and modified spray booths would require more efficient filters to control emissions, and new and modified gasoline dispensing facilities may either comply by requesting a lower throughput, or by increasing the distance to the nearest residential receptor, or by conducting a Tier 3 or Tier 4 analysis. According to staff's analysis, very few facilities would be affected. In any event, there would be no physical change to gasoline dispensing facilities and very minimal physical changes to spray booths due to implementing Proposed Amended Rule 1401. SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 - Notice

of Exemption, and is included as an attachment to the Board package. If the project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Socioeconomic Analysis

A socioeconomic analysis was conducted for Proposed Amended Rule 1401. Based on staff's analysis of SCAQMD permits, two spray booths and one gasoline dispensing facility per year could potentially incur costs to comply with Proposed Amended Rule 1401. Spray booths belong to various sectors of the economy such as manufacturing, wholesale, retail, services, and the affected gasoline dispensing facilities belong to the sector of retail services. The potentially affected facilities are likely to be small businesses.

Based on review of spray booths permitted between 2009 and 2014, an average of two spray booths per year are expected to need to install ultra-low particulate air (ULPA) filters instead of high efficiency particulate air (HEPA) filters to obtain new or modified permits pursuant to Proposed Amended Rule 1401. While the filter costs are similar, ULPA filters require the use of a higher horsepower blower that is more expensive and uses more electricity. The resultant incremental costs for a total of two affected spray booths is estimated at \$7,450 over a five-year period. An average of one gasoline dispensing facility per year is expected to need to choose from various compliance options to obtain new permits pursuant to Proposed Amended Rule 1401. It is assumed in this analysis that the affected facility would proceed to a Tier 4 Health Risk Assessment and incur a one-time cost of dispersion modeling of \$15,000. Other compliance options for permitting a new gasoline dispensing facility include lowering the requested throughput or reorienting equipment or siting the gasoline dispensing sources further from sensitive receptors. Therefore, the overall compliance cost is estimated at \$22,450 per year, which would result in a minimal job impact in the regional economy.

AQMP and Legal Mandates

State law requires the District to conduct health risk assessment under AB 2588 "in accordance with guidelines established by" OEHHA. To be consistent, Rule 1401 should be amended to conform gasoline dispensing facilities and spray booths to this requirement. Proposed Amended Rule 1401 is not a control measure in the 2016 AQMP but is needed to reduce exposure and associated health risk impacts from toxic emissions from stationary sources. Proposed Amended Rule 1401 will not be submitted for inclusion into the State Implementation Plan.

Implementation and Resource Impact

Existing SCAQMD resources will be used to implement Proposed Amended Rule 1401.

Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Proposed Amended Rule 1401
- G. Staff Report for Proposed Amended Rule 1401
- H. Notice of Exemption from the California Environmental Quality Act
- I. SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1, and 212
(Version 8.1)
- J. Board Meeting Presentation

ATTACHMENT A
SUMMARY OF PROPOSAL

Proposed Amended Rule 1401 – New Source Review of Toxic Air Contaminants

Summary of Proposed Amendments

- Remove provision that excludes spray booths and gasoline dispensing facilities from using the most recent version of the SCAQMD Risk Assessment Procedures
- Reference SCAQMD Risk Assessment Procedures to Version 8.1 which incorporates the 2015 OEHHA Guidelines for spray booths and gasoline dispensing facilities, revised emission factors and speciation profiles for gasoline dispensing facilities, and updated meteorological data
- Update the list of toxic air contaminants in Table 1 of Rule 1401 to be consistent with the current list used by OEHHA
 - New compounds: caprolactam and carbonyl sulfide
 - Compounds with added health risk values: 1,3-butadiene, methylene diphenyl diisocyanate, toluene-2,4-diisocyanate, and toluene-2,6-diisocyanate
 - Compounds added for clarifications and consistency, or correction of typographic errors: 1,1-dichloroethylene, fluorides, alpha hexachlorocyclohexane, beta hexachlorocyclohexane, barium chromate, calcium chromate, chromic trioxide, sodium dichromate, strontium chromate, zinc chromate, and vanadium

ATTACHMENT B KEY ISSUES AND RESPONSES

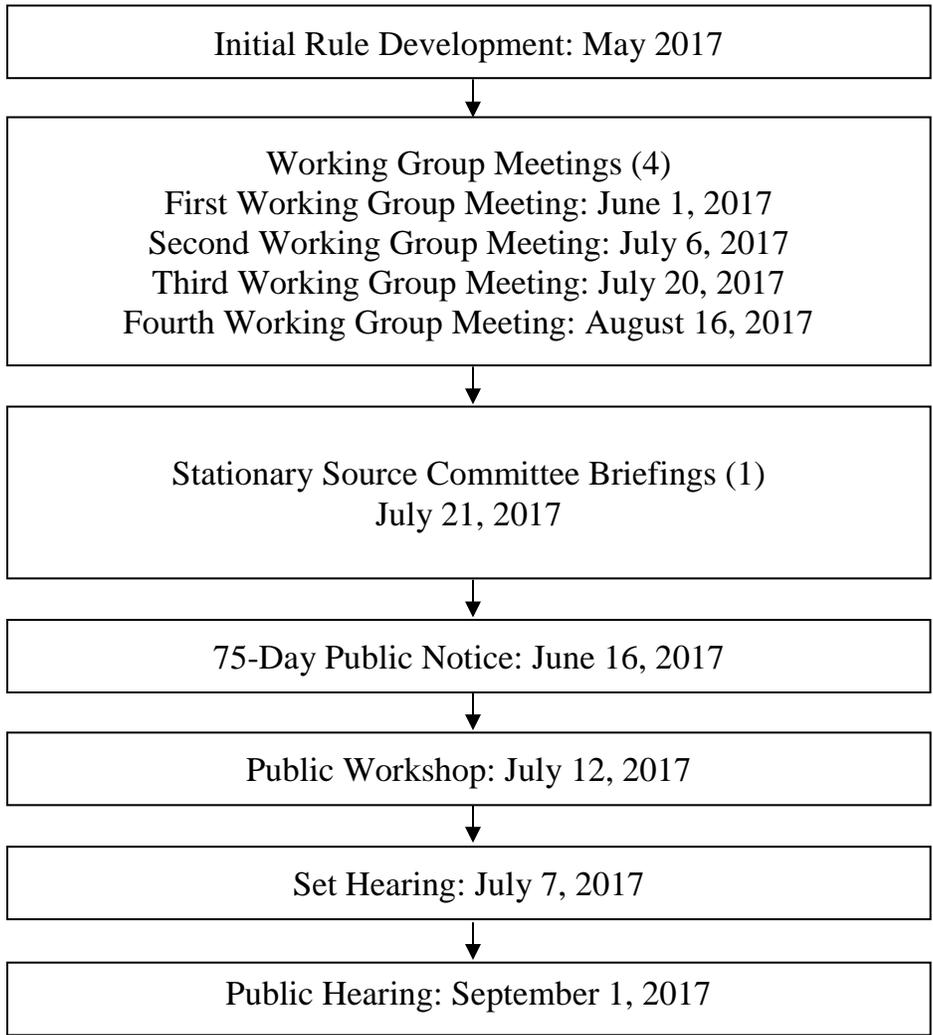
Proposed Rule 1401 – New Source Review of Toxic Air Contaminants

Emission Factor for Phase II Refueling for Gasoline Dispensing Facilities:

The proposed amendments to Rule 1401 include incorporation of CARB's 2013 recommended emission factors and speciation profiles for gasoline dispensing facilities. CARB's approach to derive the refueling emission factor is to apply a 95 percent control efficiency for Phase II enhanced vapor recovery (EVR), and an additional 95 percent control efficiency for the On-board Refueling Vapor Recovery (ORVR) system to provide an overall control efficiency for refueling of 99.75 percent. Based on SCAQMD staff's review of the Phase II EVR and ORVR technologies, these two pollution control technologies may not work in series to provide a 99.75 percent control efficiency, and that CARB's 2013 revised emission factors may overestimate the emission reductions from Phase II refueling of ORVR vehicles.

- Both CARB and SCAQMD staff agree that additional time is needed to better understand emission reductions from Phase II EVR refueling of ORVR vehicles.
- SCAQMD staff is recommending to not incorporate CARB's 2013 revised emission factor for Phase II refueling of ORVR vehicles, but to continue the use of SCAQMD's current emission factor of 0.32 lbs per 1,000 gallons for refueling.
- Based on new information, CARB is preparing a draft addendum to revise the refueling emission factor which will need to go through CARB's internal review, CAPCOA review, and a public review and comment period.
 - Some stakeholders requested that staff continue to allow gasoline dispensing facilities to use the current SCAQMD emission factors and SCAQMD Risk Assessment Procedures (Version 7.0) until CARB finalizes the revised refueling emission factor.
 - Based on staff analysis of Risk Assessment Procedures (Version 8.1) there would be no impacts to modified gasoline dispensing facilities and one new gasoline dispensing facility could be impacted per year. Therefore, the impacts to gasoline dispensing facilities using the current SCAQMD refueling emission factor of 0.32 lbs per 1,000 gallons would be less than what was analyzed (0.42 lbs per 1,000 gallons for refueling and breathing) in the Draft Staff Report.
- SCAQMD staff is committed to continue working with CARB staff to refine the refueling emission estimates for Phase II controls with ORVR vehicles and will return to the Board with future revisions to the refueling emission factor.

ATTACHMENT C
RULE DEVELOPMENT PROCESS
Proposed Rule 1401 – New Source Review of Toxic Air Contaminants



4 months spent in rule development
1 Public Workshop
4 Working Group Meetings

ATTACHMENT D
KEY CONTACTS LIST

American Coatings Association
The Boeing Company
California Air Resources Board
California Council for Environmental and Economic Balance
California Independent Oil Marketers Association
California Small Business Alliance
Capistrano Unified School District
City of Los Angeles
City of Paramount
City of San Bernardino Municipal Water Department
Costco Wholesale Corporation
Los Angeles Department of Water and Power
Los Angeles Internal Services Department
Los Angeles Unified School District
MD Environmental
Metal Finishing Association of Southern California
Metropolitan Water District of Southern California
Nasmyth Group
OmniTrans
Pillsbury Winthrop Shaw Pittman LLP
Ramboll Environ
Sanitation Districts of Los Angeles County
Southern California Alliance of Publicly Owned Treatment Works
Southern California Gas
State Senator Ed Hernandez
Tesoro Corporation
Trinity Consultants
Western States Petroleum Association

ATTACHMENT E

RESOLUTION NO. 17-_____

A Resolution of the Governing Board of the South Coast Air Quality Management District (SCAQMD) determining that the proposed amendments to Rule 1401 – New Source Review of Toxic Air Contaminants, are exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the SCAQMD Governing Board amending Rule 1401 – New Source Review of Toxic Air Contaminants.

WHEREAS, the SCAQMD Governing Board finds and determines that Proposed Amended Rule 1401 is considered a “project” pursuant to CEQA per CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and

WHEREAS, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and has conducted a CEQA review and analysis of the proposed amendments to Rule 1401 pursuant to such program (SCAQMD Rule 110); and

WHEREAS, the SCAQMD Governing Board finds and determines that after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA, the proposed amendments to Rule 1401 are determined to be exempt from CEQA; and

WHEREAS, the SCAQMD Governing Board finds and determines that it can be seen with certainty that there is no possibility that the proposed project may have any significant effects on the environment, and is therefore, exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered By General Rule; and

WHEREAS, SCAQMD staff has prepared a Notice of Exemption for the proposed project, that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, Proposed Amended Rule 1401 and supporting documentation, including but not limited to, the Notice of Exemption, the Socioeconomic Impact Assessment, and the Staff Report, were presented to the

SCAQMD Governing Board and the SCAQMD Governing Board has reviewed and considered the entirety of this information, as well as has taken and considered staff testimony and public comment prior to approving the project; 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) of the Administrative Code), that the modifications which have been made to Proposed Amended Rule 1401 since the notice of public hearing was published do not significantly change the meaning of the proposed amended rule within the meaning of Health and Safety Code Section 40726; and

WHEREAS, Proposed Amended Rule 1401 is not a control measure in the 2016 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 Amended Rule 1401 will not be submitted for inclusion into the State Implementation Plan; and

WHEREAS, the SCAQMD staff conducted a public workshop regarding Proposed Amended Rule 1401 on July 12, 2017; 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 staff report; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1401 is needed to update risk assessment procedures for specific source categories; and

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Sections 39002, 39650 et Seq., 40000, 40001, 40440, 40441, 40702, 40725 through 40728, 41508, 41700, and 42300 et. seq. of the Health and Safety Code; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1401, as proposed to be amended, is written and displayed so that the meaning can be easily understood by persons directly affected by it; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1401, as proposed to be amended, 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 1401, as proposed to be amended, does not impose the same requirements as any existing state or federal regulations, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD; 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 42301 (purposes of permit system), 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 1401 is included in the staff report; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment, as contained in the Final Staff Report, of Proposed Amended Rule 1401 is consistent with the March 17, 1989 Governing Board Socioeconomic Resolution for rule adoption; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment, as contained in the Final Staff Report, is consistent with the provisions of the Health and Safety Code Sections 40440.8, 40728.5, 40920.6; and

WHEREAS, the SCAQMD Board has actively considered the Socioeconomic Impact Assessment, as contained in the Final Staff Report, and has made a good faith effort to minimize such impacts; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1401 will result in increased costs, yet such costs are considered to be reasonable, with a total annualized cost as specified in the Socioeconomic Impact Assessment, as contained in the Final Staff Report; and

WHEREAS, the SCAQMD Governing Board specifies the Assistant Deputy Executive Officer overseeing the rule development for Proposed Amended Rule 1401 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 SCAQMD, 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; and

WHEREAS, the SCAQMD staff and the California Air Resources Board (CARB) staff have been in communication regarding the refueling emission factor to account for emission reductions from Enhanced Vapor Recovery and the On-board Refueling Vapor Recovery (ORVR) system, and CARB will be reevaluating its 2013 emission factor recommended for this category; and

NOW, THEREFORE BE IT RESOLVED, that the SCAQMD Governing Board does hereby determine, pursuant to the authority granted by law, that the proposed amendments to Rule 1401 are exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered By General Rule. This information was presented to the SCAQMD Governing Board, whose members reviewed, considered, and approved the information therein prior to acting on the proposed amendments to Rule 1401; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board directs staff to continue working with CARB to refine the emission estimates for Phase II refueling with ORVR vehicles and to return to the Governing Board when a refueling emission factor has been agreed upon; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board directs staff to report to the Stationary Source Committee within 30 days after CARB finalizes revisions for the refueling emission factor for Enhanced Vapor Recovery and ORVR systems and to return to the Governing Board as quickly as practicable with revisions to update the SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1, and 212 to reflect emission factor revisions from CARB; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1401 as set forth in the attached, and incorporated herein by reference.

DATE: _____

CLERK OF THE BOARDS

ATTACHMENT F

(Adopted June 1, 1990)(Amended December 7, 1990)(Amended July 10, 1998)
(Amended January 8, 1999)(Amended March 12, 1999)(Amended August 13, 1999)
(Amended March 17, 2000)(Amended August 18, 2000)(Amended June 15, 2001)
(Amended May 3, 2002)(Amended February 7, 2003)(Amended May 2, 2003)
(Amended March 4, 2005)(Amended March 7, 2008)(Amended June 5, 2009)
(Amended September 10, 2010)(Amended June 5, 2015)(Amended October 7, 2016)
(Proposed Amended Rule September 2017)

PROPOSED AMENDED RULE 1401. NEW SOURCE REVIEW OF TOXIC AIR CONTAMINANTS

(a) Purpose

This rule specifies limits for maximum individual cancer risk (MICR), cancer burden, and noncancer acute and chronic hazard index (HI) from new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants listed in Table I. The rule establishes allowable risks for permit units requiring new permits pursuant to Rules 201 or 203.

(b) Applicability

- (1) Applications for new, relocated, and modified permit units which were received by the District on or after June 1, 1990 shall be subject to Rule 1401. Applications shall be subject to the version of Rule 1401 that is in effect at the time the application is deemed complete. Permit units installed without a required permit to construct shall be subject to this rule, if the application for a permit to operate such equipment was submitted after June 1, 1990.
- (2) This rule shall apply to new, relocated, and modified equipment identified in Rule 219 as not requiring a written permit if the risk from the equipment will be greater than identified in subparagraph (d)(1)(A), or paragraphs (d)(2) or (d)(3) in Rule 1401.

(c) Definitions

- (1) ACCEPTABLE STACK HEIGHT for a permit unit is defined as a stack height that does not exceed two and one half times the height of the permit unit or two and one half times the height of the building housing the permit unit, and shall not be greater than 65 meters (213 feet), unless the applicant demonstrates to the satisfaction of the Executive Officer that a greater height is necessary.

- (2) BEST AVAILABLE CONTROL TECHNOLOGY FOR TOXICS (T-BACT) means the most stringent emissions limitation or control technique which:
- (A) has been achieved in practice for such permit unit category or class of source; or
 - (B) is any other emissions limitation or control technique, including process and equipment changes of basic and control equipment, found by the Executive Officer to be technologically feasible for such class or category of sources, or for a specific source.
- (3) CANCER BURDEN means the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1.0×10^{-6}) resulting from exposure to toxic air contaminants.
- (4) CONTEMPORANEOUS RISK REDUCTION means any reduction in risk resulting from a decrease in emissions of toxic air contaminants at the facility that is permanent, real, quantifiable and enforceable through District permit conditions. Permit applications associated with the increase and decrease in risk must be submitted together and the reduction of risk must occur before the start of operation of the permit unit that will have an increased risk. A contemporaneous risk reduction shall be calculated based on the actual average annual emissions, as determined by facility records, and annual emissions declarations pursuant to Rule 301 as appropriate, or other data approved by the Executive Officer, whichever is less, which have occurred during the two-year period immediately preceding the date of application.
- (5) FACILITY means any permit unit or grouping of permit units 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 groupings, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Notwithstanding the above, 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.

- (6) INDIVIDUAL SUBSTANCE ACUTE HAZARD INDEX (HI) is the ratio of the estimated maximum one-hour concentration of a toxic air contaminant for a potential maximally exposed individual to its acute reference exposure level.
- (7) INDIVIDUAL SUBSTANCE CHRONIC HAZARD INDEX (HI) is the ratio of the estimated long-term level of exposure to a toxic air contaminant for a potential maximally exposed individual to its chronic reference exposure level. The chronic hazard index calculations shall include multipathway consideration, if applicable.
- (8) MAXIMUM INDIVIDUAL CANCER RISK (MICR) is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to toxic air contaminants for residential receptor locations calculated pursuant to the Risk Assessment Procedures referenced in subdivision (e). The MICR for worker receptor locations shall be calculated pursuant to the Risk Assessment Procedures referenced in subdivision (e). The MICR calculations shall include multipathway consideration, if applicable.
- (9) MODIFICATION means any physical change in, change in method of operation, or addition to an existing permit unit that requires an application for a permit to construct and/or operate. 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:
 - (A) an increase in the production rate, unless such increase will cause the maximum design capacity of the equipment to be exceeded; or
 - (B) an increase in the hours of operation; or
 - (C) a change in ownership of a source; or
 - (D) a change in formulation of the materials processed which will not result in a net increase of the MICR, cancer burden, or chronic or acute HI from the associated permit unit.

For facilities that have been issued a facility permit pursuant to Regulation XX or a Title V permit pursuant to Regulation XXX, modification means any physical change in, change in method of operation of, or addition to an

existing individual article, machine, equipment or other contrivance which would have required an application for a permit to construct and/or operate, were the unit not covered under a facility permit or Title V permit.

- (10) PERMIT UNIT means any article, machine, equipment, or other contrivance, or combination thereof, which may cause or control the issuance of air contaminants, and which requires a written permit pursuant to Rules 201 and/or 203. For facilities that have been issued a facility permit or Title V permit, a permit unit for the purpose of this rule means any individual article, machine, equipment or other contrivance which may cause or control the issuance of air contaminants and which would require a written permit pursuant to Rules 201 and/or 203 if it was not covered under a facility permit or Title V permit. For publicly-owned sewage treatment operations, each process within multi-process permit units at the facility shall be considered a separate permit unit for purposes of this rule.
- (11) RECEPTOR LOCATION means
- (A) for the purpose of calculating acute HI, any location outside the boundaries of the facility at which a person could experience acute exposure; and
 - (B) for the purpose of calculating chronic HI and MICR, any location outside the boundaries of the facility at which a person could experience chronic exposure.

The Executive Officer shall consider the potential for exposure in determining whether the location will be considered a receptor location.

- (12) RELOCATION means the removal of an existing permit unit from one parcel of land in the District and installation at another parcel of land where two parcels are not in actual physical contact and are not separated solely by a public roadway or other public right-of-way. The removal of a permit unit from one location within a facility and installation at another location within the facility is a relocation only if an increase in maximum individual cancer risk in excess of one in one million (1.0×10^{-6}) or a Hazard Index of 1.0 occurs at any receptor location.
- (13) TOTAL ACUTE HAZARD INDEX (HI) is the sum of the individual substance acute HIs for all toxic air contaminants affecting the same target organ system.

- (14) TOTAL CHRONIC HAZARD INDEX (HI) is the sum of the individual substance chronic HIs for all toxic air contaminants affecting the same target organ system.
- (15) TOXIC AIR CONTAMINANT is an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. For the purpose of this rule, toxic air contaminants are those listed in Table I.

(d) Requirements

The Executive Officer shall deny the permit to construct a new, relocated or modified permit unit if emissions of any toxic air contaminant listed in Table I may occur, unless the applicant has substantiated to the satisfaction of the Executive Officer all of the following:

(1) MICR and Cancer Burden

The cumulative increase in MICR which is the sum of the calculated MICR values for all toxic air contaminants emitted from the new, relocated or modified permit unit will not result in any of the following:

- (A) an increased MICR greater than one in one million (1.0×10^{-6}) at any receptor location, if the permit unit is constructed without T-BACT;
- (B) an increased MICR greater than ten in one million (10×10^{-6}) at any receptor location, if the permit unit is constructed with T-BACT;
- (C) a cancer burden greater than 0.5.

(2) Chronic Hazard Index

The cumulative increase in total chronic HI for any target organ system due to total emissions from the new, relocated or modified permit unit owned or operated by the applicant for which applications were deemed complete on or after the date when the risk value for the compound is finalized by the state Office of Environmental Health Hazard Assessment (OEHHA) will not exceed 1.0 at any receptor location.

(3) Acute Hazard Index

The cumulative increase in total acute HI for any target organ system due to total emissions from the new, relocated or modified permit unit owned or operated by the applicant for which applications were deemed complete on or after the date when the risk value for the compound is finalized by OEHHA will not exceed 1.0 at any receptor location.

(4) If a permit contains operating conditions imposed pursuant to Rule 1401, which prohibit or limit the use or emission of toxic air contaminants, those conditions shall apply only to those toxic air contaminants listed in the version of Rule 1401 applicable at the time the permit conditions were imposed.

(5) Federal New Source Review for Toxics

Pursuant to Section 112(g) of the federal Clean Air Act (CAA), no person shall begin construction or reconstruction of a major stationary source emitting hazardous air pollutants listed in Section 112 (b) of the CAA, unless the source is constructed with Best Available Control Technology for Toxics (T-BACT) and complies with all other applicable requirements, including definitions and public noticing, referenced in 40 CFR 63.40 through 63.44. The requirements of this paragraph shall not apply to:

- (A) any source that is subject to an existing National Emission Standard for Hazardous Air Pollutants (NESHAP) pursuant to sections 112(d), 112(h), or 112(j) of the federal CAA;
- (B) any source that is exempted from regulations under a NESHAP issued pursuant to sections 112(d), 112(h), or 112(j) of the federal CAA;
- (C) any source that has received all necessary air quality permits for such construction or reconstruction before June 29, 1998;
- (D) electric utility steam generating units, unless and until such time as these units are added to the source category list pursuant to the requirements of section 112(c)(5) of the federal CAA;
- (E) any sources that are within a source category that has been deleted from the source category list pursuant to section 112(c)(9) of the federal CAA; or
- (F) research and development activities.

Compliance with this paragraph does not relieve any owner or operator of a major stationary source from complying with all other applicable District rules and regulations, including this rule, any applicable state airborne toxic control measure, or other applicable state and federal laws. Exemptions under subdivision (g) of this rule do not apply to this paragraph. This paragraph shall take effect retroactively from June 29, 1998.

(e) Risk Assessment Procedures

- (1) The Executive Officer shall periodically publish procedures for determining health risks under this rule, ~~except as provided in paragraph (e)(3).~~ To the extent possible, the procedures will be consistent with the most recently adopted policies and procedures of the state OEHHA.
- (2) To calculate the cumulative increase in MICR pursuant to paragraph (d)(1), the increase from each permit unit shall be based on the emissions of toxic air contaminants, the risk values, and risk assessment procedures applicable at the time when each complete application was deemed complete by the District.
- ~~(3) The following equipment or industry source categories shall be allowed to use SCAQMD Risk Assessment Procedures for Rules 1401 and 212 (Version 7.0, July 1, 2005) in order to calculate the cumulative increase in MICR pursuant to paragraph (d)(1):~~
 - ~~(A) spray booths, until the Executive Officer, as quickly as practicable, can make a recommendation regarding a regulation and/or procedures, and the Board approves regulations and/or procedures specific to this source category; and~~
 - ~~(B) retail gasoline transfer and dispensing facilities as defined in District Rule 461, until the Executive Officer, as quickly as practicable, can provide an analysis of emissions data from gasoline dispensing activities to the Governing Board, and the Board approves regulations and/or procedures, if needed, specific to this industry.~~
- (f) Emissions Calculations
 - (1) For the purpose of determining MICR and cancer burden due to a new or relocated permit unit pursuant to this rule, the total Toxic Air Contaminant emissions from the new or relocated permit unit shall be calculated on an annual basis from permit conditions which directly limit the emissions or, when no such conditions are imposed, from:
 - (A) the maximum rated capacity;
 - (B) the maximum possible annual hours of operation;
 - (C) the maximum annual emissions; and
 - (D) the physical characteristics of the materials processed.
 - (2) For the purpose of determining chronic HI due to a new or relocated permit unit pursuant to this rule, the total emissions from a permit unit shall be

calculated on an annual average basis from permit conditions which directly limit the emissions or, when no such conditions are imposed, from:

- (A) the maximum rated capacity;
 - (B) the annual average hours of operation;
 - (C) the annual average emissions; and
 - (D) the physical characteristics of the materials processed.
- (3) For the purpose of determining MICR, cancer burden and chronic HI due to a modified permit unit pursuant to this rule, the increase in emissions from the modified permit unit shall be calculated based on the difference between the total permitted emissions after the modification, calculated pursuant to the criteria established in subparagraphs (f)(1)(A), (B), (C), and (D), and:
- (A) the total permitted emissions prior to the modification as stated in the permit conditions; or
 - (B) if there are no existing permit conditions that limit emissions, the average annual emissions which have occurred during the two-year period immediately preceding the date of the complete permit application for modification or other appropriate period determined by the Executive Officer to be representative of a permit unit's operation; or
 - (C) for modification of any source installed prior to October 8, 1976, resulting from the addition of air pollution controls installed solely to reduce the issuance of air contaminants, emission shall be calculated from permit conditions which directly limit the emissions or, when no such conditions are imposed, from:
 - (i) the maximum rated capacity; and
 - (ii) the maximum proposed daily hours of operation; and
 - (iii) the physical characteristics of the materials processed.
- (4) For the purpose of determining acute HI due to a new, relocated or modified permit unit pursuant to this rule, the total emissions from a permit unit shall be calculated on a maximum hourly basis from permit conditions which directly limit the emissions or, when no such conditions exist, from:
- (A) the maximum rated capacity;
 - (B) the maximum hourly emissions; and
 - (C) the physical characteristics of the materials processed.
- (5) De Minimus Values

Any permit unit with values at or below the screening levels as specified in the procedures for determining health risks under this rule, published pursuant to paragraph (e)(1), shall be deemed in compliance with the requirements of subdivision (d).

(g) Exemptions

(1) The requirements of subdivision (d) shall not apply to:

(A) Permit Renewal or Change of Ownership

Any permit unit which is in continuous operation, without modification or change in operating conditions, for which a new permit to operate is required solely because of permit renewal or change of ownership.

(B) Modification with No Increase in Risk

A modification of a permit unit that causes a reduction or no increase in the cancer burden, MICR or acute or chronic HI at any receptor location.

(C) Functionally Identical Replacement

A permit unit replacing a functionally identical permit unit, provided there is no increase in maximum rating or increase in emissions of any toxic air contaminants. For replacement of dry cleaning permit units only, provided there is no increase in any toxic air contaminants.

(D) Equipment Previously Exempt Under Rule 219

Equipment which previously did not require a written permit pursuant to Rule 219 that is no longer exempt, provided that the equipment was installed prior to the Rule 219 amendment eliminating the exemption and a complete application for the permit is received within one (1) year after the Rule 219 amendment removing the exemption.

(E) Modifications to Terminate Research Projects

Modifications restoring the previous permit conditions of a permit unit, provided that: the applicant demonstrates that the previous permit conditions were modified solely for the purpose of installing innovative control equipment as part of a demonstration or investigation designed to advance the state of the art with regard to controlling emissions of toxic air contaminants; the emission

reductions achieved by the demonstration project are not used for permitting any equipment with emission increases under the contemporaneous emission reduction exemption as specified in paragraph (g)(2); the demonstration project is completed within two (2) years; and a complete application is submitted no later than two (2) years after the date of issuance of the permit which modified the conditions of the previous permit for the purpose of the demonstration or investigation.

(F) Emergency Internal Combustion Engines

Emergency internal combustion engines that are exempted under Rule 1304.

(G) Wood Product Stripping

Wood product stripping permit units, provided that the risk increases due to emissions from the permit unit owned or operated by the applicant for which complete applications were submitted on or after July 10, 1998 will not exceed a MICR of 100 in one million (100×10^{-6}) or a total acute or chronic hazard index of five (5) at any receptor location. This exemption shall not apply to permit applications received after January 10, 2000, or sooner if the Executive Officer makes a determination that T-BACT is available to enable compliance with the requirements of paragraphs (d)(1), (d)(2) and (d)(3).

(H) Gasoline Transfer and Dispensing Facilities

For gasoline transfer and dispensing facilities, as defined in Rule 461 – Gasoline Transfer and Dispensing, the Executive Officer shall not, for the purposes of paragraphs (d)(1) through (d)(4), consider the risk contribution of methyl tert-butyl ether for any gasoline transfer and dispensing permit applications deemed complete on or before December 31, 2003. If the state of California extends the phase-out requirement for methyl tert-butyl ether as an oxygenate in gasoline, the limited time exemption shall be extended to that expiration date or December 31, 2004, whichever is sooner.

(2) Contemporaneous Risk Reduction

(A) Paragraph (d)(1) shall not apply if the applicant demonstrates that a contemporaneous risk reduction resulting in a decrease in emissions will occur such that both of the following conditions are met:

- (i) no receptor location will experience a total increase in MICR of greater than one in one million (1.0×10^{-6}) due to the cumulative impact of both the permit unit and the contemporaneous risk reduction; and
- (ii) the contemporaneous risk reduction occurs within 100 meters of the permit unit.

T-BACT shall be used on permit units exempted under this subparagraph if the MICR from the permit unit exceeds one in one million (1.0×10^{-6}).

- (B) The requirements of paragraphs (d)(2) and (d)(3) shall not apply if the applicant substantiates to the satisfaction of the Executive Officer that a contemporaneous risk reduction will occur such that any increase in individual substance acute or chronic HI from the permit unit exceeding 1.0 is mitigated with an equal or greater decrease in the same individual substance acute or chronic HI, respectively, from the contemporaneous risk reduction such that both of the following conditions are met:

- (i) no receptor location will experience an increase in total acute or chronic HI of more than 1.0 due to the cumulative impact of both the permit unit and the contemporaneous risk reduction; and
- (ii) the contemporaneous risk reduction occurs within 100 meters of the permit unit.

(3) Alternate Hazard Index Levels

The requirements of paragraphs (d)(2) and (d)(3) shall not apply if the applicant substantiates to the satisfaction of the Executive Officer that at all receptor locations and for every target organ system, the total chronic and acute HI level resulting from emissions from the new, modified or relocated permit unit owned or operated by the applicant for which applications were submitted on or after July 10, 1998 shall not exceed alternate HI levels which are determined by the Executive Officer in consultation with the Office of Environmental Health Hazard Assessment to be protective against adverse health effects. No alternate HI level shall exceed 10.

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
75-07-0	acetaldehyde	December 7, 1990	September 8, 1998	September 10, 2010
60-35-5	acetamide	January 8, 1999		
107-02-8	acrolein		June 15, 2001	August 13, 1999
79-06-1	acrylamide (or propenamide)	December 7, 1990	**	
79-10-7	acrylic acid		*	August 13, 1999
107-13-1	acrylonitrile (or vinyl cyanide)	December 7, 1990	May 3, 2002	
107-05-1	allyl chloride	January 8, 1999		
117-79-3	aminoanthraquinone, 2-	January 8, 1999		
7664-41-7	ammonia		August 18, 2000	August 13, 1999
62-53-3	aniline	January 8, 1999		
7440-38-2	arsenic and arsenic compounds (inorganic) including, but not limited to: arsenic compounds (inorganic)	December 7, 1990	June 15, 2001	August 13, 1999
7784-42-1	arsine		September 10, 2010	August 13, 1999
1332-21-4	asbestos	June 1, 1990		
71-43-2	benzene (including benzene from gasoline)	June 1, 1990	August 18, 2000	August 13, 1999
92-87-5	benzidine (and its salts)	December 7, 1990	**	
100-44-7	benzyl chloride	September 8, 1998	**	August 13, 1999
7440-41-7	beryllium and beryllium compounds	December 7, 1990	May 3, 2002	
111-44-4	bis(2-chloroethyl)ether (DCEE)	December 7, 1990		
117-81-7	bis(2-ethylhexyl)phthalate (DEHP)	September 8, 1998	**	

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
542-88-1	bis(chloromethyl)ether	December 7, 1990		
7789-30-2	bromine pentafluoride		*	
106-99-0	butadiene, 1,3-	December 7, 1990	June 15, 2001	{Date of Adoption}
7440-43-9	cadmium and cadmium compounds	June 1, 1990	June 15, 2001	
<u>105-60-2</u>	<u>caprolactum</u>		{Date of Adoption}	{Date of Adoption}
75-15-0	carbon disulfide		May 3, 2002	August 13, 1999
56-23-5	carbon tetrachloride (or tetrachloromethane)	June 1, 1990	June 15, 2001	August 13, 1999
<u>463-58-1</u>	<u>carbonyl sulfide</u>		{Date of Adoption}	{Date of Adoption}
7782-50-5	chlorine		August 18, 2000	August 13, 1999
10049-04-4	chlorine dioxide		June 15, 2001	
95-83-0	chloro-o-phenylenediamine, 4-	January 8, 1999		
95-69-2	chloro-o-toluidine, p-	January 8, 1999		
108-90-7	chlorobenzene		June 15, 2001	
	chlorofluorocarbons			
75-43-4	dichlorodifluoromethane (CFC-12)		*	
75-69-4	trichlorofluoromethane (CFC-11)		*	
76-13-1	trichlorotrifluoroethane (CFC-113)		*	
67-66-3	chloroform (trichloromethane)	December 7, 1990	August 18, 2000	August 13, 1999

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
108-39-4 95-48-7 106-44-5	cresol, m- cresol, o- cresol, p-		June 15, 2001 June 15, 2001 June 15, 2001	
135-20-6	cupferron	January 8, 1999		
924-16-3 621-64-7 55-18-5 62-75-9 10595-95-6	dialkylnitrosamines nitrosodi-n-butylamine, n- nitrosodi-n-propylamine, n- nitrosodiethylamine, n- nitrosodimethylamine, n- nitrosomethylethylamine, n-	December 7, 1990 September 8, 1998 December 7, 1990 December 7, 1990 September 8, 1998		
615-05-4	diaminoanisole, 2,4- (sulfate)	January 8, 1999		
95-80-7	diaminotoluene, 2,4-	January 8, 1999		
1746-01-6 40321-76-4 39227-28-6 57653-85-7 19408-74-3 35822-46-9 3268-87-9	dibenzo-p-dioxins (chlorinated) tetrachlorodibenzo-p-dioxin, 2,3,7,8- pentachlorodibenzo-p-dioxin, 1,2,3,7,8- hexachlorodibenzo-p-dioxin, 1,2,3,4,7,8- hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8- hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9- heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8- octachlorodibenzo-p-dioxin, 1,2,3,4, 5,6,7,8,9-	June 1, 1990 June 1, 1990 June 1, 1990 June 1, 1990 June 1, 1990 June 1, 1990 June 1, 1990	August 18, 2000 August 18, 2000 August 18, 2000 August 18, 2000 August 18, 2000 August 18, 2000 August 18, 2000	

TABLE I TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
41903-57-5	total tetrachlorodibenzo-p-dioxin	June 1, 1990	August 18, 2000	
36088-22-9	total pentachlorodibenzo-p-dioxin	June 1, 1990	August 18, 2000	
34465-46-8	total hexachlorodibenzo-p-dioxin	June 1, 1990	August 18, 2000	
37871-00-4	total heptachlorodibenzo-p-dioxin	June 1, 1990	August 18, 2000	
	total dioxins, with individual isomers reported	June 1, 1990	August 18, 2000	
	total dioxins, without individual isomers reported	June 1, 1990	August 18, 2000	
	dibenzofurans (chlorinated)			
51207-31- <u>95120-73-19</u>	tetrachlorodibenzofuran, 2,3,7,8-	June 1, 1990	August 18, 2000	
57117-41-6	pentachlorodibenzofuran, 1,2,3,7,8-	June 1, 1990	August 18, 2000	
57117-31-4	pentachlorodibenzofuran, 2,3,4,7,8-	June 1, 1990	August 18, 2000	
70648-26-9	hexachlorodibenzofuran, 1,2,3,4,7,8-	June 1, 1990	August 18, 2000	
57117-44-9	hexachlorodibenzofuran, 1,2,3,6,7,8-	June 1, 1990	August 18, 2000	
72918-21-9	hexachlorodibenzofuran, 1,2,3,7,8,9-	June 1, 1990	August 18, 2000	
60851-34-5	hexachlorodibenzofuran, 2,3,4,6,7,8-	June 1, 1990	August 18, 2000	
67562-39-4	heptachlorodibenzofuran, 1,2,3,4,6,7,8-	June 1, 1990	August 18, 2000	
55673-89-7	heptachlorodibenzofuran, 1,2,3,4,7,8,9-	June 1, 1990	August 18, 2000	
39001-02-0	octachlorodibenzofuran, 1,2,3,4,5,6,7,8	June 1, 1990	August 18, 2000	
55722-27-5	total tetrachlorodibenzofuran	June 1, 1990	August 18, 2000	

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
30402-15-4	total pentachlorodibenzofuran	June 1, 1990	August 18, 2000	
55684-94-1	total hexachlorodibenzofuran	June 1, 1990	August 18, 2000	
38998-75-3	total heptachlorodibenzofuran	June 1, 1990	August 18, 2000	
96-12-8	dibromo-3-chloropropane, 1,2- (DBCP)	September 8, 1998	**	
106-46-7	dichlorobenzene, 1,4- (or p-dichlorobenzene)	September 8, 1998	June 15, 2001	
91-94-1	dichlorobenzidine, 3,3	December 7, 1990		
75-34-3	dichloroethane, 1,1-	January 8, 1999		
75-35-4	dichloroethylene, 1,1- (<u>see vinylidene chloride</u>)		June 15, 2001	
9901 (emittant ID)	diesel PM – diesel particulate matter from diesel-fueled internal combustion engine exhaust	March 7, 2008	March 7, 2008	
111-42-2	diethanolamine		May 3, 2002	
60-11-7	dimethylaminoazobenzene, p-	January 8, 1999		
68-12-2	dimethylformamide (N,N-)		June 15, 2001	
121-14-2	dinitrotoluene, 2,4-	December 7, 1990		
123-91-1	dioxane, 1,4- (or 1,4-diethylene dioxide)	December 7, 1990	August 18, 2000	August 13, 1999
106-89-8	epichlorohydrin (or 1-chloro-2,3-epoxypropane)	December 7, 1990	June 15, 2001	August 13, 1999
106-88-7	epoxybutane, 1,2-		June 15, 2001	
140-88-5	ethyl acrylate		*	
100-41-4	ethyl benzene	June 5, 2009	August 18, 2000	

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
75-00-3	ethyl chloride (or chloroethane)		August 18, 2000	
106-93-4	ethylene dibromide (or 1,2-dibromoethane)	June 1, 1990	May 3, 2002	
107-06-2	ethylene dichloride (or 1,2-dichloroethane)	June 1, 1990	June 15, 2001	
75-21-8	ethylene oxide (or 1,2-epoxyethane)	June 1, 1990	June 15, 2001	
96-45-7	ethylene thiourea	January 8, 1999		
1101	Fluorides (except hydrogen fluoride, listed separately below)		September 10, 2010	<u>August 13, 1999</u>
50-00-0	formaldehyde	December 7, 1990	August 18, 2000	August 13, 1999
	gasoline vapors		*	
111-30-8	glutaraldehyde		June 15, 2001	
	glycol ethers (and their acetates)			
107-21-1	ethylene glycol		August 18, 2000	
111-76-2	ethylene glycol butyl ether		*	August 13, 1999
110-80-5	ethylene glycol ethyl ether		August 18, 2000	February 10, 1999
111-15-9	ethylene glycol ethyl ether acetate		August 18, 2000	August 13, 1999
109-86-4	ethylene glycol methyl ether		August 18, 2000	August 13, 1999
110-49-6	ethylene glycol methyl ether acetate		August 18, 2000	
118-74-1	hexachlorobenzene	December 7, 1990	**	

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
608-73-1	hexachlorocyclohexanes (mixed or technical grade)	December 7, 1990	**	
<u>319-85-6</u>	hexachlorocyclohexane, alpha	<u>September 8, 1998</u>		
<u>319-85-7</u>	hexachlorocyclohexane, beta	<u>September 8, 1998</u>		
58-89-9	hexachlorocyclohexane, gamma- (lindane)	September 8, 1998	**	
77-47-4	hexachlorocyclopentadiene		*	
110-54-3	hexane		August 18, 2000	
302-01-2	hydrazine	September 8, 1998	June 15, 2001	
122-66-7	hydrazobenzene (or 1,2-diphenylhydrazine)	December 7, 1990		
7647-01-0	hydrochloric acid (or hydrogen chloride)		August 18, 2000	August 13, 1999
7664-39-3	hydrofluoric acid (or hydrogen fluoride)		September 10, 2010	August 13, 1999
10035-10-6	hydrogen bromide (HBR)		*	
74-90-8	hydrogen cyanide		August 18, 2000	August 13, 1999
7783-06-4	hydrogen sulfide		August 18, 2000	February 10, 1999
7783-07-5	hydrogen selenide			August 13, 1999
	isocyanates			
624-83-9	methyl isocyanate		May 3, 2002	
78-59-1	isophrone		May 3, 2002	
67-63-0	isopropyl alcohol		August 18, 2000	August 13, 1999

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
7439-92-1	lead and lead compounds (inorganic, including elemental lead) including, but not limited to: lead compounds (inorganic) lead acetate lead chromate lead phosphate lead subacetate	September 8, 1998	**	
301-04-2		September 8, 1998	**	
7758-97-6		September 8, 1998	**	
7446-27-7		September 8, 1998	**	
1335-32-6		September 8, 1998	**	
		lead compounds (other than inorganic)	September 8, 1998	**
108-31-6	maleic anhydride		May 3, 2002	
7439-96-5	manganese and manganese compounds		August 18, 2000	
7439-97-6	mercury and mercury compounds (inorganic) including, but not limited to: mercuric chloride methyl mercury		August 18, 2000	August 13, 1999
7487-94-7			August 18, 2000	
593-74-8			August 18, 2000	
67-56-1	methanol (methyl alcohol)		August 18, 2000	August 13, 1999
74-83-9	methyl bromide (or bromomethane)		August 18, 2000	August 13, 1999
71-55-6	methyl chloroform (or 1,1,1-trichloroethane)		August 18, 2000	August 13, 1999
78-93-3	methyl ethyl ketone		*	August 13, 1999
80-62-6	methyl methacrylate		*	

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
1634-04-4	methyl tert-butyl ether	May 2, 2003	August 18, 2000	
101-14-4	methylene bis(2-chloroaniline), 4,4- (MOCA)	January 8, 1999		
75-09-2	methylene chloride (or dichloromethane)	June 1, 1990	August 18, 2000	August 13, 1999
101-77-9	methylene dianiline, 4,4'- (and its dichloride)	September 8, 1998	May 3, 2002	
101-68-8	methylene diphenyl diisocyanate		June 15, 2001	{Date of Adoption}
1135	mineral fibers (other than man-made)		*	
90-94-8	michler's ketone	January 8, 1999		
7440-02-0	nickel and nickel compounds: including, but not limited to:	March 12, 1999	August 18, 2000	August 13, 1999
373-02-4	nickel acetate	March 12, 1999	August 18, 2000	August 13, 1999
3333-67-3	nickel carbonate	March 12, 1999	August 18, 2000	August 13, 1999
13463-39-3	nickel carbonyl	March 12, 1999	August 18, 2000	August 13, 1999
12054-48-7	nickel hydroxide	March 12, 1999	August 18, 2000	August 13, 1999
1313-99-1	nickel oxide	March 12, 1999	August 18, 2000	August 13, 1999
12035-72-2	nickel subsulfide	December 7, 1990	August 18, 2000	August 13, 1999
1271-28-9	nickelocene	March 12, 1999	August 18, 2000	August 13, 1999
	refinery dust from the pyrometallurgical process	December 7, 1990	August 18, 2000	August 13, 1999
7697-37-2	nitric acid		*	August 13, 1999
98-95-3	nitrobenzene		*	
79-46-9	nitropropane, 2-		*	

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
759-73-9	nitroso-n-ethylurea, n-	December 7, 1990		
684-93-5	nitroso-n-methylurea, n-	December 7, 1990		
86-30-6	nitrosodiphenylamine, n-	December 7, 1990		
156-10-5	nitrosodiphenylamine, p-	September 8, 1998		
59-89-2	nitrosomorpholine, n-	January 8, 1999		
100-75-4	nitrosopiperidine, n-	January 8, 1999		
930-55-2	nitrosopyrrolidine, n-	December 7, 1990		
108171-26-2	paraffins, chlorinated (average chain length, c12; approx. 60% cl by weight)	January 8, 1999		
127-18-4	perchloroethylene (or tetrachloroethylene)	September 8, 1998	September 8, 1998	August 13, 1999
108-95-2	phenol		August 18, 2000	August 13, 1999
75-44-5	phosgene		*	August 13, 1999
7723-14-0	phosphorus and phosphorus compounds phosphine		*	
7803-51-2			February 7, 2003	
7664-38-2	phosphoric acid		August 18, 2000	
85-44-9	phthalic anhydride		June 15, 2001	
1336-36-3	polychlorinated biphenyls (PCBs) 3,3',4,4' Tetrachlorobiphenyl 3,4,4',5 Tetrachlorobiphenyl 2,3,3',4,4' Pentachlorobiphenyl 2,3,4,4',5 Pentachlorobiphenyl	December 7, 1990	**	
<u>32598-13-3</u>		March 4, 2005***	March 4, 2005***	
<u>70362-50-4</u>		March 4, 2005***	March 4, 2005***	
<u>32598-14-4</u>		March 4, 2005***	March 4, 2005***	
<u>74472-37-0</u>		March 4, 2005***	March 4, 2005***	

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
<u>31508-00-6</u>	2,3',4,4',5 Pentachlorobiphenyl	March 4, 2005***	March 4, 2005***	
<u>65510-44-3</u>	2',3,4,4',5 Pentachlorobiphenyl	March 4, 2005***	March 4, 2005***	
<u>57465-28-8</u>	3,3',4,4',5 Pentachlorobiphenyl	March 4, 2005***	March 4, 2005***	
<u>38380-08-4</u>	2,3,3',4,4',5 Hexachlorobiphenyl	March 4, 2005***	March 4, 2005***	
<u>69782-90-7</u>	2,3,3',4,4',5' Hexachlorobiphenyl	March 4, 2005***	March 4, 2005***	
<u>52663-72-6</u>	2,3',4,4',5.5' Hexachlorobiphenyl	March 4, 2005***	March 4, 2005***	
<u>32774-16-6</u>	3,3',4,4',5,5' Hexachlorobiphenyl	March 4, 2005***	March 4, 2005***	
<u>39635-31-9</u>	2,3,3'4,4',5,5' Heptachlorobiphenyl	March 4, 2005***	March 4, 2005***	
	polycyclic aromatic hydrocarbons (PAHs)			
56-55-3	benz[a]anthracene	December 7, 1990		
50-32-8	benzo[a]pyrene	December 7, 1990		
205-99-2	benzo[b]fluoranthene	December 7, 1990		
205-82-3	benzo[j]fluoranthene	January 8, 1999		
207-08-9	benzo[k]fluoranthene	December 7, 1990		
218-01-9	chrysene	December 7, 1990		
226-36-8	dibenz[a,h]acridine	January 8, 1999		
224-42-0	dibenz[a,j]acridine	January 8, 1999		
53-70-3	dibenz[a,h]anthracene	December 7, 1990		
192-65-4	dibenzo[a,e]pyrene	January 8, 1999		
189-64-0	dibenzo[a,h]pyrene	January 8, 1999		
189-55-9	dibenzo[a,i]pyrene	January 8, 1999		

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
191-30-0	dibenzo[a,l]pyrene	January 8, 1999		
194-59-2	dibenzo[c,g]carbazole, 7h-	January 8, 1999		
57-97-6	dimethylbenz[a]anthracene, 7,12-	January 8, 1999		
42397-64-8	dinitropyrene, 1,6-	January 8, 1999		
42397-65-9	dinitropyrene, 1,8-	January 8, 1999		
193-39-5	indeno[1,2,3-cd]pyrene	December 7, 1990		
56-49-5	methylcholanthrene, 3-	January 8, 1999		
3697-24-3	methylchrysene, 5-	January 8, 1999		
91-20-3	naphthalene	March 4, 2005***	August 18, 2000	
602-87-9	nitroacenaphthene, 5-	January 8, 1999		
7496-02-8	nitrochrysene, 6-	January 8, 1999		
607-57-8	nitrofluorene, 2-	January 8, 1999		
5522-43-0	nitropyrene, 1-	January 8, 1999		
57835-92-4	nitropyrene, 4-	January 8, 1999		
<u>1150/1151</u>	polycyclic aromatic hydrocarbons (PAHs), total	September 8, 1998		
7758-01-2	potassium bromate	January 8, 1999		
1120-71-4	propane sultone, 1,3-	January 8, 1999		
115-07-1	propylene		August 18, 2000	
107-98-2	propylene glycol methyl ether		August 18, 2000	
75-56-9	propylene oxide (or 1,2-epoxy propane)	September 8, 1998	February 23, 2000	August 13, 1999

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
7782-49-2	selenium and selenium compounds other than hydrogen selenide		May 3, 2002	
1310-73-2	sodium hydroxide		*	August 13, 1999
100-42-5	styrene (or vinyl benzene)		August 18, 2000	August 13, 1999
7664-93-9	sulfuric acid (and oleum)		May 3, 2002	August 13, 1999
79-34-5	tetrachloroethane, 1,1,2,2-	January 8, 1999		
62-55-5	thioacetamide	January 8, 1999		
108-88-3	toluene (or methyl benzene)		August 18, 2000	August 13, 1999
584-84-9	toluene diisocyanates toluene-2,4-diisocyanate	September 8, 1998	June 15, 2001	<u>{Date of Adoption}</u>
91-08-7	toluene-2,6-diisocyanate	September 8, 1998	June 15, 2001	<u>{Date of Adoption}</u>
79-00-5	trichloroethane, 1,1,2-	January 8, 1999		
79-01-6	trichloroethylene	December 7, 1990	August 18, 2000	
121-44-8	triethylamine		February 7, 2003	August 13, 1999
51-79-6	urethane (or ethyl carbamate)	September 8, 1998		
<u>7440-62-2</u>	<u>vanadium (fume or dust)</u>			<u>August 13, 1999</u>
1314-62-1	vanadium pentoxide			August 13, 1999
108-05-4	vinyl acetate		May 3, 2002	
75-01-4	vinyl chloride (or chloroethylene)	December 7, 1990	**	August 13, 1999
75-35-4	vinylidene chloride (<u>dichloroethylene, 1,1-</u>)		<u>June 15, 2001</u> *	
1330-20-7	xylenes (isomers and mixture)		August 18, 2000	August 13, 1999

TABLE I				
TOXIC AIR CONTAMINANTS				
CAS #	SUBSTANCE	EFFECTIVE DATE CANCER	EFFECTIVE DATE CHRONIC	EFFECTIVE DATE ACUTE
108-38-3	xylene, m-		August 18, 2000	August 13, 1999
95-47-6	xylene, o-		August 18, 2000	August 13, 1999
106-42-3	xylene, p-		August 18, 2000	August 13, 1999
7440-66-6	zinc and zinc compounds		*	
	including, but not limited to:			
1314-13-2	zinc oxide		*	

* Compounds not classified as carcinogenic, but have chronic risk values proposed by OEHHA that have not yet been finalized. The effective date is the date the Scientific Review Panel approves the chronic risk value.

** Compounds are classified as carcinogenic, but have chronic risk values proposed by OEHHA that have not yet been finalized. The effective date for use of chronic risk values is the date the Scientific Review Panel approves the chronic risk value.

*** Effective date for these risk values will be March 4, 2005 or the date of implementation of the applicable most recent version of Risk Assessment Procedures for Rules 1401, 1401.1 and 212, whichever is later.

TABLE II	
TOXIC AIR CONTAMINANTS WITH PROPOSED RISK VALUES	
CAS #	SUBSTANCE
79-10-7	acrylic acid
107-05-1	allyl chloride
7783-20-2	ammonium sulfate
62-53-3	Aniline
1309-64-4	antimony trioxide
	arsenic compounds (other than inorganic)
532-27-4	chloroacetophenone, 2-
75-45-6	chlorodifluoromethane (HCFC-22)
7440-48-4	cobalt and cobalt compounds
74-85-1	Ethylene
96-45-7	ethylene thiourea
	fluorides and fluoride compounds
87-68-3	hexachlorobutadiene
67-72-1	hexachloroethane
822-06-0	hexamethylene-1,6-diisocyanate
78-93-3	methyl ethyl ketone (or 2-butanone)
7697-37-2	nitric acid
156-10-5	nitrosodiphenylamine, p-
7440-22-4	silver and silver compounds
96-09-3	styrene oxide
79-00-5	trichloroethane, 1,1,2-
593-60-2	vinyl bromide

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1401 – New Source Review of Toxic Air Contaminants

September 2017

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BACKGROUND

Rule 1401 – New Source Review of Toxic Air Contaminants (Rule 1401) was adopted in June 1990 and establishes health risk thresholds for new or modified permitted equipment or processes. Under Rule 1401, the health risk assessment conducted for new or modified permit units must not exceed a maximum individual cancer risk of one in one million, a cancer burden of 0.5, a chronic hazard index of one, and an acute hazard index of one. The methodology used to estimate health risks for SCAQMD’s toxic regulatory program, including Rule 1401, is based on guidance from the Office of Environmental ~~Human~~–Health Hazard Assessment (OEHHA). OEHHA’s Risk Assessment Guidelines are incorporated in the South Coast Air Quality Management District’s (SCAQMD) Risk Assessment Procedures, which are required for implementing Rules 1401, 1401.1 and 212. The current version of the SCAQMD Risk Assessment Procedures is Version 8.0.

In March 2015, OEHHA revised its Risk Assessment Guidelines¹ (2015 OEHHA Guidelines) to incorporate requirements from the Children’s Health Protection Act of 1999 (SB 25) which included the addition of child specific factors that increased the estimated cancer risk for long-term exposures for residential and sensitive receptors. The result is an increase in the estimated cancer risk of about 2.3 times, and higher for certain toxic air contaminants that have multiple exposure pathways such as inhalation, ingestion, and dermal. The 2015 OEHHA Guidelines do not change the toxic emission reductions already achieved by facilities in the South Coast Air Basin (Basin). The 2015 OEHHA Guidelines represent a change in the methodologies and calculations used to estimate health risk based on the most recent scientific data on exposure, childhood sensitivity, and breathing rates.

At the June 5, 2015 meeting, the SCAQMD Governing Board adopted amendments to Rule 1401 and incorporated the 2015 OEHHA Guidelines into SCAQMD’s Risk Assessment Procedures (Version 8.0)². SCAQMD staff evaluated permits received between October 1, 2009 and October 1, 2014 and found that most sources would not be required to install new or additional pollution controls as a result of the 2015 OEHHA Guidelines. The SCAQMD staff had concluded that based on an initial screening in June 2015, that some spray booths may have difficulties meeting the Rule 1401 risk thresholds using the 2015 OEHHA Guidelines so additional analysis was needed to better understand potential permitting impacts for spray booths. In addition, time was also needed to better assess and understand the impacts from gasoline dispensing facilities before use of the 2015 OEHHA Guidelines, and updates to emission factors and speciation profiles for gasoline dispensing facilities that the California Air Resources Board (CARB) was recommending. Therefore, provisions were included in the June 2015 amendment to Rule 1401³ to allow spray

¹ Available on the internet at <https://oehha.ca.gov/air/crnrr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>

² SCAQMD’s Risk Assessment Procedures for Rules 1401 and 212 (Version 8.0) can be found here: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/riskassprocjune15.pdf> and Attachment M can be found here: <http://www.aqmd.gov/docs/default-source/permitting/attachment-m.pdf>.

³ SCAQMD’s June 2015 Staff Report for Proposed Amended Rules 212 – Standards for Approving Permits and Issuing Public Notice, 1401 – New Source Review of Toxic Air Contaminants, 1401.1 – Requirements for New and Relocated Facilities Near Schools, and 1402 – Control of Toxic Air Contaminants from Existing Sources,” can be found here: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-jun1-028.pdf?sfvrsn=9>

booths and retail gasoline transfer and dispensing facilities to continue to use the then current SCAQMD Risk Assessment Procedures (Version 7.0)⁴ to calculate the cancer risk until SCAQMD staff returns to the Board with specific regulations and/or procedures for these industries.

Staff has since completed the review of analyzing potential permitting impacts for spray booths and gasoline dispensing facilities. The results of the analysis is presented below under the section Proposed Amendments to Rule 1401. As discussed later in this staff report, implementation of the 2015 OEHHA Guidelines are expected to have minimal impacts to new or modified spray booth or gasoline dispensing facilities. As a result, Proposed Amended Rule 1401 will require these two source categories to begin using the SCAQMD's Risk Assessment Procedures (Version 8.1) which incorporates the 2015 OEHHA Guidelines for spray booths and gasoline dispensing facilities, revised emission factors and speciation profiles for gasoline dispensing facilities, and updated meteorological data. Currently, the SCAQMD's Risk Assessment Procedures (Version 8.0) requires all other permitted sources to use the 2015 OEHHA Guidelines and no changes except for updated screening tables using updated meteorological data are proposed for those sources.

PUBLIC PROCESS AND OUTREACH EFFORTS

Development of Proposed Amend Rule 1401 (PAR 1401) is being conducted through a public process. SCAQMD staff held ~~three-four~~ working group meetings at SCAQMD Headquarters in Diamond Bar on June 1, 2017, July 6, 2017, ~~and~~ July 20, 2017, and August 16, 2017. Based on Board Member comments at the Stationary Source Committee on July 21, 2017, staff held the fourth Working Group Meeting on August 16th to allow CARB to present their current view on the refueling emission factor for gasoline dispensing facilities, as this was a key issue for some stakeholders. The Working Group is composed of representatives from businesses, environmental groups, public agencies, and consultants. The purpose of the working group meetings are to discuss proposed concepts and to work through the details of staff's proposal. A Public Workshop was held on July 12, 2017.

PROPOSED AMENDMENTS TO RULE 1401

Currently, Rule 1401 allows the use of the previous SCAQMD Risk Assessment Procedures (Version 7.0) when determining risk for new and modified spray booths (e)(3)(A) and gasoline dispensing facilities (e)(3)(B). PAR 1401 will remove those provisions and instead require the use of the proposed SCAQMD Risk Assessment Procedures (Version 8.1) for all new and modified permitted equipment and processes. Version 8.1 of SCAQMD's Risk Assessment Procedures will replace Version 8.0 to reflect updates to emission factors for gasoline dispensing facilities, gasoline speciation profiles and meteorological data. Additionally, PAR 1401 will update the list of toxic air contaminants subject to the rule.

SPRAY BOOTHS

While previously issued permits are not subject to the proposed amendments to Rule 1401, they were used to predict potential impacts. To determine if the 2015 OEHHA Guidelines would impact future spray booth permits, the maximum individual cancer risk calculated in the previous permit

⁴ SCAQMD's Risk Assessment Procedures for Rules 1401, 1401.1 and 212 (Version 7.0) can be found here: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/risk-assessment-procedures-v-7.pdf> and Attachment L can be found here: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/attachment-l.pdf>.

evaluation was multiplied by 2.3 if the materials driving cancer risk had no multipathway factor (including most volatile organic compounds) or multiplied by six if the material driving cancer risk had a multipathway factor (including most toxic metals). The increase in the estimated cancer risk for a residential receptor is 2.3 times higher with the 2015 OEHHA Guidelines. If the receptor is a worker there is generally no change in the estimated health risk. As a conservative approach, it is assumed that these permits had a residential receptor.

If the risk remained below the Rule 1401 risk thresholds of either 1 in-one-million without Best Available Control Technology for Toxics (T-BACT), or 10 in one million with T-BACT, then there would be no additional pollution controls required, and no permitting impact. If the calculated risk was higher than Rule 1401 thresholds, then it was deemed that a similar future spray booth permit could potentially be impacted. The objectives of the analysis were to answer the questions if spray booths were permitted with estimated health risks reflecting the 2015 OEHHA Guidelines: (1) would future spray booths that were not required to install pollution controls, potentially need to install pollution controls; or (2) would future spray booths that were required to install pollution controls, potentially need to upgrade pollution controls.

Analysis of Spray Booths

Staff evaluated spray booth permits issued from October 1, 2009 through October 1, 2014. Over the five-year permitting period, SCAQMD staff processed approximately 1,400 new or modified permits for spray booths. Out of the 1,400 spray booth permits, staff conducted a detailed review of a subset of 327 permits, which were randomly chosen. This sample size was selected to provide a 95 percent confidence level and a 5 percent margin of error in the analysis. Staff reviewed permit applications to better understand:

- Industry type and applicable coating rule(s);
- Compound(s) driving the carcinogenic risk; and
- Maximum individual cancer risk

Out of the 327 permits reviewed, automotive finishing accounted for almost one third of the applications. Wood coatings and other coatings each contributed to 23 percent of the applications, followed by metal coatings and aerospace coatings. Overall, the distribution of the industry type was very similar between the subset of reviewed permits and all the spray booth permits issued over the five-year period, indicating that the universe of spray booth application was well represented by the subset sample as indicated by Figure 1 below.

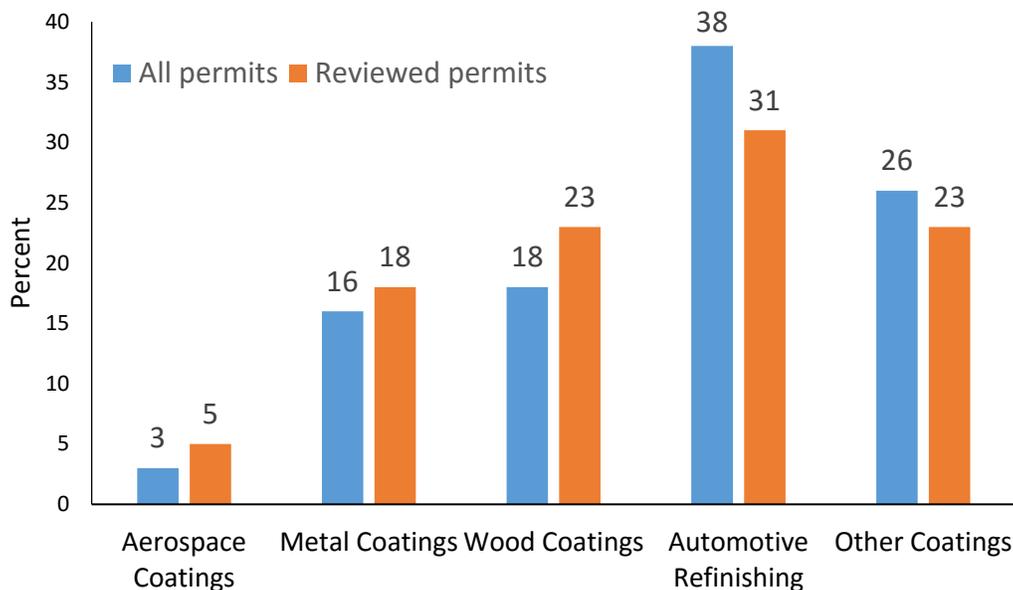


Figure 1: Industry Type Breakdown of Spray Booth Permit Applications

The spray booths can be categorized into two groups: with or without T-BACT. Figure 2 provides an overview of the potential impacts of the 2015 OEHHA Guidelines on spray booths. Majority of the spray booths (277 of 327) are not equipped with T-BACT, while 50 of the 327 spray booths are equipped with T-BACT. More details about the potential impacts on the two types of spray booths are discussed below.

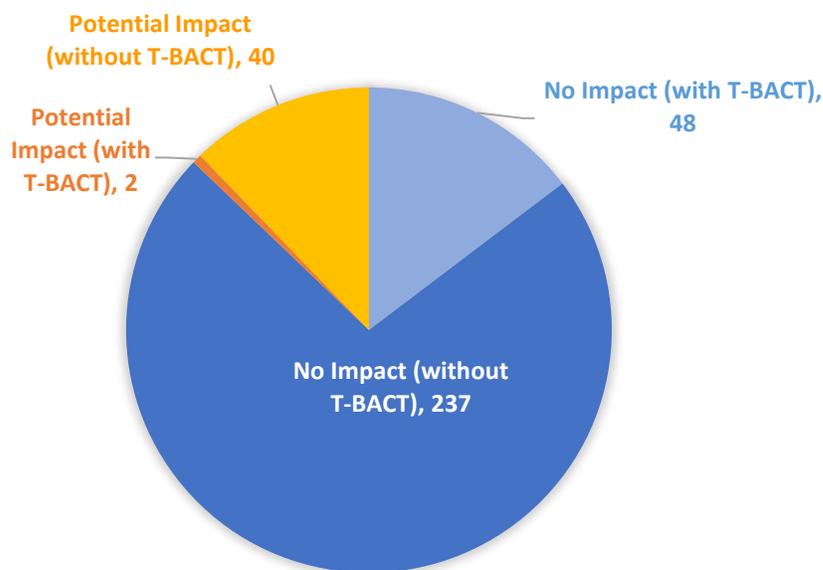


Figure 2: Potential Impacts of 2015 OEHHA Guidelines on Spray Booths

Impacts on Spray Booth Applications with T-BACT

Of the 327 permits reviewed, 50 were permitted with T-BACT. Of those 50 permits with T-BACT, 48 spray booths would have an estimated cancer risk that remained below the threshold of 10 in one million with the application of the 2015 OEHHA Guidelines. Among these spray booths, most of them use coatings containing hexavalent chromium or other metals. Thus, if 48 similar spray booths were permitted in the future using the proposed SCAQMD Risk Assessment Procedures (Version 8.1) that incorporates the 2015 OEHHA Guidelines, no additional pollution controls are expected.

Two spray booths had an estimated cancer risk above 10 in one million with the use of the 2015 OEHHA Guidelines. These two spray booths use aerospace coatings containing hexavalent chromium, and were permitted with high efficiency particulate air (HEPA) filters with an efficiency of 99.999 percent, which satisfies the T-BACT requirement. The permitted cancer risk was kept below 10 in a million with limits on the maximum allowable usage of hexavalent chromium and ethyl benzene. If these two spray booths were permitted using the proposed SCAQMD Risk Assessment Procedures (Version 8.1) which incorporates the 2015 OEHHA Guidelines, the cancer risk would exceed the threshold of 10 in one million assuming the same throughput and emission control technology (HEPA filters) are used. Thus, a new spray booth application with the same operating conditions as these two spray booths would have to either reduce their throughput or use a more effective control technology. An ultra-low penetration air (ULPA) filter provides a removal efficiency of 99.9999 percent or better, and is commercially available with a comparable cost as the HEPA filter. With the use of an ULPA filter, throughput would not need to be reduced. Nonetheless, a filter with a higher efficiency will likely increase the pressure drop across the filter. Depending on the design of the air system, a stronger fan/blower might be needed to accommodate a more efficient filter.

Impacts on Spray Booth Applications without T-BACT

Of the 327 permits reviewed, 277 are permitted without T-BACT. Staff estimates that with the application of the 2015 OEHHA Guidelines the estimated cancer risk for 237 (86 percent) permitted spray booths would remain below a health risk of 1 in one million so no further action, such as the addition of pollution controls or changes to the type or amount of materials identified in the permit, would be expected. These types of permit applications would not be impacted by incorporating the 2015 OEHHA Guidelines in the proposed SCAQMD Risk Assessment Procedures (Version 8.1) because the coatings applied have low or no toxics content.

Of the 277 spray booths without T-BACT, 40 spray booths (14 percent) exceeded the cancer risk threshold of 1 in one million when the 2015 OEHHA Guidelines were applied. An in-depth analysis was conducted on the permits issued for these 40 spray booths to better understand the volume and the content of toxic air contaminants in the coatings used. Four spray booths were found to be no longer in service and are not included in the analysis below, leaving 36 permits for spray booths analyzed. Staff collected safety data sheets, usage records, contacted coating suppliers, or conducted site visits to examine the potential impact of the 2015 OEHHA Guidelines.

Among the 36 spray booths that are in operation, ethyl benzene was the most prevalent toxic air contaminant used in coatings with 72 percent of the permits for spray booths use coatings with ethyl benzene. Formaldehyde is the next most common toxic air contaminant used in coatings,

representing 8 percent of the permits for spray booths. For the other permits, the formulations had multiple toxic air contaminants, including ethyl benzene and formaldehyde (8 percent), ethyl benzene and nickel (6 percent), as well as ethyl benzene and others (6 percent).

As discussed in more detail below, the 36 permits for spray booths are not expected to be impacted by the 2015 OEHHA Guidelines because the facilities are either no longer using toxic air contaminants, the actual usage of materials containing toxic air contaminants is much lower than permitted levels, or the amount of toxic air contaminants assumed in the permit is higher than the actual amount in the material used. The results of the in-depth analysis is illustrated in Figure 3 below.

Permitted Spray Booths Without T-BACT – Use of Materials With Toxic Air Contaminants

Based on interviews with owner or operators with permitted spray booths, staff found that for 10 of the 36 permits for spray booths, the owner or operator switched coatings and are currently using coatings that do not contain toxic air contaminants. In some cases, the facility had opted to utilize a new coating while in the remaining cases, the coating had been reformulated. Reformulated coatings typically replace the mineral spirits that contains trace quantities of ethyl benzene with a hydrotreated petroleum distillate that performs the same function but does not contain ethyl benzene. Thus, it is expected that a considerable fraction of owners or operators that are applying for future permits for spray booths will be selecting coatings that do not contain toxic air contaminants as coatings that do not contain toxic air contaminants are available. It is assumed that for the 10 permitted spray booths that originally were using coatings with toxic air contaminants, that in the future these permit applications would not be impacted by incorporating the 2015 OEHHA Guidelines in the proposed SCAQMD Risk Assessment Procedures (Version 8.1) because operators are already making the decision to use coatings that do not contain toxic air contaminants.

Permitted Spray Booths Without T-BACT – Actual Material Usage

Based on interviews and site visits with owner and operators, staff found that the permitted usage of coatings was considerably higher than the actual usage in 16 of 36 permits for spray booths reviewed (25 percent). In many cases, the facility is given a maximum allowable limit on the number of gallons for the overall use and a maximum allowable limit on the number of gallons that can be used that contain a toxic air contaminant. Because the spray booths use multiple coatings within the same booth and most coatings do not contain a toxic air contaminant, the facility may use close to their overall use limit but not approach their limit for coatings that contain toxic air contaminants. Because their actual usage is considerably lower than their maximum allowable usage limit for specific coatings with toxic air contaminants, a lower permitted usage for specific coatings with toxic air contaminants will not impact their operations. By establishing maximum usage limits for coatings with toxic air contaminants that are closer to anticipated actual usage, it is expected that for the 16 permitted spray booths that in the future these permit applications would not be impacted by incorporating the 2015 OEHHA Guidelines in the proposed SCAQMD Risk Assessment Procedures (Version 8.1) because operators can accept a lower permitted usage limit for materials with toxic air contaminants.

Permitted Spray Booths Without T-BACT – Toxic Air Contaminant Content in Safety Data Sheet

Based on interviews with owner or operators and coating formulators, staff found that for 10 of the spray booths, the Safety Data Sheet had overstated the quantity of toxic air contaminants in their coatings. Safety Data Sheets list the range (in percent by weight) of toxic air contaminants present in the coating formulation. In many cases the formulated coating lists the ethyl benzene content as between 0.5 and 5 percent. However, based on discussions with the coating formulator, the actual ethyl benzene content for the formulated product is actually between 0.2 and 2.5 percent. If these spray booths were to apply for new permits under the proposed SCAQMD Risk Assessment Procedures (Version 8.1), they might consider migrating to reformulated coatings / new coatings with lower or no ethyl benzene content. Alternatively, manufacturers might update the Safety Data Sheet to provide a more accurate estimate with products using ethyl benzene. By either using a more accurate percentage of toxic air contaminant in the coating formulation or using a coating with lower or no ethyl benzene, it is expected that for the 10 permitted spray booths that in the future these permit applications would not be impacted by incorporating the 2015 OEHHA Guidelines in the proposed SCAQMD Risk Assessment Procedures (Version 8.1).

Summary of Spray Booth Analysis

Based on the detailed review of 327 spray booth permit applications, the implementation of the 2015 OEHHA Guidelines in the proposed SCAQMD Risk Assessment Procedures (Version 8.1) will result in no impact for 99 percent of spray booth permits. Figure 3 below summarizes staff's findings for spray booths that were permitted without T-BACT. For spray booths that were permitted without T-BACT, it is expected that in the future permit applicants will either select a coating with no toxic air contaminants, use products that provide more accurate estimates of toxic air contaminants in the Safety Data Sheet, or accept a lower usage limit for coatings that contain toxic air contaminants rather than install T-BACT.

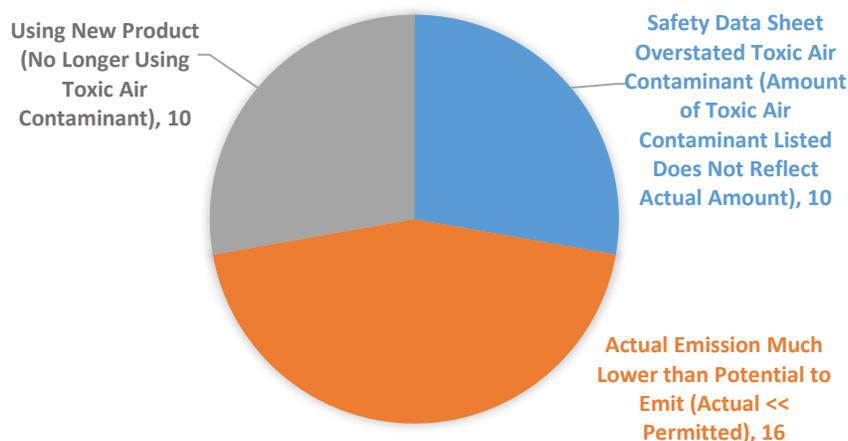


Figure 3: Summary Findings for 36 Spray Booths without T-BACT

Table 1 provides a summary findings for spray booths. Approximately 1 percent (two of the 327) of spray booth permits may need to use a high efficiency filter media such as ULPA filters, or consider reducing their throughput if the 2015 OEHHA Guidelines are utilized. For facilities that were permitted without T-BACT, it is expected that no additional pollution controls would be

needed using the 2015 OEHHA Guidelines. Therefore, with a 95 percent confidence level, it is expected that approximately 1 percent of new spray booth permit applications will require additional pollution control equipment if the 2015 OEHHA Guidelines are utilized. With SCAQMD receiving, on average, 280 spray booth permit applications annually, approximately two spray booth permits annually could require higher level of air pollution controls. The expected additional air pollution control would be the replacement of HEPA filters with ULPA filters. It is concluded that the impact of the 2015 OEHHA Guidelines are minimal on spray booth permits. Therefore, staff recommends removing the exemption and referencing the proposed SCAQMD Risk Assessment Procedures (Version 8.1) for spray booths.

Table 1: Summary Findings for Spray Booths with T-BACT

Area of Analysis	Number of Permits	Will T-BACT or Upgrades to T-BACT be Needed?
Total number of spray booths reviewed	327	
Spray booths without T-BACT where the cancer risk with the 2015 OEHHA Guidelines would be: <ul style="list-style-type: none"> • ≤ 1 in one million after initial review • ≤ 1 in one million after in-depth review <ul style="list-style-type: none"> ○ Use of materials with toxic air contaminants ○ Actual material usage ○ Toxic air contaminant content in Safety Data Sheet ○ No longer in operation 	237	
Spray booths with T-BACT where the cancer risk with the 2015 OEHHA Guidelines would be: <ul style="list-style-type: none"> • ≤ 10 in one million • >10 in one million 	48 2	No Yes
Percent of spray booth permits that will need T-BACT or upgrades to T-BACT controls out of 327 permits reviewed	0.6%	

GASOLINE DISPENSING FACILITIES

In the amendments to Rule 1401 in June 2015, SCAQMD staff recommended that retail gasoline transfer and dispensing facilities continue to use the then current SCAQMD Risk Assessment Procedures (Version 7.0) because additional time was needed to better assess the potential impacts of the revised speciation profile that the California Air Resources Board (CARB) had provided in March 2015 and emission data on gasoline dispensing facilities. As part of this rule development process for PAR 1401, staff evaluated the potential impacts of the revised emission factors and gasoline speciation profiles and how they could affect new gasoline dispensing facilities combined with the use of the 2015 OEHHA Guidelines in proposed SCAQMD Risk Assessment Procedures (Version 8.1).

Gasoline Dispensing Emission Factors

Gasoline dispensing emission factors gasoline speciation profiles for air toxics are developed by ~~the California Air Resources Board~~ (CARB). In December 2013, CARB revised emission factors for gasoline dispensing facilities and are described in CARB's "Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities." (CARB's 2013 Revised Emission Factors). The emission factors were revised for the processes of loading, breathing, and refueling, and new information was added for hose permeation. The emission factor for spillage remains unchanged. Each of these emission sources is briefly described below:

- i) Loading - Emissions occur when a fuel tanker truck unloads gasoline to the storage tanks. The storage tank vapors, displaced during loading, are emitted through its vent pipe. A pressure/vacuum valve installed on the tank vent pipe significantly reduces these emissions.
- ii) Breathing - Emissions occur through the storage tank vent pipe as a result of temperature and pressure changes in the tank vapor space.
- iii) Refueling - Emissions occur during motor vehicle refueling when gasoline vapors escape either through the vehicle/nozzle interface or the onboard refueling vapor recovery (ORVR) system.
- iv) Spillage - Emissions occur from evaporating gasoline that spills during vehicle refueling.
- v) Hose Permeation - Emissions caused by the migration of liquid gasoline through the outer hose material and to the atmosphere through permeation.

One of the updates to the 2013 Revised Emission Factors was to add a new subcategory for refueling for Phase II fueling for vehicles equipped with ORVR. CARB's previous emission factors which were adopted in 1999 did not account for vehicles equipped with ORVR. Table 2 presents CARB's 2013 Revised Emission Factors and SCAQMD's proposed controlled gasoline emission factors for the process of loading, breathing, refueling, spillage and hose permeation. SCAQMD staff is recommending the use of CARB's Revised Controlled Gasoline Emission Factors for loading, breathing, spillage and hose permeation. SCAQMD staff, however, is recommending not to incorporate CARB's 2013 revised emission factors for refueling ORVR vehicles, but continuing the use of the current SCAQMD emission factor for refueling.

Table 2: CARB 2013 Revised and SCAQMD Proposed Controlled Gasoline Dispensing Emission Factors (lbs/1,000 gallon)

Emission Source	SCAQMD Current Controlled Gasoline Emission Factor (lbs/1,000 gal)	CARB 2013 Revised Controlled Gasoline Emission Factor (lbs/1,000 gal)	SCAQMD Proposed Controlled Gasoline Emission Factor (lbs/1,000 gal)
Loading	0.42	0.15	Same as CARB
Breathing	0.025	0.024	Same as CARB
Refueling – Phase II with Non-ORVR vehicles	0.32*	0.42	Same as CARB 0.32* (remain unchanged from current emission factor)
Refueling – Phase II with ORVR vehicles	NA 0.32	0.021	0.32* (remain unchanged from current emission factor)
Spillage	0.24	0.24	Same as CARB
Hose Permeation	None	0.009	Same as CARB

*SCAQMD staff is committed to continue working with CARB staff on the refueling emission factor for Phase II EVR with ORVR vehicles. Until then, SCAQMD staff is recommending using the current SCAQMD emission factor for refueling.

Refueling Emission Factor for Phase II with ORVR Vehicles

The SCAQMD staff has reviewed the emission factor for refueling, and believes that CARB's 2013 revised emission factors may overestimate the emission reductions from refueling with Phase II with ORVR vehicles. CARB's approach to derive the refueling emission factor is to apply a 95 percent control efficiency for Phase II enhanced vapor recovery (EVR), and an additional 95 percent control efficiency for ORVR to provide an overall control efficiency for refueling of 99.75 percent. Based on SCAQMD staff's review of the Phase II EVR and ORVR technologies, these two pollution control technologies may not work in series to provide a 99.75 control efficiency. The technical basis of staff's determination is presented below.

Phase II EVR is a system designed to capture displaced vapors that emerge from inside a vehicle's fuel tank, when gasoline is dispensed into the tank. As shown in Figure 4, during refueling, vapors are pulled from the gasoline tank to the underground storage tank for a vehicle that is not equipped with ORVR that is fueled with Phase II EVR. Currently there are two systems certified for Phase II EVR: a balance system and a vacuum-assist system. The balance system transfers vapors from the vehicle and returns them to the underground storage tank based on the pressure differential. A vacuum-assist system relies on a vacuum to draw vapors from the vehicle fuel tank into the underground storage tank. CARB requires use of ORVR-compatible Phase II EVR systems that are designed to sense when an ORVR vehicle is being refueled and reduces the air to liquid ratio to near zero to avoid compatibility emission effects in the underground storage tank. CARB has determined that Phase II EVR systems have a control efficiency of 95 percent.

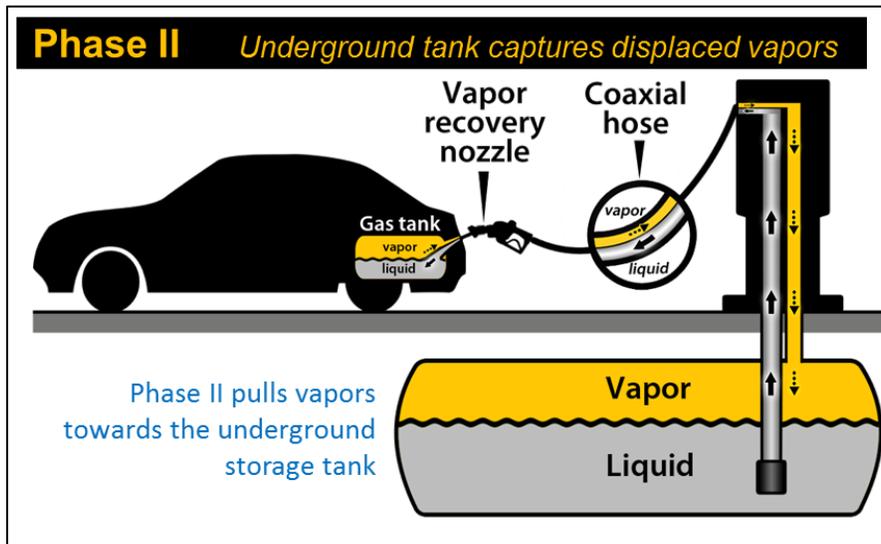


Image Source: Washington State JLARC Report: Gas Vapor Regulations

Figure 4: Phase II Vapor Recovery Underground Tank Captures Displaced Vapors

As shown in Figure 5, an ORVR system captures the gasoline vapors that are displaced during refueling and stores those vapors in a canister filled with activated carbon. When the vehicle engine is started, gasoline vapors stored in the canister are purged and burned in the engine. The carbon bed achieves an average control efficiency of 95% as determined by CARB.

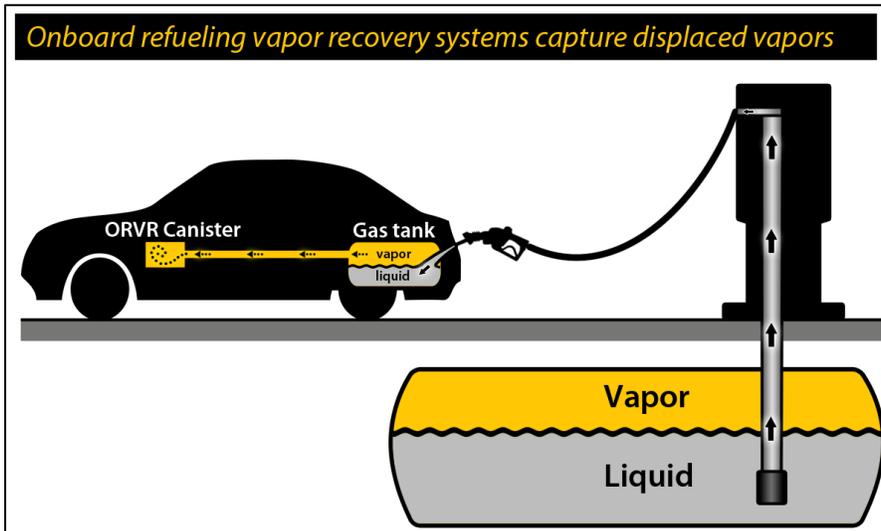


Image Source: Washington State JLARC Report: Gas Vapor Regulations

Figure 5: Onboard Refueling Vapor Recovery System Capture Displaced Vapors

Figure 6 provides a more detailed view of the fuel tank and the modified fillpipe on a vehicle equipped with ORVR. As shown in Figure 6, the ORVR system has mechanisms (i.e. a narrowed fillpipe to form a liquid barrier and a mechanical valve at the end of the fillpipe) to prevent vapor within a vehicle fuel tank from escaping via the fillpipe of the vehicle to the Phase II controls. The vapor that would have otherwise escaped through the fillpipe to the Phase II controls is instead directed to a carbon canister contained within the vehicle, which is the actual means of emission control of the ORVR system, to adsorb hydrocarbons contained in the displaced vapor.

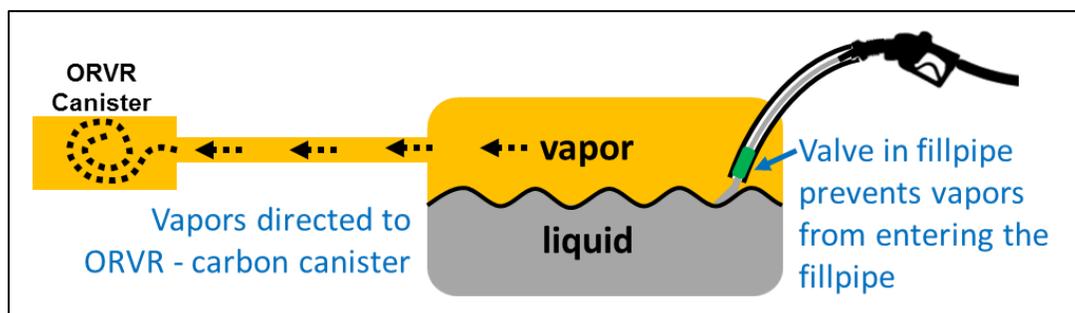


Image Source: Washington State JLARC Report: Gas Vapor Regulations

Figure 6: Detailed View of Fillpipe for Onboard Refueling Vapor Recovery System

CARB's revised emission factor for refueling of ORVR vehicles is calculated assuming that the ORVR system and the Phase II EVR system work consecutively in series to control vapor emissions, allowing a compounding control efficiency of 99.75 percent from both control equipment. However, there is no empirical evidence supporting the assumption that all the vapors escaping from the ORVR system are directed to the fillpipe and can be captured by the Phase II EVR system.

To further illustrate that emission reductions from the Phase II EVR system are not compounded, the United States Environmental Protection Agency (U.S. EPA) has conducted source test studies according to the Federal Test Procedure. The U.S. EPA tests were conducted using sealed housing emissions device (SHED), where emissions from both the fillpipe and the on-board canister were monitored. The U.S. EPA study tested 337 dispensing events, and the results are summarized in a report published by CARB in 2008 (Table 7)⁵. The fillpipe and on-board canister emissions together averaged to 0.25 pounds per 1,000 gallons, suggesting that the revised emission factor recommended by CARB underestimates the emissions from refueling ORVR vehicles. The table further shows a standard deviation of 1.15 which indicates the control efficiency of individual vehicle tested varies significantly from the average emissions of 0.25 pounds per 1,000 gallons.

Additional justifications can be found with the documents U.S. EPA issued on its rule to remove the federal Stage II program from the State Implementation Plans (SIP) requirements. On July 15, 2011, the U.S. EPA issued a proposed rule titled "*Widespread Use for Onboard Refueling Vapor Recovery and Stage II Waiver.*" The proposed rule allowed states to consider removing Stage II vapor recovery requirements when revising their SIPs, due to the national widespread use of

⁵ Available on the internet at <https://www.arb.ca.gov/vapor/archive/2008/orvrtestreport072408.pdf>

ORVR. Subsequently, U.S. EPA issued the “*Guidance on Removing Stage II Gasoline Refueling Vapor Recovery Programs from State Implementation Plan*” in 2012. The Guidance document provides both policy and technical recommendations for states seeking to remove or phase-out existing Stage II program, based on the premise that the Stage II program would become largely-redundant due to the widespread use of ORVR.

On the federal level, the control efficiency of Stage II is in the range of 60-75 percent, much lower than the California Phase II program (95 percent). In addition, in areas where certain types of vacuum-assist Stage II control systems are used, the limited compatibility between ORVR and some configurations of this Stage II hardware may result in an area-wide emissions disbenefit. U.S. EPA’s regulation stated that with the widespread use of the ORVR-equipped vehicles, Stage II programs have become largely redundant control systems with minimal reduction benefits beyond the ORVR system. SCAQMD and CARB have commented that Phase II EVR are still needed as discussed in more detail under their comment letters⁶ submitted in response to U.S. EPA’s proposed rule. U.S. EPA’s guidance does, however provide additional insight regarding the application of emission reductions from Stage II control systems for vehicles equipped with ORVR further demonstrating that the control efficiency of the ORVR and/or the Stage II systems are only applied once to the respective gasoline throughput. See Appendix A for a detailed discussion.

Additional Refueling Emission Reductions for Phase II with ORVR Vehicles

Although the SCAQMD staff does not believe that it is technically correct to apply an additional 95% control efficiency on the remaining refueling emissions for a vehicle equipped with ORVR, there is evidence that vehicles equipped with ORVR do have emissions at the fillpipe. A study conducted by CARB in 2008⁷ measured the gasoline vapor emissions at the vehicle fuel fillpipe of ORVR vehicles at a gasoline dispensing facility with no Phase II EVR system. Although the study demonstrated that the majority of the vapors escaping from the ORVR canister is not routed to the fillpipe, there is a small percentage of vapors that will escape the fillpipe that can be captured by the Phase II EVR system. As discussed below, the amount of vapors escaping the fillpipe that can be captured by the Phase II EVR system is much less than the 0.42 lbs/1,000 gallons that CARB used to estimate emission reductions from Phase II EVR systems for vehicles with ORVR.

The 2008 CARB study was conducted at an “ambient environment” at a gasoline dispensing facility for a rental vehicle company and based on 58 dispensing events. While the test was designed to evaluate fillpipe emissions, the study could not capture emissions from the on-board canister of the ORVR system. Therefore, it does not present total refueling emissions, which includes emissions from both the fillpipe and the on-board canister for ORVR vehicles. Results from the 2008 CARB study showed that fillpipe emissions from ORVR vehicles, which represent the vapors escaping via the fillpipe and not directed to the carbon canister, were 0.043 lb per 1,000 gallons dispensed for summer fuel and 0.094 lb per 1,000 gallons for winter fuel. The low fillpipe emissions for ORVR vehicles are consistent with the design of the ORVR system, which creates a seal in the vehicle fillpipe to route vapors to the onboard canister during dispensing. Moreover,

⁶ Available on the internet at

<https://www.regulations.gov/docketBrowser?rpp=50&so=DESC&sb=postedDate&po=0&dct=PS&D=EPA-HQ-OAR-2010-1076>

⁷ Available on the internet at <https://www.arb.ca.gov/vapor/archive/2008/orvrtestreport072408.pdf>

these emissions are a very small fraction of the anticipated emissions escaping from the ORVR canister, which is approximately 0.42 lbs per 1,000 gallons (5 percent of the uncontrolled emission factor of 8.4 lbs per 1,000 gallons).

The SCAQMD staff believes that there is a small amount of vapor that the Phase II EVR system will control during refueling of an ORVR vehicle. SCAQMD staff has been in communication with CARB staff regarding the refueling emissions factor. Both agencies agree that additional time is needed to better understand emission reductions from Phase II EVR for ORVR vehicles. SCAQMD staff is recommending not to incorporate CARB's 2013 revised emission factor for Phase II refueling of ORVR vehicles, but to continue the use of SCAQMD's current emission factor of 0.32 lbs per 1,000 gallons for refueling. Staff is recommending the use of CARB's 2013 emission factors for all other categories (loading, breathing, spillage, and hose permeation). The SCAQMD staff is committed to continue working with CARB staff to refine the refueling emission estimates for Phase II controls with ORVR vehicles. CARB staff received new information which suggests that their current recommended emission factor for refueling is underestimated. CARB will review the available data and information on refueling and prepare an addendum to the 2013 Revised Emission Factors. The addendum will undergo a public process prior to finalizing the refueling emission factor. Once the refueling emission factor is finalized by CARB, staff ~~and~~ will return to the Stationary Source Committee with the updated Risk Assessment Procedures within 30 days and return to the Board with future revisions to refueling emission factors as quickly as practicable.

Need for Phase II Enhanced Vapor Recovery with ORVR

Although U.S. EPA has determined that the federal Stage II program had become largely-redundant due to the widespread use of ORVR, the Phase II requirements are still needed in California. In 2011, CARB prepared a comment letter⁸ in response to U.S. EPA's proposed rule regarding gasoline vapor recovery control of ozone-precursor emissions titled *Air Quality: Widespread Use for Onboard Refueling Vapor Recovery and Stage II Waiver*. Included in the comment letter is an analysis that supports the need for California's Phase II EVR requirements even with the widespread use of ORVR. It highlights that Phase II EVR is needed for non-ORVR vehicles to achieve the additional VOC reductions of 14.7 tons per day in the year of 2020, and 8.8 tons per day in the year 2028 and beyond. Also, California's Phase II program includes other emission control features, such as in-station diagnostics and standards for nozzle liquid retention, dripless nozzle and spillage, in addition to the control of the vapors displaced during vehicle refueling. Thus, it achieves greater emission reductions than the federal Stage II program requirements and the improvement it provides is essential to meeting mandated federal ambient air quality standards.

Furthermore, the impacts of removing California's Phase II program could be magnified in disadvantaged communities. Due to the lower socioeconomic status in disadvantaged communities, the turnover of the fleet is usually lower. Since vehicles manufactured before year 1998 are not equipped with ORVR, disadvantaged communities could have a higher fraction of non-ORVR vehicles than non-disadvantaged communities, and removal of the Phase II EVR system would put much of the emission disbenefit in the disadvantaged communities.

⁸ Available on the internet at

<https://www.arb.ca.gov/vapor/carb%20response%20useap%20orvr%20widespread%20use%20nprm.pdf>.

In addition to emission factors, CARB has also developed speciation profiles of various toxic air contaminants. Out of the toxic compounds emitted from gasoline facilities, benzene, ethylbenzene, and naphthalene have cancer toxicity values. The speciation profiles are different for vapor and liquid phases of gasoline for benzene, ethyl benzene, and naphthalene. Table 3 presents the current and proposed speciation profile in weight percent for the three toxic air contaminants. SCAQMD staff recommends using CARB's proposed gasoline speciation profile.

Table 3: Current and Proposed Weight Percent (lbs/1,000 gallon)

Pollutant (Form)	Current Speciation	Proposed Speciation
Benzene (vapor)	0.30%	0.455%
Ethyl benzene (vapor)	0.118%	0.107%
Naphthalene (vapor)	0%	0.0004%
Benzene (liquid)	1.00%	0.707%
Ethyl benzene (liquid)	1.64%	1.29%
Naphthalene (liquid)	0.14%	0.174%

Analysis of Permitting Impacts for Gasoline Dispensing Facilities Using SCAQMD Risk Assessment Procedures Version 8.1

The proposed SCAQMD Risk Assessment Procedures (Version 8.1) has been revised using the following updated items for gasoline: (1) 2015 OEHHA Guidelines for spray booths and gasoline dispensing facilities, (2) emission factors for gasoline dispensing facilities and gasoline speciation profiles (as discussed earlier), and (3) dispersion model and meteorological data. To assess the impacts of these updates on future gasoline dispensing facilities, staff evaluated gasoline dispensing facilities that applied for a new permit (i.e. permit to construct or permit to operate) from October 1, 2009 through December 31, 2016. If the recalculated risk of a previously issued permit using the proposed SCAQMD Risk Assessment Procedures (Version 8.1) would be higher than Rule 1401 thresholds, then it was deemed that a similar future gasoline dispensing facility permit would potentially be impacted.

Under SCAQMD's Risk Assessment Procedures (Version 7.0), the U.S. EPA's dispersion model ISCST3 (Industrial Source Complex – Short Term, Version 3) was incorporated in the Hotspots Analysis and Reporting Program (HARP) software for the health risk assessment. In the most recent version of HARP (HARP 2), the U.S. EPA dispersion model AERMOD is used to estimate the concentration of pollutants in place of the previously used ISCST3 model. In addition to the new dispersion model, the meteorological data used to estimate cancer risk has been updated. It is SCAQMD's policy to update the meteorological data used for dispersion modeling every three years. In previous years, the use of SCAQMD collected meteorological data was used exclusively. However, in the most recent update of meteorological data, it was discovered that the meteorological data at some SCAQMD sites did not meet the QA/QC criteria for dispersion modeling. Therefore, the SCAQMD meteorological sites were supplemented with Automated Surface Observing System (ASOS) sites. Designed to serve meteorological and aviation observing needs, ASOS sites are located at various airports in the Basin. ASOS data was retrieved from the National Centers for Environmental Information (<https://www.ncei.noaa.gov/>). Finally, the use of meteorological correction factors for gasoline dispensing facilities have been removed in favor of

more precise dispersion factors provided for each meteorological station. Additional information about the updates of the meteorological modeling are included in Appendix VI of SCAQMD's Risk Assessment Procedures (Version 8.1).

Impacts on New Gasoline Dispensing Facilities

Over the seven-year period, 140 new permits of gasoline dispensing facilities were processed. To identify gasoline dispensing facilities that would exceed the maximum individual cancer risk of ten in one million as they are equipped with T-BACT, staff gathered the following data from the permit applications:

- Industry type and application type (new, modified, relocated);
- Permitted throughput, usually expressed as million gallons per year;
- Distance to the nearest residential and commercial receptor;
- Location of the gasoline dispensing facilities; and
- Maximum individual cancer risk

Table 4 provides a summary of the permitted annual throughput for the gasoline dispensing facilities reviewed. Of the 140 new permits, the majority of the applications (64 percent) are permitted at less than one million gallons per year. They include aboveground storage tanks, mobile fuelers, as well as underground storage tanks serving commercial (non-retail) operations. Fifty gasoline dispensing facilities were permitted at an annual throughput above one million gallons per year. Most of these higher throughput facilities are retail service stations.

Table 4: Annual Throughput of Gasoline Dispensing Facilities Permitted between 2009 and 2016

Annual Throughput (MMGals/year)	Number of Gasoline Dispensing Facilities	Industry Type
<1	90	Aboveground storage tanks, mobile fuelers, and others
1-3	9	Aboveground storage tanks and retail gas stations
>3	41	Retail gas stations

Impacts on New Gasoline Dispensing Facilities Permitted Using a Tier 4 Analysis

Over the seven-year period from October 2009 to December 2016, three of the 140 new gasoline dispensing facilities had a maximum individual cancer risk above ten in one million based on Tier 2 screening and therefore, the applicant submitted a more refined site specific Tier 4 analysis (Detailed Risk Assessment) in order to demonstrate compliance with Rule 1401 at the requested throughput. To estimate the potential impacts on those applications, a percentage change, based on a comparison between the Tier 2 screening tables of SCAQMD Risk Assessment Procedures in Version 7.0 and Version 8.1, was applied. The percentage change is site-specific, depending on the facility location and distance to receptor. After applying the percentage change, the estimated health risk for the three gasoline dispensing facilities is expected to decrease and remained below

the threshold of ten in one million. Therefore, it is expected that for new gasoline dispensing facilities permitted using Tier 4 analysis that in the future these permit applications would not be impacted by the proposed SCAQMD Risk Assessment Procedures (Version 8.1).

Impacts on New Gasoline Dispensing Facilities Permitted Using Tier 2 Analysis

The cancer risks for the rest of the permit applications (137 of 140) from 2009 to 2016 were determined using Tier 2 Screening Risk Assessment. In order to analyze the impacts to these permits from the use of the 2015 OEHHA Guidelines, staff used the screening tables (Tier 2) in the proposed SCAQMD Risk Assessment Procedures (Version 8.1) to estimate the cancer risk for the permits. Using the proposed SCAQMD Risk Assessment Procedures (Version 8.1), 132 of the 137 gasoline dispensing facilities had estimated cancer risks that remained below the Rule 1401 thresholds. Therefore, no impact is expected for 96 percent of the new permit applications, if these permits were to be processed with the proposed SCAQMD Risk Assessment Procedures (Version 8.1). Five of the 137 facilities had cancer risks that would exceed the threshold. The five facilities are retail service stations equipped with CARB certified Phase I and Phase II EVR systems, which are considered to be T-BACT. The five facilities are located in Whittier (Facility A), Burbank (Facility B), Riverside (Facility C), Perris (Facility D), and Perris (Facility E), respectively. Table 5 summarizes the potential impacts of the proposed SCAQMD Risk Assessment Procedures (Version 8.1). Note that for these five facilities, the permitted allowable throughput was based on Tier 2 Screening Risk Assessment as part of the permitting process. The permit applicants did not need to proceed to a higher tier (Tier 3: Screening Dispersion Modeling or Tier 4: Detailed Risk Assessment) for a more refined risk assessment. However, if Facility A, B⁹, C, D and E were to apply for a new permit under the proposed SCAQMD Risk Assessment Procedures (Version 8.1), their allowable throughput would have decreased by 13%, 16%, 40%, 28% and 22%, respectively.

All retail service stations within SCAQMD's jurisdiction are already equipped with CARB certified Phase I and Phase II vapor recovery systems to control gasoline emissions. Phase I vapor recovery refers to the collection of gasoline vapors displaced from storage tanks when cargo tank trucks make gasoline deliveries. Phase II EVR systems control the vapors displaced from the vehicle fuel tanks during refueling. In addition, all gasoline is stored underground with valves installed on the tank vent pipes to further control gasoline emissions. Installation of additional emission control technology is not economical and very unlikely.

⁹ Note that this facility is located within 500 feet of a school and permitted prior to the adoption of Rule 1401.1 - Requirements for New and Relocated Facilities near Schools. Under SCAQMD Rule 1401.1, the maximum individual cancer risk shall not exceed one in one million at any school within 500 feet of the toxic-emitting permit unit at the facility. Therefore, if a facility was to apply for a new or modified SCAQMD permit where Facility B is located, it would be subject to Rule 1401.1. The maximum individual cancer risk will be limited to less than one in one million at the school, and the permitted throughput will be substantially lower.

Table 5: Potential Impacts of the Proposed SCAQMD Risk Assessment Procedures (Version 8.1)

Facility	Maximum Individual Cancer Risk Estimated using Current SCAQMD Risk Assessment Procedures (Version 7.0) (per One Million)	Maximum Individual Cancer Risk Estimated using Proposed SCAQMD Risk Assessment Procedures (Version 8.1) (per One Million)
A	9.97	11.3
B	9.72	11.7
C	9.86	16.3
D	9.55	13.8
E	8.82	12.7

~~All retail service stations within SCAQMD's jurisdiction are already equipped with CARB certified Phase I and Phase II vapor recovery systems to control gasoline emissions. Phase I vapor recovery refers to the collection of gasoline vapors displaced from storage tanks when cargo tank trucks make gasoline deliveries. Phase II EVR systems control the vapors displaced from the vehicle fuel tanks during refueling. In addition, all gasoline is stored underground with valves installed on the tank vent pipes to further control gasoline emissions. Installation of additional emission control technology is not economical and very unlikely.~~

On the other hand, cancer risks decrease substantially with distance. Estimated cancer risks are higher when the facility is close to the receptor. For one million gallons of gasoline, the residential maximum individual cancer risk ranges from 2.6 to 5.2 in one million at 25 meters from receptor, and decreases considerably to a range of 0.31 to 0.76 in one million at 100 meters from the receptor. Among the five facilities listed in Table 5, the highest cancer risk is observed at Facility C. Using Facility C as the worst case scenario, the cancer risk calculated using the proposed SCAQMD Risk Assessment Procedures (Version 8.1) would remain below the threshold for the same throughput as previously permitted, if the distance between the emission source and the nearest downwind receptor was 54 meters instead of 41 meters. Thus, retail gasoline dispensing facilities that would like to be permitted with a relatively high throughput might need to give more consideration to its site design by positioning the emission source further away from the sensitive receptor.

Furthermore, while the use of Tier 1 and Tier 2 screening tables are useful to allow most facilities to demonstrate compliance with Rule 1401 without complicated dispersion modeling, there are other more refined modeling options available to applicants such as the use of Tier 3 and Tier 4 analyses. As previously discussed, three of the 140 new applicants demonstrated compliance through Tier 4 modeling. If the Tier 2 screening risk assessment results in a risk estimate that exceeds the risk limits or the permit applicant feels that a more detailed evaluation would result in

a lower risk estimate, the applicant has the option of conducting a more detailed analysis using Tier 3 or 4.

Impacts on Modified Gasoline Dispensing Facilities

Staff also evaluated applications submitted for modifications from existing gasoline dispensing facilities to analyze the potential impact on future modified permits. Over the five-year permitting period from October 1, 2009 through October 1, 2014, SCAQMD staff processed approximately 1,200 modified permits for gasoline dispensing facilities. Out of the 1,200 modified permits, staff conducted a detailed review of a subset of 300 permits, which were randomly chosen. This sample size was selected to provide a 95 percent confidence level and a 5 percent margin of error in the analysis.

Of the 300 permits for existing gasoline dispensing facilities filing for a permit for modifications between 2009 and 2014, 267 (~89 percent) modifications were associated with no emission increase and were exempt from Rule 1401. The rest of the permit modifications (33 of 300) were associated with an emission increase and triggered Rule 1401. Of the 33 permit modifications that triggered Rule 1401, 28 gasoline dispensing facilities used Tier 2 analysis and 5 gasoline dispensing facilities used Tier 4 analysis. The approach used to analyze potential impacts to modified permits was the same for new permitted gasoline dispensing facilities.

For the 28 modified permits that used Tier 2 screening analysis, the estimated cancer risks for all 28 gasoline dispensing facilities remained below the Rule 1401 thresholds when using the proposed SCAQMD Risk Assessment Procedures (Version 8.1). For the 5 modified permits that used Tier 4 dispersion modeling, two gasoline dispensing facilities would have an increase in the estimated health risk, but estimated health risk is ≤ 10 in a million. Estimated health risk for the remaining three gasoline dispensing facilities is expected to decrease. Therefore, based on the evaluation of 300 modified permits, no impact to future modified gasoline dispensing facilities is expected with the proposed SCAQMD Risk Assessment Procedures (Version 8.1).

Summary of Analysis on Gasoline Dispensing Facilities

Based on the detailed review of 173 new or modified gasoline dispensing facilities triggering Rule 1401 requirements from October 2009 to December 2016, the implementation of the proposed SCAQMD Risk Assessment Procedures (Version 8.1) will result in no impact for 97 percent of permit applications. Note that these impacts were estimated assuming the emission factor of 0.42 lbs per 1,000 gallons for Phase II refueling of ORVR-equipped vehicles, as a conservative estimate of cancer risk. If the current emission factor of 0.32 lbs per 1,000 gallons are used, the emissions and the associated cancer risk would be lower, resulting in either equal or fewer impacts than those presented above.

With a 95 percent confidence level, approximately three percent of permit applicants may need to proceed to a higher tier analysis (Tier 3: Screening Dispersion Modeling or Tier 4: Detailed Risk Assessment), consider reducing their throughput, or new gasoline dispensing facilities could increase the distance between emission sources and the nearest receptor. With SCAQMD receiving, on average, about 27 permit applications annually, approximately one permit could be affected by the proposed SCAQMD Risk Assessment Procedures (Version 8.1) per year. Therefore, the impact of the proposed amendments on gasoline dispensing facilities is minimal.

Therefore, staff recommends removing the exemption and referencing the proposed SCAQMD Risk Assessment Procedures (Version 8.1) for gasoline dispensing facilities.

LIST OF APPLICABLE TOXIC AIR CONTAMINANTS

Table 1 of Rule 1401 lists the toxic air contaminants that are subject to the rule and used to estimate health risks. The list consists of the compounds that OEHHA has provided acute, chronic, or carcinogenic health values. Periodically, OEHHA publishes new or updated health values and subsequently SCAQMD amends Table 1 to incorporate the new or updated information. Table 1 was last updated in 2010; in the interim, a number of health values have been published by OEHHA. Additionally, several compounds will be included on the list for clarity and consistency with California Air Resources Board's Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values which was last updated on February 23, 2017¹⁰.

New Compounds

Caprolactam (Chemical Abstracts Service Number 105-60-2) – In 2013, OEHHA developed acute and chronic Reference Exposure Levels of 50 $\mu\text{g}/\text{m}^3$ and 2.2 $\mu\text{g}/\text{m}^3$ respectively. OEHHA states that exposure to caprolactam has been found to cause upper respiratory and eye irritation in both animals and humans; inflammation of the nasal and laryngeal epithelium in rodents; and reduced weight of offspring for pregnant rats administered high doses orally. According to OEHHA¹¹, the increased eye blink frequency with eye irritation are manifestations of the same underlying event of ocular trigeminal nerve activation. Thus, the acute reference exposure limit is based on eye blink frequency. The acute reference exposure limit of 50 $\mu\text{g}/\text{m}^3$ was established by applying a species uncertainty factor of 10 to the No Observed Adverse Effect Level (NOAEL) of 500 $\mu\text{g}/\text{m}^3$. The chronic value of 2.2 $\mu\text{g}/\text{m}^3$ was derived by the 95 percent lower confidence limit of the dose producing a 5 percent response rate for the nasal respiratory and olfactory changes and the non-keratinized laryngeal tissue changes found at terminal sacrifice. An uncertainty factor of 60 was applied because of interspecies and study length uncertainties.

The main use of caprolactam is in the polymerization process during the manufacture of Nylon-6. Nylon-6 is a widely used type of nylon and is found in textiles, engineered plastics, and films used in packaging and medical applications. Exposure to caprolactam may occur during the production and recycling of Nylon-6, and offgassing from carpeting and other textiles containing Nylon-6.

Permitted use of caprolactam will occur nearly exclusively in resin manufacturing facilities. As a Volatile Organic Compound, caprolactam emissions are already regulated in resin manufacturing facilities by SCAQMD Rule 1141 – Control of Volatile Organic Compound Emissions from Resin Manufacturing. The provisions in that rule require that volatile organic compound emissions, including caprolactam emissions, be reduced by 95 percent or more from blending, reaction, and processing operations. Therefore, the addition of acute and chronic health risk values are not expected to have any additional impacts on resin manufacturing operations as they already are required to control caprolactam emissions.

¹⁰ Available on the internet at: <https://www.arb.ca.gov/toxics/healthval/contable.pdf>

¹¹ Available on the internet at: <https://oehha.ca.gov/media/downloads/cnr/caprolactam2013.pdf>

Carbonyl sulfide (Chemical Abstracts Service Number 463-58-1) – In 2017, OEHHA developed acute and chronic Reference Exposure Levels of $660 \mu\text{g}/\text{m}^3$ and $10 \mu\text{g}/\text{m}^3$ respectively¹². OEHHA found that inhalation of carbonyl sulfide results in adverse health effects in the central nervous system. The NOAEL for carbonyl sulfide is $1,500,000 \mu\text{g}/\text{m}^3$. The time-adjusted one hour NOAEL is $1,300,000 \mu\text{g}/\text{m}^3$. The acute reference exposure limit was determined by applying an uncertainty factor of 2,000 to the time-adjusted one hour NOAEL resulting in an acute reference exposure limit of $660 \mu\text{g}/\text{m}^3$. The uncertainty factor was based on limited information on acute toxicity and there were no pharmacokinetic modeling data available. For chronic exposures, the time-adjusted NOAEL was determined to be $130,000 \mu\text{g}/\text{m}^3$. An uncertainty factor of 6,000 was applied resulting in a chronic reference exposure limit of $22 \mu\text{g}/\text{m}^3$. The uncertainty factor was based on default factors for interspecies and intraspecies toxicokinetic and toxicodynamic differences.

For industrial uses, carbonyl sulfide is emitted from some refineries as an end product of sulfur combustion. It is also a potential grain fumigant replacing methyl bromide. In 2012, reported emissions of carbonyl sulfide in SCAQMD was just over 15,000 pounds annually with the largest facility reporting 7,706 pounds of annual emissions.

Refinery sources and potential fumigant sources of carbonyl sulfide are already closely controlled. Refineries reporting carbonyl sulfide emissions already determine health risks by accounting for contributions from carbonyl sulfide in the Air Toxics Hot Spots Program. Additionally, sulfur emissions are regulated as criteria pollutants necessitating the use of control equipment. The inclusion of acute and chronic non-cancer health values for carbonyl sulfide are not expected to require additional pollution controls as the sources of those emissions already are expected to have pollution control.

Compounds with Added Health Risk Values

Butadiene, 1,3- (Chemical Abstracts Service Number 106-99-0) – In 2013, OEHHA developed an acute reference exposure level of $660 \mu\text{g}/\text{m}^3$ ¹³. At the same time, OEHHA also updated the chronic inhalation health value to $2.0 \mu\text{g}/\text{m}^3$. In 1992, OEHHA established a cancer inhalation unit risk value of $1.7 \times 10^{-4} (\mu\text{g}/\text{m}^3)^{-1}$. For permitted units, the cancer risk is generally orders of magnitude greater than the acute risk. Therefore the inclusion of an acute reference exposure level for 1,3- butadiene is not expected to have any additional impacts on permitted sources.

Methylene diphenyl diisocyanate – (Chemical Abstracts Service Number 101-68-8) – In 2016, OEHHA developed an acute reference exposure level of $12 \mu\text{g}/\text{m}^3$ ¹⁴ and updated the chronic reference exposure level to $8.0 \times 10^{-2} \mu\text{g}/\text{m}^3$. The chronic reference exposure level is more than two magnitudes lower than the acute reference exposure level and thus the inclusion of an acute reference exposure level is not expected to have any additional impacts on permitted sources. In addition, a typographical error was corrected for this compound.

Toluene diisocyanates (Chemical Abstracts Service Number 26471-62-5), including toluene-2,4-diisocyanate (Chemical Abstracts Service Number 584-84-9) and toluene-2,6-diisocyanate

¹² Available on the internet at: <https://oehha.ca.gov/media/downloads/cnr/cosrel022117.pdf>

¹³ Available on the internet at: <https://oehha.ca.gov/media/downloads/cnr/072613bentcrel.pdf>

¹⁴ Available on the internet at: <https://oehha.ca.gov/media/downloads/air/report-hot-spots/finalmdirelmarch2016.pdf>

(Chemical Abstracts Service Number 91-08-7) – In 2016, OEHHA developed an acute reference exposure level of $2.0 \mu\text{g}/\text{m}^3$ for the parent compound of toluene diisocyanate and related compounds toluene-2,4-diisocyanate and toluene-2,6-diisocyanate¹⁵. The chronic reference exposure level was also updated at the same time to $8 \times 10^{-3} \mu\text{g}/\text{m}^3$. However, the cancer inhalation unit risk, established in 1999, is $1.1 \times 10^{-5} (\mu\text{g}/\text{m}^3)^{-1}$ resulting in a cancer risk that is generally orders of magnitude greater than the acute risk. For permitted units, the inclusion of an acute reference exposure level for toluene diisocyanates is not expected to have any additional impacts.

Compounds Added for Clarification and Consistency

In two cases, a parent compound is listed in Table 1 of Rule 1401 while some associated compounds are not. To clarify the applicability of the compounds and to make Table 1 more consistent with CARB's Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values (February 23, 2017), the following related compounds in Table 6 below will be added to Table 1 of Rule 1401:

Table 6: Related Compounds Added for Clarification and Consistency

Compound	Chemical Abstracts Service Number	Already Listed Parent Compound
Barium chromate	10294-40-3	Chromium (hexavalent)
Calcium chromate	13765-19-0	Chromium (hexavalent)
Chromic trioxide	1333-82-0	Chromium (hexavalent)
Sodium dichromate	10588-01-9	Chromium (hexavalent)
Strontium chromate	7789-06-2	Chromium (hexavalent)
Zinc chromate	13530-65-9	Chromium (hexavalent)
Hexachlorocyclohexane, alpha	319-85-6	Hexachlorocyclohexanes (mixed or technical grade)
Hexachlorocyclohexane, beta	319-85-7	Hexachlorocyclohexanes (mixed or technical grade)

Similarly, in two other cases, a related compound is listed in Table 1 while the parent compound is not. The following parent compounds will be added to Table 1 of Rule 1401 as shown in Table 7 below.

Table 7: Parent Compounds Added for Clarification and Consistency

Parent Compound	Chemical Abstracts Service Number	Already Listed Related Compound
Fluorides	1101	Hydrogen fluoride
Vanadium	7440-62-2	Vanadium pentoxide

For both the newly added parent and related compounds, the effective date of rule applicability will be the same as the already listed compound.

¹⁵ Available on the internet at: <https://oehha.ca.gov/media/downloads/air/report-hot-spots/finaltdirelmarch2016.pdf>

Finally, a typographical error was corrected as the same compound, vinylidene chloride and dichloroethylene, 1,1- (Chemical Abstracts Service Number 75-35-4), is listed twice. To avoid confusion, the compound will remain listed twice but the dichloroethylene, 1,1- will refer back to vinylidene chloride.

AFFECTED INDUSTRIES

Implementation of PAR 1401 is expected to potentially increase the estimated cancer risks for spray booths and gasoline dispensing facilities. SCAQMD staff conducted an analysis to better understand the number of sources that could be potential affected by the proposal. Staff estimates two spray booth permits annually could require higher level of air pollution controls. The expected additional air pollution control would be the replacement of HEPA filters with ULPA filters. For gasoline dispensing facilities, one permit applications annually will have a lower permitted throughput, consider increasing their distance of emission sources to the nearest residential receptor, or proceed to a Tier 3 or Tier 4 analysis requiring dispersion modeling. Finally, five refineries will see a negligible increase in cancer risk because of the addition of carbonyl sulfide to the Rule 1401 Toxic Air Contaminant list.

SOCIOECONOMIC ASSESSMENT

PAR 1401 would require the use of the proposed SCAQMD Risk Assessment Procedures (Version 8.1), also referred to as Procedures, when determining health risks for all new and modified permitted equipment and processes at spray booths and gasoline dispensing facilities. The updates to the Procedures could potentially increase the calculated cancer risk for emission sources at the affected facilities. Based on staff's analysis of SCAQMD permits issued from October 1, 2009 through October 1, 2014, two spray booths and one gasoline dispensing facility per year could potentially incur costs to comply with PAR 1401¹⁶. Spray booths belong to various sectors of the economy such as manufacturing, wholesale, retail, services, and the affected gasoline dispensing facilities belong to the sector of retail services. As spray booths and gasoline dispensing facilities tend to be small businesses, the potentially affected facilities by the proposed amendments are also likely to be small businesses.

For the potentially affected spray booths with new or modified permits, an average of two facilities per year are expected to need to install ULPA filters in lieu of HEPA filters to comply with PAR 1401. The unit cost of ULPA filters is expected to be very similar to the unit cost of HEPA filters. However, ULPA filters require the use of higher horsepower blowers. For a typical size of spray booth, a 15 HP blower will be needed for ULPA filters as opposed to a 10 HP blower for HEPA filters. A 15 HP blower is more expensive than a 10 HP blower, and it also uses more electricity which would result in a higher operation cost. The incremental cost of a 15 HP blower over a 10 HP blower is estimated at \$750 (\$4,250 for a 15 HP blower vs \$3,500 for a 10 HP blower). The incremental operating cost related to additional electrical usage is estimated at \$595 annually ($\$0.13/\text{kWh} \times 2.2 \text{ kW} \times 8 \text{ hours/day} \times 5 \text{ days/week} \times 52 \text{ weeks/year}$).¹⁷ Based on a typical equipment life of five years, the present value of the total incremental costs of purchasing and

¹⁶ For new gasoline dispensing facilities, staff analyzed permits up to December 2016.

¹⁷ \$0.13/kWh represents the average commercial electricity rate in the City of Los Angeles (see <http://www.electricitylocal.com/states/california/los-angeles/>). Additionally, the blower is assumed to be operated at the 50-percent capacity to reach the typical five-year equipment life.

operating a 15 HP blower is estimated to be up to \$3,725 per facility [$\$750 + \595×5], or \$7,450 for a total of two potentially affected spray booths.¹⁸

For the potentially affected gasoline dispensing facilities with new or modified permits, an average of one facility per year is expected to proceed to the more complicated Tier 3 or Tier 4 HRA unless the facility can lower its permitted throughput or increase the distance between the emission sources to the nearest receptor. For the purpose of the socioeconomic impact assessment, it is assumed that the affected facility would proceed to a Tier 4 HRA, which would require dispersion modeling to predict the atmospheric concentrations of gaseous and particulate pollutants using site-specific input parameters. Based on a vendor's price quote, the annual cost of dispersion modeling is estimated at \$15,000 per gasoline dispensing facility.

Therefore, the overall compliance cost is estimated at \$22,450 ($\$7,450 + \$15,000$) per year based on the assumption that, each year after PAR 1401 adoption, there will be two spray booths and one gasoline dispensing facility applying for new or modified permits that will need to fulfill additional requirements to comply with PAR 1401. It has been a standard socioeconomic practice that, when the annual compliance cost is less than one million current U.S. dollars, the Regional Economic Models Inc. (REMI)'s Policy Insight Plus Model is not used to simulate jobs and macroeconomic impacts. This is because the resultant impacts would be diminutive relative to the baseline regional economy.

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA) and SCAQMD Rule 110, the SCAQMD, as lead agency for the proposed project, has reviewed the proposed amendments to Rule 1401 pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. To comply with the requirements in Proposed Amended Rule 1401, new and modified spray booths would require more efficient filters to control emissions, and new and modified gasoline dispensing facilities may either comply by requesting a lower throughput, or by increasing the distance to the nearest residential receptor, or by conducting a Tier 3 or Tier 4 analysis. In any event, there would be no physical change to existing gasoline dispensing facilities and very minimal physical changes to spray booths due to implementing Proposed Amended Rule 1401. SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed ~~amendments to Rule 1401~~ project may have a significant adverse effect on the environment. Therefore, ~~PAR 1401~~ the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section § 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption ~~will be~~ has been prepared pursuant to CEQA Guidelines Section 15062 - Notice of Exemption, and is included as an attachment to the Board package. If the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

¹⁸ The present value of \$3,725 per spray booth is derived by assuming a zero discount rate. The amount would decrease if a greater discount rate is used. Notice this cost may recur every five years if ULPA filters would continue to be required for these facilities and the differences in the capital and operation costs would continue to remain the same between a 15 HP and a 10 HP blower.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

California 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 staff report.

Necessity

PAR 1401 is needed to update rule language relating to risk assessment calculations such that they are consistent with those specified in the state OEHHA Risk Assessment Guidelines adopted on March 6, 2015.

Authority

The SCAQMD Governing Board has authority to adopt amendments to Rule 1401 pursuant to the California Health and Safety Code Sections 39002, 39650 et. Seq., 40000, 40001, 40440, 40441, 40702, 40725 through 40728, 41508, 41700, and 42300 et. Seq. 41706, 44360 through 44366, and 44390 through 44394.

Clarity

PAR 1401 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

PAR 1401 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions or state or federal regulations.

Non-Duplication

PAR 1401 will not impose the same requirements as any existing state or federal regulations. 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 1401, the SCAQMD Governing Board will be implementing, interpreting or making specific the provisions of the California Health and Safety Code Sections 39666 (District new source review rules for toxics), 41700 (prohibited discharges), and 42300 et. Seq., (permit system), 44360 through 44366 (Risk Assessment).

Rule Adoption Relative to Cost-effectiveness

On October 14, 1994, the Governing Board adopted a resolution that requires staff to address whether rules being proposed for adoption are considered in the order of cost-effectiveness. The 2016 Air Quality Management Plan (AQMP) ranked, in the order of cost-effectiveness, all of the control measures for which costs were quantified. It is generally recommended that the most cost-effective actions be taken first. However, PAR 1401 is not a control measure that was included in

the 2016 AQMP and was not ranked relative to other criteria pollutant control measures in the 2016 AQMP.

Incremental Cost-effectiveness

Health and Safety Code Section 40920.6 requires an incremental cost effectiveness analysis for Best Available Retrofit Control Technology (BARCT) rules or emission reduction strategies when there is more than one control option which would achieve the emission reduction objective of the proposed amendments, relative to ozone, CO, SO_x, NO_x, and their precursors. Since PAR 1401 applies to toxic air contaminants, the incremental cost effectiveness analysis requirement does not apply.

COMPARATIVE ANALYSIS

Health and Safety Code section 40727.2 requires a comparative analysis of the proposed amended rule with any Federal or District rules and regulations applicable to the same source. See Table 8 below.

Table 8: Comparative Analysis of PAR 1401 with Rules 212, 1401.1, 1402, and Federal Regulations

Rule Element	PAR 1401	Rule 212	Rule 1401.1	Rule 1402	Equivalent Federal Regulation
Applicability	New, relocated or modified permit unit	New or modified permit unit	New or relocated permit unit	Existing facilities subject to Air Toxics “Hot Spots” Information and Assessment Act of 1987 and facilities with total facility emissions exceeding any significant or action risk level	None
Requirements	Limits maximum individual cancer risk, cancer burden and chronic and acute hazards	Provide public notice to all nearby addresses projects that are located within 1,000 feet of a school, increase risk or nuisance, or increase criteria pollutants above specified thresholds	Limits cancer risk and chronic and acute hazards near schools	Submittal of health risk assessment for total facility emissions when notified. Implement risk reduction measures if facility-wide risk is greater than or equal to action risk level	None
Reporting	None	Verification that public notice has been distributed	None	Progress reports and updates to risk reduction plans	None
Monitoring	None	None	None	None	None
Recordkeeping	None	None	None	None	None

Appendix A – U.S. EPA Guidance on Removing Stage II Gasoline Refueling Vapor Recovery Programs from State Implementation Plan

On a federal level, the control efficiency of Stage II is in the range of 60- 75 percent, much lower than the California Phase II program (95 percent). In addition, in areas where certain types of vacuum-assist Stage II control systems are used, the limited compatibility between ORVR and some configurations of this Stage II hardware may result in an area-wide emissions disbenefit. U.S. EPA’s regulation stated that with the widespread use of the ORVR-equipped vehicles, Stage II programs have become largely redundant control systems with minimal reduction benefits beyond the ORVR system. SCAQMD and CARB have commented that Phase II EVR is still needed as discussed in more detail under their comment letters¹⁹ submitted in response to U.S. EPA’s proposed rule titled “*Widespread Use for Onboard Refueling Vapor Recovery and Stage II Waiver.*” U.S. EPA’s guidance does, however provide additional insight regarding the application of emission reductions from Stage II control systems for vehicles equipped with ORVR further demonstrating that the control efficiency of the ORVR and/or the Stage II systems are only applied once to the respective gasoline throughput (the same control efficiency was applied to both the throughput of Stage II and non-ORVR vehicles).

The U.S. EPA Guidance document provides two equations to calculate impacts on the refueling emission inventory whereas the results could be used by States to support SIP actions (Section 3.3). Equation 1 determines the overall stage II-ORVR increment, which identifies the annual area-wide emission control gain from Stage II installations as ORVR technology phases in, assuming both have the same efficiency. It also indicates the emission reduction potential loss (in year i) from removing Stage II. Equation 1 is shown below:

$$\text{Equation 1}$$

$$\text{increment}_i = (Q_{\text{SII}})(1-Q_{\text{ORVRI}})(\eta_{\text{iUSII}}) - (Q_{\text{SIIva}})(CF_i)$$

The first part of the equation identifies the overall Stage II-ORVR increment. The second part of the equation accounts for vacuum-assist compatibility factor, which is not applicable in California because California’s Phase II EVR system requires compatibility with ORVR. Equation 1 estimates the incremental emission control gain with the widespread use of ORVR vehicles by accounting for (1) fraction of gasoline throughput covered by Stage II vapor recovery system (Q_{SII}), the fraction of gasoline dispensed to non-ORVR vehicles ($1-Q_{\text{ORVRI}}$) and the in-use control efficiency of the stage II vapor recovery system (η_{iUSII})

Equation 2 determines the delta between the Stage II efficiency and the ORVR efficiency with both technologies in place. It considers the greater efficiency of ORVR relative to non-ORVR vehicles refueling at Stage II-equipped gasoline dispensing facilities. Equation 2 is shown below:

¹⁹ Available on the internet at

<https://www.regulations.gov/docketBrowser?rpp=50&so=DESC&sb=postedDate&po=0&dct=PS&D=EPA-HQ-OAR-2010-1076>

Equation 2

$$\mathit{delta}_i = (Q_{\text{SI}})(\eta_{\text{IISII}}) - (Q_{\text{SIIVa}})(CF_i) - (Q_{\text{ORVRi}})(\eta_{\text{ORVR}})$$

As demonstrated in the two equations above, the control efficiency of the ORVR and / or the Stage II systems are only applied once to the respective gasoline throughput (the same control efficiency was applied to both the throughput of Stage II and non-ORVR vehicles in equation 1). If the two control equipment were to work in series, the control efficiency of the two would have been multiplied together, as the way it was determined by CARB:

$$\begin{aligned} \text{ORVR, Phase II EVR} &= (\text{non-ORVR UEF}) * (1 - \text{ORVR CE}) * (1 - \text{Ph II EVR CE}) \\ &= (8.4 \text{ lbs/kgal}) * (1 - 0.95) * (1 - 0.95) = 0.021 \text{ lbs/kgal} \end{aligned}$$

Thus, SCAQMD staff's interpretation that the ORVR and Phase II vapor recovery system may not work in series is consistent with the methodology used by U.S. EPA to determine the impacts of removing the Stage II program.

Appendix B – Comments and Responses



California Independent Oil Marketers Association
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Sacramento, CA 95834-1955
916.646.5999

July 19, 2017

Susan Nakamura
Assistant Deputy Executive Officer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Via email at: snakamura@aqmd.gov

Re: Proposed Amended Rule 1401- New Source Review of Toxic Air Contaminants

Dear Ms. Nakamura:

These comments are presented on behalf of CIOMA, a part of the California Small Business Alliance, members that own and operate facilities that are affected by Proposed Amended Rule 1401- New Source Review of Toxic Air Contaminants.

The California Independent Oil Marketers Association (CIOMA) represents about 300 members, including nearly 90% of all the independent petroleum marketers in the state and about one quarter of the state's 10,000 service stations. Our members provide services to local governments, law enforcement, city and county fire departments, ambulances/emergency vehicles, school district bus fleets, construction firms, marinas, public and private transit companies, hospital emergency generators, trucking fleets, independent fuel retailers (small chains and mom-and-pop gas stations) and California agriculture, among others.

The District is proposing to make several changes to its evaluation procedures for new and modified gasoline dispensing facilities (GDFs) and has not disclosed key details critical to the rule development, which is proceeding on a severely compressed schedule with limited public input. CIOMA's major concerns regarding Proposed Amended Rule 1401 are as follows:

The Proposed Amended Rule 1401 rule development schedule has been aggressively compressed, with technical documents not being provided to stakeholders prior to the set hearing date.

The first working group meeting for Proposed Amended Rule 1401 was held on June 1, 2017; draft rule language and the Draft Staff Report was released on June 16, 2017. Stakeholders were also notified on June 16 of the dates of the second working group meeting and public workshop, scheduled for June 29 and July 12 respectively. Technical documents were

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requested by stakeholders at the first working group meeting and promised by Staff to be available at the second working group meeting.

The second working group meeting was rescheduled for July 6, **one day prior** to the set hearing scheduled for July 7. No technical documentation was provided by Staff at the second working group meeting; Staff stated that the gasoline station appendix would be available by mid-July and the Proposed Risk Assessment Procedures Version 8.1 would be available by August 2. A third working group meeting was scheduled for July 20 at the request of stakeholders due to the lack of available technical documentation to evaluate the proposed changes to Rule 1401.

The gasoline station appendix (Attachment N) was available via hard copy at the public workshop on July 12. Attachment N and its methodology (Appendix X) were emailed to the Proposed Amended Rule 1401 working group list on the night of July 15. Neither document has been posted online to the Proposed Rules page of the SCAQMD website. The Proposed Risk Assessment Procedures (Version 8.1) will not be released until August, when many members of Staff will be unavailable for questions or comment.

Staff is presenting the proposed rule **one day after** the third working group on July 21. The public hearing for Proposed Amended Rule 1401 is scheduled for September 1, 2017. With much of the technical documentation supporting the proposed changes in the rule being released within the last week, or not yet released, such a short timetable has not allowed for a robust public rulemaking process with proper stakeholder input.

SCAQMD plans to increase the emission factor for refueling activities at GDFs to the level identified by the California Air Resources Board (CARB) for vehicles not equipped with onboard refueling vapor recovery (ORVR) systems.

Staff is planning on increasing its emission factor for refueling activities at GDFs, and differing from CARB and the emissions factor SCAQMD used to develop its own emissions inventory for the AQMP. The majority of vehicles are equipped with ORVR, and for ORVR vehicles CARB identified an emission factor twenty times lower than non-ORVR vehicles. The District needs to provide more technical information for its own proposed emission factor, and identify why it appears to be disregarding ORVR entirely. Stakeholders are not able to determine the analysis behind Staff's increase in the emissions factor and divergence from CARB's determination for ORVR vehicles without access to the Proposed Risk Assessment Procedures (Version 8.1), which will not be available until August.

The Governing Board adoption hearing for Proposed Adopted Rule 1401 should be delayed from the September 1, 2017 date.

Conclusion

Due to the lack of availability of technical documents to stakeholders, the constricted rulemaking schedule pushed up against the SCAQMD August summer recess, and the need for

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continued technical analysis due to the implications of the proposed changes, the date of the Governing Board adoption hearing for Proposed Adopted Rule 1401 should be delayed. Stakeholders have not had the proper opportunity to have access to key technical documents critical to proposed changes to the emission factor for refueling activities at GDFs, and will not have the opportunity to make comments in a timely fashion due to the rulemaking and staff schedule. The hearing should be delayed to ensure the proper public rulemaking process takes place and all analysis is completed in a thoughtful, transparent manner.

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Please contact Samuel Bayless at bayless@cioma.com or (916) 646-5999 with any questions.

Sincerely,

Samuel Bayless
Regulatory Issues Specialist
California Independent Oil Marketers Association

CC:
Wayne Nastri, SCAQMD Executive Officer
Philip Fine, Ph.D., SCAQMD Deputy Executive Officer
Ben Benoit, Mayor Pro Tem, City of Wildomar
Joseph Lyou, Ph.D, Governor's Appointee /SCAQMD Governing Board
Judith Mitchell, Councilmember, City of Rolling Hills Estates
Shawn Nelson, Supervisor, Fourth District/County of Orange
Janice Rutherford, Supervisor, Second District/County of San Bernardino
Sheila Kuehl, Supervisor, Third District/County of Los Angeles
Ruthanne Taylor Berger, Board Assistant to Ben Benoit
Mark Abramowitz, Board Assistant to Dr. Joseph Lyou
Marisa Perez, Board Assistant to Judith Mitchell
Denis Bilodeau, Board Assistant to Shawn Nelson
Mark Taylor, Chief of Staff to Janice Rutherford
Andrew Silva, Board Assistant to Janice Rutherford
Diane Moss, Board Assistant to Sheila Kuehl

Response to Comment 1-1

In the first working group meeting, staff presented the proposed emission factors for gasoline dispensing facilities, and agreed to invite a subject matter expert from Engineering & Permitting to the next working group to provide a technical explanation.

Draft Proposed Amended Rule 1401 and the Preliminary Draft Staff Report were released on June 16, more than 75 days before the public hearing.

In the second working group meeting, staff presented more background information and the technical basis of the proposed emission factors (~~link~~http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/par1401_wg2_070617.pdf), and provided clarification and justification for the proposal. To address the concerns on the potential impacts on gasoline dispensing facilities, both the Preliminary Draft of Appendix X - Methodology Used to Develop Tier 2 Screening Tables for Gasoline Transfer and Dispensing Facilities and the corresponding Attachment N screening tables from proposed SCAQMD Risk Assessment Procedures (Version 8.1) were released on July 15. A third working group meeting was held to walk the stakeholders through and answer any questions on these two documents.

On July 21, the proposed amendments to Rule 1401 and the associated impacts were presented to the Stationary Source Committee. Staff highlighted the key issues on the proposed emission factors of gasoline dispensing facilities and the rule development schedule. Both issues were thoroughly discussed among Committee members, staff, and stakeholders.

A Draft Staff Report, including additional information on the technologies of the ORVR and Phase II vapor recovery system, as well as the rationale behind using the current SCAQMD emission factor for refueling (0.32 lbs per 1,000 gallons) has been released on August 2. ~~Staff is available to hold another working group meeting in August to address any questions or concerns that may arise.~~ Based on Board Member comments at the Stationary Source Committee on July 21, 2017, Staff held the fourth Working Group Meeting on August 16th to allow CARB present their current view on the refueling emission factor for gasoline dispensing facilities.

In brief, the proposed rule language, the Preliminary Draft Staff Report, Draft Staff Report (which also includes the Socioeconomic Analysis) have been released following the rule development schedule, and additional technical justification has been provided to stakeholders in a timely manner ~~upon request.~~

Response to Comment 1-2

As discussed in Response to Comment 1-1, additional background information and technical justification was provided in the second working group meeting on July 6. The sections relevant to gasoline dispensing facilities from Proposed Risk Assessment Procedures Version 8.1 were released on July 15 and a working group meeting was held on July 20 to address questions and concerns on the documents.

As discussed at the Working Group meetings, based on the available test data from CARB and EPA, SCAQMD staff concluded that the Phase II vapor recovery system and ORVR systems would each achieve a 95% control efficiency. However, there is no empirical evidence to support the assumption that all the vapors escaping from the ORVR system are directed to the fillpipe and

can be captured by the Phase II EVR system. For more information, please refer to Response to Comment 2-2.

On the emission factor used for the refueling in gasoline dispensing facilities in the 2016 AQMP, please refer to Comment 2-6.

Response to Comment 1-3

PAR 1401 has followed a typical rule development schedule and has met the requirements of SCAQMD's public process for rulemaking. Upon request, additional technical justification has also been provided to stakeholders in a timely manner. Staff is available for follow up meetings to answer questions or provide clarifications before the Public Hearing.



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July 25, 2017

Ms. Kalam Cheung
Planning, Rule Development and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
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Email: kcheung@aqmd.gov

Re: **Costco Wholesale Corporation Comments on SCAQMD Proposed Amended Rule 1401**

Dear Ms. Cheung:

Costco Wholesale Corporation appreciates this opportunity to provide comments on the South Coast Air Quality Management District’s Proposed Amended Rule (PAR) 1401 – New Source Review of Toxic Air Contaminants. As you know, for years Costco has stood at the forefront of emissions control efforts concerning California gasoline dispensing facilities (GDFs). Costco has worked closely with the District and the California Air Resources Board (ARB) over many years to develop and test cutting-edge in-station diagnostic (ISD) technologies designed to automatically detect vapor recovery system failures and avoid volatile organic compound (VOC) emissions through early detection and repair. In many cases, VOC emissions reduction technologies tested and adopted by Costco have gone well beyond what the regulations require. This is because Costco has made a commitment to conduct all of its operations in an environmentally responsible and sustainable manner, recognizing that in order for Costco to thrive, our world and shared environment must also thrive.

We believe that sound environmental policy requires use of the latest and best scientific data available. Accordingly, we commend the District for proposing amendments to District Rule 1401 that strive to incorporate the most up-to-date information available regarding the emissions performance of today’s GDFs. As you know, advances in enhanced vapor recovery (EVR) technology in the past few decades have literally changed the face of GDF regulation. Onboard refueling vapor recovery (ORVR) technology, which results in capture of greater than 95% of all organic vapors from a passenger car gas tank during refueling, is required to be

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installed on new passenger cars and is now present on the vast majority of cars on California's roads. In addition, Phase I and II EVR technologies installed in gasoline underground storage tanks and gasoline pump nozzles, respectively, provide additional control of gasoline vapors displaced from USTs and vehicle gas tanks during refilling, further ensuring an extremely low VOC emissions profile at today's GDFs. Market penetration of these technologies has risen dramatically in just the last decade alone, meaning that estimates of GDF emissions today are now, thankfully, far lower than estimates from ten years ago.

Thus, Costco was very pleased to work with the District and ARB over that past decade not only to implement EVR at its California GDFs, but also to gather the data necessary to update the statewide VOC and toxics emissions factors applicable to GDFs. Prior GDF emission factors were adopted in 1999 and did not account for technological advances in Phase I, Phase II and ORVR technologies implemented over the next 15 years. For that reason, ARB invited several air districts and other stakeholders to collaborate in a multi-year study of GDF emissions using current technologies. As you know, on December 23, 2013 ARB released its "Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities" (ARB 2013 GDF Factors)¹ updating emissions factors for Phase I transfers and Phase II refueling, and adding new emissions sub-categories for Phase II refueling of ORVR-equipped vehicles and gasoline dispensing hose permeation. We understand the District participated closely in this process.

In relevant part, PAR 1401 seeks to update the District's new source review rule for toxic emissions sources by requiring the use of proposed SCAQMD Risk Assessment Procedures Version 8.1 in risk assessments for all new and modified spray booths and GDFs. This Version 8.1 also proposes to incorporate all of ARB's updates to GDF speciation profiles and emissions factors except for one: the factor for refueling of ORVR-equipped vehicles by Phase II-equipped pumps. ARB has determined that refueling of non-ORVR-equipped vehicles by Phase II nozzles results in VOC emissions of 0.42 pound/1,000 gallons of gasoline throughput, and that refueling of ORVR-equipped vehicles by Phase II nozzles results in a lower emissions profile of 0.021 pound/1,000 gallons gasoline throughput. Here, the District's Version 8.1 of the Risk Assessment Procedures proposes an emission factor of 0.42 pound/1,000 gallons gasoline throughput for refueling of ORVR vehicles or non-ORVR vehicles at a Phase II nozzle. This would assume that addition of ORVR control provides no emissions benefit whatsoever in reducing refueling emissions at a Phase II pump.

¹ The ARB 2013 GDF Factors document and its attachments are available on ARB's website at <https://www.arb.ca.gov/vapor/gdf-emisfactor/gdf-emisfactor.htm>.

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This would flatly contradict ARB's studied finding in the 2013 ARB GDF Factors document. As a result of its multi-year analysis and study of GDF VOC emissions, ARB concluded that, while ORVR systems average 95% capture efficiency of gas tank emissions during refueling (i.e., capture of vapors in the onboard carbon canister for routing to the engine), the **additional** use of a Phase II nozzle (which has its own 95% control efficiency) will prevent escape of most of these remaining uncaptured vapors into the atmosphere. *See* ARB 2013 GDF Factors, Attachment 1, p. 7 (95% control efficiency of Phase II provides additional benefit to 95% control of ORVR).

Empirical evidence of the significant compound effect of multiple vapor controls was established in a 2008 ARB empirical study of emissions from ORVR-equipped vehicles during refueling. ARB's study found that the addition of Phase II controls to ORVR control provided roughly **an order of magnitude improvement** in emission reduction, versus ORVR control **without** Phase II. *See* California Air Resources Board, *Measurement of Gasoline Vapor Emissions From Vehicles Equipped with On Board Vapor Recovery*, p. 15, Table 7 (July 24, 2008).² The table reproduced below from ARB's 2008 study summarized the data comparing the two emissions scenarios:

(see next page...)

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² The 2008 ARB study can be found on ARB's website at <http://www4.aqmd.gov/enewsletterpro/uploadedimages/000001/Celia/1401/orvrtestreport072408.pdf>

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Table 7
Emissions data for ORVR Vehicles from ARB tests at gasoline dispensing facilities and from EPA/Manufacturer SHED tests

Emission Measurements	Emissions, lbs per 1000 gallons dispensed		
	CaRFG3 Summer Fuel 6.9 RVP	Federal Test Procedure Fuel, 9 RVP	CaRFG3 Winter Fuel, 11.9 RVP
ARB Test Procedure 201.2 at gasoline dispensing facilities			
Fillpipe, no Phase II, mean ± standard deviation (This study)	0.043 ± 0.08		0.094 ± 0.18
Average odometer reading, miles, for vehicles in this study, 2006 – 2007 model years.	13,400		14,100
Fillpipe, with Phase II EVR (Average of two ARB studies.) ^f			0.01
Estimated reduction of fillpipe emissions for ORVR vehicle with Phase II control (winter fuel, RVP not specified) ^g			0.09
EPA/Manufacturers ORVR vehicle emissions measurement according to the Federal Test Procedure			
Fillpipe and on-board canister emissions ± std deviation (Average for 337 dispensing events) ^h		0.25 ± 1.15	
Average odometer reading, miles		19,100	
Number of vehicles failing the 0.2 gram/gallon ORVR standard = 17, or 5.3% of vehicles tested			

As ARB’s data show, VOC fillpipe emissions during refueling of CaRFG Winter Fuel at a non-Phase II equipped nozzle were estimated to be roughly 0.1 pound/1,000 gallons gasoline throughput (data line 1), while VOC fillpipe emissions during refueling of CaRFG Winter Fuel at a Phase II-equipped nozzle were estimated at 0.01 pound/1,000 gallons gasoline throughput (data line 3). Thus, according to ARB, the addition of Phase II control when refueling an ORVR-equipped vehicle improved the overall VOC capture efficiency by 10 times over use of ORVR alone. This squarely contradicts the District’s use of the same emissions factor (0.42) for ORVR + Phase II and for ORVR alone.

2-2

In September 2011, ARB again concluded in a White Paper responding to EPA’s proposed “widespread use” finding and Stage II waiver that the use of ORVR together with Phase II control significantly reduced refueling emissions versus use of ORVR alone. ARB noted that emissions of hydrocarbon VOCs when refueling a non-ORVR vehicle from a Phase II pump were nearly 40 times higher (0.38 pound/1,000 gallons gasoline dispensed) than when ORVR control is added (0.01

2-3

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pound/1,000 gallons gasoline dispensed), as shown in the below excerpt from the White Paper:

Table 2
 Emission Factors for Vehicle Fueling Operations
 (pounds of hydrocarbon per thousand gallons dispensed)

Vapor Displaced From Vehicle Fuel Tank				Drip, Spill & Liquid Retention		Pressure Driven Emissions From Underground Storage Tank	
With Phase II		Without Phase II		EVR	Non-EVR	EVR	Non-EVR
ORVR	Non-ORVR	ORVR	Non-ORVR				
0.01	0.38	0.07	7.5	0.24	0.42	0.0045	0.044

See ARB White Paper, *Preliminary Analysis of U.S. EPA's Proposed Rule on Onboard Refueling Vapor Recovery Widespread Use Determination and California's Enhanced Vapor Recovery Requirements*, p. 6 (Sept. 8, 2011).³ In its letter to EPA accompanying the White Paper, ARB argued against the removal of Phase II EVR requirements in California despite EPA's finding of ORVR "widespread use," noting that "(ORVR) and Stage II (Phase II) are *both* designed to control the vehicle refueling emissions and *both* are effective." See Letter from James Goldstene to EPA Air and Radiation Docket and Information Center, p. 1 (Sept. 8, 2011).⁴

2-3

To date, District staff have provided no empirical data or evidence to substantiate their rejection of the ARB 2013 GDF emission factor for ORVR/Phase II refueling, nor has the District provided evidence or data to refute ARB's empirical analyses. In the public workshops on this rule, District staff have repeatedly asserted that they are "confident" that the ARB emissions factor is based on "double counting" of emissions controls. Staff further assert that their conclusion is based on an "engineering disagreement" with ARB. But District staff have not presented any empirical emissions data to support these assertions, nor has ARB provided any public response to date as to the validity of District staff's claims.

2-4

We believe it is problematic from a policy perspective for the District to adopt an emission factor in direct contravention of an emissions factor set by ARB based on empirical evidence and years of analysis, particularly where the District is unable to

³ The White Paper and accompanying ARB letter to EPA can be found on ARB's website at <https://www.arb.ca.gov/vapor/carb%20response%20useap%20orvr%20widespread%20use%20nprm.pdf>.

⁴ See link above for copy of ARB letter to EPA.

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produce data or evidence of its own to justify the rejection of ARB's findings. When the District disagrees with ARB over engineering conclusions that are amenable to **empirical** determination – especially as to emissions factors that should have uniform statewide applicability – we believe it is incumbent on District staff to work out their differences with ARB and ultimately defer to evidence and data.

2-4

We also believe that it is potentially dangerous ground for District staff to take a position suggesting that Phase II controls have **zero** benefit to controlling refueling emissions versus use of ORVR alone. This position would have farther-reaching consequences for the District than just in this rulemaking. As the District knows, California opposed EPA's "widespread use" determination. Indeed, in the 2016 Air Quality Management Plan, the District has **already** taken Basinwide credit for emissions reductions from GDFs by applying the suite of ARB 2013 GDF Factors (see 2016 AQMP, Appendix III, pp. III-1-15 to III-1-16),⁵ putting the District in the position of potentially contradicting its own AQMP by only selectively adopting **some** but not all of the ARB 2013 GDF Factors.

2-5

2-6

As we have explained in the public workshops and working groups on PAR 1401, Costco wholeheartedly agrees with the District's adoption of the ARB 2013 GDF Factors, but simply believes that the available data from ARB supports adoption of **all** of the ARB factors, including the ORVR/Phase II factor. Costco agrees with District Staff's position that the GDF emissions factors **themselves** do not require actual rulemaking, so we believe this one remaining oversight can and should be remedied by District Staff – if not in conjunction with this rulemaking, then immediately following it.

Everyone – the District, regulated entities, and the public – has a strong interest in ensuring accurate emissions inventories from the thousands of GDFs across California. We all have a shared interest in ensuring evidence- and science-based rulemaking. Unlike many of the policy debates that can sometimes emerge from rulemaking, empirical issues like this can and should be resolved definitively and cooperatively, in order to avoid unnecessary administrative work fixing those issues later. As always, Costco remains committed to working with the District to address these issues quickly and efficiently, so that both the public and the regulated community have an accurate picture of the significant emissions reduction progress at gasoline pumps throughout the District.

2-7

⁵ The District's AQMP, Appendix III, is available at <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-iii.pdf?sfvrsn=6>.

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Thank you again for the opportunity to work together with the District on this important Rule revision.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Michael S. McDonough".

Michael S. McDonough

Response to Comment 2-1

As noted, staff from several districts including SCAQMD participated as part of the California Air Pollution Control Officer Association (CAPCOA) Vapor Recovery Subcommittee in the review of CARB's revised emission factors. At the time of release, CARB is also committed to continue its efforts to revise the newly released emission factors.

Response to Comment 2-2

SCAQMD staff agrees that the ORVR system averages a 95% control efficiency of gas tank emissions during refueling, but disagrees that the use of a Phase II nozzle could further control all emissions escaping from the ORVR system.

The ORVR system has mechanisms to prevent vapor within a vehicle fuel tank from escaping via the fillpipe of the vehicle (i.e. a narrowed fillpipe to form a liquid barrier and a mechanical valve at the end of the fillpipe). The vapor that would have otherwise escaped through the fillpipe is directed to a carbon canister, which is the actual means of emission control of the ORVR system, to adsorb hydrocarbons contained in the displaced vapor.

SCAQMD staff carefully reviewed the 2008 ARB study referenced by the commenter. The 2008 CARB study was conducted at an "ambient environment" (i.e. at a gasoline dispensing facility for a rental vehicle company). While the test was designed to evaluate fillpipe emissions, the study could not capture emissions from the on-board canister of the ORVR system. As the commenter correctly pointed out, the top part of Table 7 lists the fillpipe emissions of refueling ORVR vehicles. SCAQMD agrees that for emissions that pass through the fillpipe, they would be controlled by the Phase II-equipped nozzle.

The key to the different interpretations of the 2008 ARB study between the commenter and SCAQMD staff is that the study focuses on fillpipe emissions. As discussed above, the 2008 emission tests were conducted at the fillpipe exhaust where exhaust from the ORVR canister is not detected. Therefore, the 2008 study does not present total refueling emissions, which include emissions from both the fillpipe and the on-board canister for ORVR vehicles. Indeed, the bottom part of Table 7 lists the source test results from EPA/manufactures ORVR vehicle emissions measurement according to the Federal Test Procedure. Unlike the 2008 CARB study, which was conducted in ambient conditions, the EPA tests were conducted using a sealed housing emissions device (SHED), where emissions from both the fillpipe and the on-board canister were monitored. The EPA study tested for 337 dispensing events. The fillpipe and on-board canister emissions together averaged to 0.25 lbs per 1,000 gallons. The table further shows a standard deviation of 1.15 which indicates the control efficiency of individual vehicle tested varies significantly from the average emissions of 0.25 lbs. per 1,000 gallons.

The SCAQMD staff believes that there is a small amount of vapor that the Phase II EVR system will control during refueling of an ORVR vehicle. SCAQMD staff has been in communication with CARB staff regarding the refueling emissions factor. Both agencies agree that additional time is needed to better understand emission reductions from Phase II EVR for ORVR vehicles. SCAQMD staff is recommending not to incorporate CARB's 2013 revised emission factor for Phase II refueling of ORVR vehicles, but to continue the use of SCAQMD's current emission factor of 0.32 lbs per 1,000 gallons for refueling. Staff is recommending the use of CARB's 2013 emission factors for all other categories (loading, breathing, spillage, and hose permeation).

SCAQMD staff is committed to continue working with CARB staff to refine the emission estimates for Phase II refueling with ORVR vehicles and will return to the Board with future revisions to refueling emission factors.

Response to Comment 2-3

SCAQMD staff agrees that “(ORVR) and Stage II (Phase II) are both designed to control the vehicle refueling emissions and both are effective.” As discussed in the staff report, Phase II EVR is needed for non-ORVR vehicles to achieve the additional VOC reductions of 14.7 tons per day in the year of 2020, and 8.8 tons per day in the year 2028 and beyond. Also, California’s Phase II program includes other emission control features, such as in-station diagnostics (ISD) and standards for nozzle liquid retention, driplless nozzle and spillage, in addition to the control of the vapors displaced during vehicle refueling. Thus, it achieves greater emission reductions than the federal Stage II program requirements, and the improvement it provides is essential to meet mandated federal ambient air quality standards. While both the ORVR and Phase II vapor recovery systems are effective, they target different fleets (ORVR vehicles vs. non-ORVR vehicles respectively) and different processes (ORVR controls refueling and evaporative emissions as compared to Phase II EVR, which controls emissions at the fillpipe as well as nozzle operations such as spillage, drips, and liquid retention, and provides early diagnostic information via ISD).

Response to Comment 2-4

Staff released the proposed emission factors for gasoline dispensing facilities in the first working group meeting, and provided the technical justification in the second working group.

Furthermore, as discussed in Response to Comment 2-3, the 2008 CARB study only measured fillpipe emissions, while the EPA SHED study captured both fillpipe and on-board canister (from the ORVR vehicles) emissions. It is also important to point out that CARB’s Phase II emission factor includes pressure driven losses from the storage tanks at a GDF. Whereas, the EPA SHED study does not include such emissions.

As discussed in Comment 2-2, SCAQMD staff is committed to working with CARB staff on the refueling emission factor. Until then, SCAQMD staff is recommending not to incorporate CARB’s 2013 revised emission factor for Phase II refueling of ORVR vehicles, but to continue the use of SCAQMD’s current refueling emission factor of 0.32 lbs per 1,000 gallons.

Response to Comment 2-5

See Response to Comment 2-3.

Response to Comment 2-6

An emission inventory is a live document that gets updated when new information is available. For each AQMP, the emission inventory is developed using the best available information at the time of the development. For the 2016 AQMP, the emission inventory was “frozen” in late 2015 to allow time for conducting the modeling analyses. At that time, SCAQMD staff was having

ongoing discussions with CARB staff on the concerns regarding the emission factors for refueling and spillage.

Information necessary to produce the emission inventory for the South Coast Air Basin is obtained from the SCAQMD and other governmental agencies, including CARB, the California Department of Transportation (Caltrans), and the Southern California Association of Governments (SCAG). While SCAQMD is responsible for developing the emission inventory for stationary sources, CARB is the agency responsible for developing the emissions inventory for gasoline dispensing facilities.

In addition, the attainment of the 2008 ozone standard mainly relies on NO_x reductions. Even if the VOC emission reductions from Phase II refueling were overestimated, the change in VOC would not have resulted in significant impacts on the ozone concentrations in the design sites in the attainment year. More details about the ozone modeling approach and the ozone isopleths can be found in in the 2016 AQMP (Appendix V - Modeling and Attainment Demonstration, Attachment 4 8-hour Ozone Isopleths for 2031).

Response to Comment 2-7

SCAQMD staff agrees with the comment that this rulemaking should move forward and that once CARB and SCAQMD staff agree on an emission factor for refueling, the emission factor in the Risk Assessment Procedures can be updated at a later time. SCAQMD staff is committed to continue working with CARB staff to refine the emission factor for Phase II refueling.



California Independent Oil Marketers Association
 3835 North Freeway Blvd., Suite 240
 Sacramento, CA 95834-1955
 916.646.5999

Susan Nakamura
 Assistant Deputy Executive Officer
 South Coast Air Quality Management District
 21865 Copley Drive
 Diamond Bar, CA 91765

Via e-mail at: snakamura@aqmd.gov

Re: Proposed Amended Rule 1401

Dear Ms. Nakamura:

CIOMA appreciates this opportunity to provide feedback on South Coast Air Quality Management District (SCAQMD) Proposed Amended Rule 1401 and associated documentation.

The California Independent Oil Marketers Association (CIOMA) represents about 300 members, including nearly 90% of all the independent petroleum marketers in the state and about one quarter of the state's 10,000 service stations. Our members provide services to local governments, law enforcement, city and county fire departments, ambulances/emergency vehicles, school district bus fleets, construction firms, marinas, public and private transit companies, hospital emergency generators, trucking fleets, independent fuel retailers (small chains and mom-and-pop gas stations) and California agriculture, among others.

CIOMA and the other trade associations signed on the letter would like to reiterate our earlier concerns about SCAQMD's abbreviated rule development schedule, and urge the District to allow sufficient time for adequate review and comment of proposals in the future.

3-1

We appreciate the information that District Staff released on August 9 identifying that they will not be increasing their refueling emission factor for gasoline dispensing facilities (as had been identified in previous Working Group meetings). We urge SCAQMD to lower that emission factor in light of the fact that it has been well documented that the current factor (i.e. 0.32 lb/1000 gallons dispensed) is overly conservative. Roughly 90% of all gasoline is dispensed to vehicles equipped with onboard refueling vapor recovery (ORVR)¹ (and that percentage continues to increase). Furthermore, extensive testing by both EPA and the California Air Resource Board (ARB) has shown that refueling emissions from ORVR-equipped vehicles—without taking credit for any additional reductions associated with Phase II vapor recovery—are considerably lower than 0.32 lb/1000 gal. Prior EPA analysis of 1,160 tests conducted within a Sealed Housing for Evaporative Determination determined that average refueling emissions from ORVR-equipped vehicles were just 0.068 g/gal = 0.15 lb/1000 gal². Prior ARB tests reported

3-2

¹ The 90% estimate is from ARB (George Lew), "Updated ORVR Penetration Calculations", memorandum to Joe Guerrero (ARB), July 11, 2006, Table 1.

² EPA (Glenn Passavant, Office of Transportation and Air Quality), "ORVR In-Use Efficiency Assessment", memo to Public Docket EPA-HQ-OAR-2010-1076, March 29, 2011.

that refueling emissions from ORVR-equipped vehicles as 0.043 lb/1000 gal for California summer fuel and 0.094 lb/1000 gal for California winter fuel.³ The District should not continue to ignore these data.

} 3-2

At yesterday's Working Group, ARB staff indicated their intension to revise the refueling emission factor to consider these ORVR test data by the end of the year. Given the pending revisions, we strongly recommend that SCAQMD retain Version 7.0 of the "Risk Assessment Procedures for Rules 1401, 1401.1 and 212" for gasoline dispensing facilities until all of the relevant emission factors can be updates. Based on ARB's representations, that update should be possible by the end of the year.

} 3-3

If you have any questions, please contact me at (916) 646-5999 or by email at bayless@cioma.com.

Sincerely,

Samuel Bayless
Regulatory Issues Specialist
California Independent Oil Marketers Association



Western States Petroleum Association



³ ARB, "Measurement of Gasoline Vapor Emissions from Vehicles Equipped with On-Board Vapor Recovery", Project Number V-08-012, July 24, 2008.

Response to Comment 3-1

PAR 1401 has followed a standard rule development schedule providing a draft rule and preliminary draft staff report 75 days before the public hearing. The revisions to the proposed rule are relatively small. The revisions to the SCAQMD Risk Assessment Guidelines are on less than 10 pages. The SCAQMD staff has worked with stakeholders to provide additional technical justification. Please see Response to Comment 1-1 for more details on the development schedule of PAR 1401.

Response to Comment 3-2

In the fourth Working Group Meeting on August 16, 2017, CARB staff presented some new information suggesting that CARB's 2013 emission factor of 0.021 lbs per 1,000 gallons for Phase II refueling of ORVR vehicles underestimates the emissions. CARB is committed to preparing a draft addendum to revise the emission factor, which will likely be higher than CARB's 2013 estimates. SCAQMD staff is proposing that the Version 7.0 refueling emission factor which is the current SCAQMD refueling emission factor of 0.32 lbs per 1,000 gallons continue to be used for Phase II refueling in the proposed Risk Assessment Procedures (Version 8.1), as presented in the Draft Staff Report released on August 2, 2017. Once CARB finalizes the refueling emission factor, SCAQMD staff will return to the Stationary Source Committee within 30-days and the Board as soon as practicable with the revised refueling emission factor.

In addition, based on staff's review of gasoline dispensing facilities that were permitted over a five-year period, using the 2013 emission factors with the previously proposed emission factor of 0.42 lbs per 1,000 gallons (includes emissions from refueling and breathing), combined with the 2015 OEHHA Guidelines and updated meteorological data (Risk Assessment Procedures (Version 8.1)) resulted in no impacts to gasoline dispensing facilities that were modified and less than four percent impact to new gasoline dispensing facilities (less than one new gasoline dispensing facility per year). For the approximately less than 1 per year of new gasoline dispensing facilities that are potentially impacted, there are several compliance options: If they want to retain their requested throughput they can conduct a higher tier risk analysis which is approximately \$15,000, re-orient their refueling pumps further from sensitive land uses such as residences, schools, and day cares, or lower their throughput request. In addition, since staff's analysis of the impacts was based on 0.42 lbs per 1000 gallons, the impacts to gasoline dispensing facilities using the recommended current refueling emission factor of 0.32 lbs per 1,000 gallons would be less than what was analyzed in the Draft Staff Report.

Response to Comment 3-3

CARB intends to prepare a draft addendum to revise the refueling emission factor, which will need to go through CARB's internal review, CAPCOA review, and a public review and comment period prior to finalization. In the June 2015 amendment to Rule 1401 all sources except spray booths and gasoline dispensing facilities were required to use the 2015 OEHHA Guidelines and staff committed to return with procedures to address spray booths and gasoline dispensing facilities as expeditiously as possible so as to level the playing field for all sources. The proposed Risk Assessment Procedures (Version 8.1) incorporates not only the gasoline refueling emission factor,

but also the 2015 OEHHA Guidelines, updated gasoline speciation profile, and updated meteorological data. As described in the Resolution for Proposed Amended Rule 1401, SCAQMD staff is committed to returning to the Stationary Source Committee within 30 days after CARB finalizes revisions to the refueling emission factor for Phase II EVR and ORVR systems and to return to the Governing Board as quickly as practicable with revisions to update the SCAQMD Risk Assessment Procedures for Rules 1401, 1401.1, and 212 to reflect the refueling emission factor revisions from CARB.

ATTACHMENT H



South Coast Air Quality Management District

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

SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

PROJECT TITLE: PROPOSED AMENDED RULE 1401 - NEW SOURCE REVIEW OF TOXIC AIR CONTAMINANTS

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and has prepared a Notice of Exemption for the project identified above.

SCAQMD staff has reviewed the proposed amendments to Rule 1401 – New Source Review of Toxic Air Contaminants pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA.

SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed amendments to Rule 1401 may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 - Notice of Exemption. If the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Sam Wang (c/o Planning, Rule Development and Area Sources) at the above address. Mr. Wang can also be reached at (909) 396-2649. Ms. Kalam Cheung is also available at (909) 396-3281 to answer any questions regarding the proposed amended rule.

Date: August 11, 2017

Signature:

A handwritten signature in black ink, appearing to read "Barbara Radlein".

Barbara Radlein
Program Supervisor, CEQA Section
Planning, Rules, and Area Sources

NOTICE OF EXEMPTION

To: County Clerks Counties of Los Angeles, Orange, Riverside and San Bernardino	From: South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765
--	---

Project Title: Proposed Amended Rule (PAR) 1401 - New Source Review of Toxic Air Contaminants

Project Location: The SCAQMD has jurisdiction over the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The SCAQMD's jurisdiction includes the federal nonattainment area known as the Coachella Valley Planning Area, which is a sub-region of Riverside County and the SSAB.

Description of Nature, Purpose, and Beneficiaries of Project:

In 2015, the SCAQMD's Governing Board amended Rule 1401 and approved the corresponding SCAQMD Risk Assessment Procedures (Version 7.0) which incorporated the use of the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Risk Assessment Guidelines (2015 OEHHA Guidelines) when estimating health risks. However, two source categories, spray booths and gasoline dispensing facilities, were excluded from the 2015 amendments to Rule 1401 to allow staff additional time to evaluate the potential permitting impacts of using the 2015 OEHHA Guidelines to estimate health risks for these source categories per the requirements in Rule 1401 subparagraphs (e)(3)(A) and (e)(3)(B). PAR 1401 is proposing to remove the exemption and require spray booths and gasoline dispensing facilities to begin using the proposed SCAQMD Risk Assessment Procedures (Version 8.1), which incorporates: 1) 2015 OEHHA Guidelines; 2) revised gasoline dispensing emission factors and speciation profiles; and 3) current air dispersion model (AERMOD) and updated meteorological data. Additionally, PAR 1401 will update the list of toxic air contaminants in Table I of Rule 1401 to be consistent with the current list used by OEHHA.

Public Agency Approving Project:

South Coast Air Quality Management District

Agency Carrying Out Project:

South Coast Air Quality Management District

Exempt Status:

CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule

Reasons why project is exempt: SCAQMD staff has reviewed PAR 1401 pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. To comply with PAR 1401 requirements, new and modified spray booths would require more efficient filters to control emissions and new and modified gasoline dispensing facilities may either comply by requesting a lower throughput, or by increasing the distance to the nearest residential receptor, or by conducting a Tier 3 or Tier 4 analysis. In any event, there would be no physical change to gasoline dispensing facilities and very minimal physical change to spray booths due to implementing PAR 1401. Therefore, SCAQMD staff has determined that it can be seen with certainty that there is no possibility that PAR 1401 may have a significant adverse effect on the environment. Thus, PAR 1401 is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule.

Date When Project Will Be Considered for Approval (subject to change):

SCAQMD Governing Board Hearing: September 1, 2017; SCAQMD Headquarters

CEQA Contact Person:	Phone Number:	Email:	Fax:
Mr. Sam Wang	(909) 396-2649	swang1@aqmd.gov	(909) 396-3982

Rules Contact Person:	Phone Number:	Email:	Fax:
Ms. Kalam Cheung	(909) 396-3281	kcheung@aqmd.gov	(909) 396-3324

Date Received for Filing: _____ **Signature:** _____ *(Signed Upon Board Approval)*

Barbara Radlein
Program Supervisor, CEQA Section
Planning, Rule Development & Area Sources

South Coast Air Quality Management District



RISK ASSESSMENT PROCEDURES

for Rules 1401, 1401.1 and 212

Version 8.1

September 1, 2017

Preface

This document describes the procedures for preparing risk assessments under Rule 1401 - New Source Review of Toxic Air Contaminants, Rule 1401.1 - Requirements for New and Relocated Facilities Near Schools, and Rule 212 – Standards for Approving Permits and Issuing Public Notice. This version of the Risk Assessment Procedures for Rules 1401, 1401.1 and 212 updates the previous Version 8.0 which was updated in 2015 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 OEHHHA Guidelines). This is intended to be a "living" document, which staff will update periodically with updated meteorological data and dispersion model versions. This preface and the summary table provide an easy reference to identify the changes between versions of the SCAQMD’s Risk Assessment Procedures and Attachments containing the screening tables. The major revisions to this document (Version 8.1) from the previous version (Version 8.0) include:

- Revising the emission factors and speciation profiles for gasoline dispensing facilities (refer to Appendix X);
- Adding screening tables for spray booth sources (refer to Appendix XI and Attachment N, Tables 13.1 – 13.3);
- Updating the meteorological data for all screening tables (refer to Appendix VI); and
- Updating the list of TACs approved by OEHHHA subject to Rule 1401 (refer to Attachment N);
- Reorganization of tables in Attachment N for ease of use.

Summary of Changes

SCAQMD Risk Assessment Procedures	Version 8.1	Version 8.0	Version 7.0
Date of Rule 1401 Adoption	September 1, 2017	June 5, 2015	March 4, 2005
Applies to Permit Applications Deemed Complete On Or After	October 1, 2017	July 5, 2015	July 1, 2005
OEHHA Reference Document	Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, adopted on March 6, 2015	Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, adopted on March 6, 2015	Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, finalized in August 2003
SCAQMD Permit Application Package	Attachment N	Attachment M (does not apply to spray booths or gasoline dispensing facilities)	Attachment L
Dispersion Model	AERMOD (Version 16216r)	AERMOD (Version 14134)	ISC-ST3 (Version 99155)
Meteorological Data Model	AERMET (Version 16216)	AERMET (Version 14134)	N/A
Meteorological Data Years	2010-2016	2006-2012	1981

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ATTACHMENT:

PERMIT APPLICATION PACKAGE “N”

(Also referred to as Attachment N)

For use in conjunction with Risk Assessment Procedures (Version 8.1)

INTRODUCTION

Risk assessment procedures, including procedures for a simple risk screening, were originally developed by South Coast Air Quality Management District (SCAQMD) staff for the adoption of Rule 1401 - New Source Review of Toxic Air Contaminants, in June 1990. Since that time, this document has been revised several times to reflect updated risk assessment methodologies.

The purpose of this document is to:

- Assist applicants and engineers to evaluate Rule 1401 and 1401.1 compliance;
- Provide explanations and sample risk calculations; and
- Provide industry worksheets.

This document describes the procedures for preparing risk assessments under Rule 1401 and Rule 212 – Standards for Approving Permits and Issuing Public Notice. It also applies to Rule 1401.1 – Requirements for New and Relocated Facilities Near Schools for sources located near schools. It is intended to be a "living" document. That is, as new Toxic Air Contaminants (TACs) are added, risk values changed, or procedures revised, the document will be updated. This version of “Risk Assessment Procedures for Rules 1401, 1401.1 and 212” is based on the “Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments” (2015 OEHHA Guidelines) prepared by the Office of Environmental Health Hazard Assessment (OEHHA) and approved on March 6, 2015. The 2015 OEHHA Guidelines, which may be found at: <https://oehha.ca.gov/air/crnrr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>, supersedes OEHHA’S 2003 version of risk assessment guidelines. The 2015 OEHHA Guidelines incorporates age sensitivity factors which will increase cancer risk estimates to residential and sensitive receptors by approximately three times, and more than three times in some cases depending on whether the TAC has multiple pathways of exposure in addition to inhalation. Under the 2015 OEHHA Guidelines, even though the toxic emissions from a facility have not increased, the estimated cancer risk to a residential receptor will increase. Cancer risks for off-site worker receptors are similar between the existing and revised methodology because the methodology for adulthood exposures remains relatively unchanged.

SCAQMD’s Risk Assessment Procedures (Version 8.0) was updated June 2015 to incorporate the 2015 OEHHA Guidelines. Spray booths and gasoline dispensing facilities were exempted under Rule 1401 from using Version 8.0 to allow SCAQMD staff more time to assess the permitting impacts with this change. Version 8.1 (this current document) uses the same risk assessment procedures as Version 8.0, but now includes spray booths and gasoline dispensing facilities to reflect amendments to Rule 1401 in 2017.

Background

There are four steps involved in the risk assessment process; 1) hazard identification, 2) exposure assessment, 3) dose-response assessment, and 4) risk characterization. Each step is briefly discussed below.

Hazard Identification

For air toxics sources, hazard identification involves determining the type of adverse health effect associated with exposure of the pollutant of concern emitted by a facility, including whether a pollutant is considered a human carcinogen or a potential human carcinogen.

Exposure Assessment

The purpose of exposure assessment is to estimate the extent of public exposure to emitted substances for potential cancer, non-cancer health hazards for chronic and acute, and repeated 8-hour exposures. This involves estimation of long-term (annual), short-term (1-hour maximum), and 8-hour average exposure levels.

Dose-Response Assessment

Dose-response assessment is the process of characterizing the relationship between exposure to a chemical by its modeled concentration. Dose can be calculated as follows:

$$\text{Dose} = \text{Concentration} \times \text{Exposure}$$

Risk Characterization

This is the final step of the risk assessment in which the information from exposure assessment and dose-response assessment are combined to assess total risk to the surrounding community.

SCAQMD Rule 1401 History

Rule 1401, adopted June 1, 1990 and amended December 7, 1990, specified limits for Maximum Individual Cancer Risk (MICR) and excess cancer cases for new, relocated, or modified equipment which emits carcinogenic air contaminants. The rule was amended July 10, 1998 to include non-carcinogenic compounds. The rule was amended on March 17, 2000 to remove the requirement to assess cumulative risk from emissions from units permitted after 1990 that are located within 100 meters of the new equipment under evaluation for permit. And, the rule has been amended several times to change the list of regulated compounds (both additions and deletions) and their corresponding risk values (cancer potency factors and reference exposure levels). Most recently, Rule 1401 was amended on June 5, 2015 to incorporate the 2015 OEHHA Guidelines for calculating health risks.

Requirements

This document describes the procedures for determining cancer and non-cancer health effects for equipment subject to Rules 1401, 1401.1, and 212.

In general, these rules apply only if there is an increase in TAC emissions from new, relocated, or modified equipment. Details regarding applicability of these rules to facilities or equipment can be found within the rules themselves at: <http://www.aqmd.gov/home/regulations/rules/scaqmd-rule-book>.

Under Rule 1401, the following requirements must be met before a permit is granted for affected equipment.

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- The cumulative increase from all TACs emitted from a single piece of equipment in MICR shall not exceed:
 - one in one million (1.0×10^{-6} or 1E-06) if Best Available Control Technology for Toxics (T-BACT) is not used; or,
 - ten in one million (10×10^{-6} or 10E-06) if T-BACT is used;
- The cumulative cancer burden from all TACs emitted from a single piece of equipment (increase in cancer cases in the population) shall not exceed 0.5; and,
- Neither the Chronic Hazard Index (HIC), the 8-hour Chronic Hazard Index (HIC8), nor the total Acute Hazard Index (HIA) from all TACs emitted from a single piece of equipment shall exceed 1.0 for any target organ system, or an alternate hazard index level deemed to be safe.

Rule 1401.1 is designed to be more health protective for school children than Rule 1401 by establishing more stringent risk requirements related to facility-wide cancer risk and non-cancer HIA and HIC for new and relocated facilities emitting TACs near schools, thereby reducing the exposure of toxic emissions to school children. For new facilities, the rule requires the facility-wide cancer risk to be less than one in one million at any school or school under construction within 500 feet of the facility. If there are no schools within 500 feet, the same risk levels must be met at any school or school under construction within 500 to 1,000 feet unless there is a residential or sensitive receptor within 150 feet of the facility. For relocating facilities, the facility must demonstrate, for each school or school under construction within 500 feet of the facility, that either: 1) the risk at the school from the facility in its new location is no greater than the risk at that same school when the facility was at its previous location, or 2) the facility-wide cancer risk at the school does not exceed one in one million. Unlike other SCAQMD risk-based rules, the required risk thresholds of Rule 1401.1 do not change based on whether or not the source is equipped with T-BACT.

Rule 212 also applies to Rule 1401 exempt sources. Rule 212 (c)(3) requires public notification if the MICR, based on Rule 1401 risk assessment procedures, exceeds one in one million, due to a project's proposed construction, modification, or relocation for facilities with more than one permitted equipment unless the applicant can show the total facility-wide MICR is below ten in a million. For facilities with a single permitted piece of equipment, the MICR level must not exceed ten in a million. The circulation and distribution of the notifications must meet the criteria in Rule 212.

OVERVIEW

This document provides several tiers for preparing a risk assessment, from a quick look-up table to a detailed risk assessment involving air quality dispersion modeling analysis. Permit applicants may use any of these tiers to demonstrate compliance with the risk limits of Rule 1401. The applicant should include a copy of the risk assessment, including all electronic modeling files, with the permit application.

The tiers are designed to be used in order of increasing complexity with each higher tier providing a more refined estimate of risk than the lower tier. If compliance cannot be demonstrated using one tier, the permit applicant may proceed to the next tier. A permit applicant who can show compliance by using a lower tier does not need to perform an analysis for the higher tiers. In general, for most permits a detailed analysis is not required. The tiers are:

- Tier 1: Screening Emission Levels
- Tier 2: Screening Risk Assessment
- Tier 3: Screening Dispersion Modeling
- Tier 4: Detailed Risk Assessment

Please note that the 2015 OEHHA Guidelines “Tier” approach differs from these SCAQMD Risk Procedures “Tier” compliance. The OEHHA Tiers refer to the incorporation of stochastic modeling for the facility and population specific exposure parameters. In contrast, the SCAQMD Tiers refer to increasing complexity for deriving pollutant concentrations based on facility emissions. Regulatory compliance may be demonstrated with any SCAQMD Tier.

In addition, this document briefly discusses the T-BACT identification process for Rule 1401.

PRELIMINARY TASKS

Before conducting any of these risk assessment tiers, three preliminary tasks must be performed:

1. **Determine if the permitting action or equipment is exempt from the provisions of Rule 1401.** Exemptions are granted for:
 - Permit renewal or change of ownership;
 - Modifications with no increase in risk;
 - Functionally identical equipment replacement;
 - Equipment previously exempt under Rule 219 - Equipment not Requiring a Written Permit Pursuant to Regulation II and filing for a permit to operate within one year of removing the Rule 219 exemption;
 - Modifications to terminate research projects; and
 - Emergency internal combustion engines (ICEs) exempt under Rule 1304 - Exemptions.

An additional exemption is granted for demonstrations of contemporaneous emission reductions such that no receptor experiences a total increase in MICR of greater than one in one million and the contemporaneous reduction occurs within 100 meters of the equipment. If the equipment falls under one of these exemptions, no further risk assessment is required.

2. **Identify the TACs emitted by the permit unit.** The risk assessment must include those TACs emitted by the permit unit which were listed in the rule when the permit application was deemed complete by SCAQMD staff (refer to Table I of Rule 1401). The first table in the Attachment lists the TACs subject to Rules 1401, 1401.1 and Rule 212. Determine the date on which the application was deemed complete and refer to the appropriate Attachments.

Default toxic emission factors for TACs associated with combustion equipment have been developed for use in the AB2588 Program¹. If better source specific data is available, such as

¹SCAQMD’s Supplemental Instructions are available on the SCAQMD website at:
<http://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/supplemental-instructions-for-ab2588-facilities.pdf>

SCAQMD approved source tests, manufacturer's data, or fuel analysis, it should be used rather than the default emission factors.

If no TACs listed in the applicable version of Rule 1401 are emitted by the equipment, no further risk assessment is required.

- 3. Estimate the quantity of emissions from the permit unit.** The appropriate emission estimation technique depends on the type of source. Techniques include emission testing, a mass balance or other engineering calculation, or emission factors for specific types of processes. The emissions used for the risk calculation should be post-control emissions (that is, reductions in emissions due to enforceable controls and permit conditions should be taken into account). SCAQMD Engineering and Permitting staff should be consulted regarding approved techniques for identifying toxic air contaminants and estimating emissions for specific sources.

The SCAQMD also has a broader mandate to ensure that permits are not granted to facilities which may endanger public health (California Health and Safety Code Section 41700). In addition, under Rule 212, the applicant may be required to evaluate other compounds that are determined to be potentially toxic. Therefore, an applicant may be required to evaluate risks from compounds not listed in the Attachment as part of the permitting process if they are a concern for a specific source. These may include substances with irritant effects or other adverse health effects.

DEFINITIONS

Before proceeding, it is important to understand some of the terms used when performing a health risk assessment. These terms are commonly used throughout this document.

Dispersion Factor (χ/Q)

The concentration of a contaminant decreases as it travels away from the site of release and spreads out or "dispersed." χ/Q are numerical estimates of the amount of dispersion that occurs under specific conditions. The amount of dispersion depends on the distance traveled, the height of release, and meteorological conditions such as wind speed and atmospheric stability. The dispersion factors for the screening risk assessment procedure give the estimated annual average ground-level concentration ($\mu\text{g}/\text{m}^3$) resulting from a source emitting one ton/year of a contaminant. For a more detailed explanation of derivation of χ/Q for each meteorological station, please refer to Appendix VI.

Molecular Weight Adjustment Factor (MWAF)

MWAFs should be used when calculating the cancer risk. For most of the toxic metals, the OEHHA cancer potency factor applies to the weight of the toxic metal atom contained in the overall compound. This ensures that the cancer potency factor is applied only to the fraction of the overall weight of the emissions that are associated with health effects of the metal.

For most of the Hot Spots toxic metals, the OEHHA cancer potency factors, acute and chronic Reference Exposure Levels (RELs) apply to the weight of the toxic metal atom contained in the overall compound. Some of the Hot Spots compounds contain various elements along with the toxic metal

atom (e.g., “Nickel hydroxide,” CAS number 12054-48-7, has a formula of H₂NiO₂). Therefore, an adjustment to the reported pounds of the overall compound is needed before applying the OEHHA cancer potency factor for “Nickel and compounds” to such a compound. This ensures that the cancer potency factor, acute or chronic REL is applied only to the fraction of the overall weight of the emissions that are associated with health effects of the metal. In other cases, the Hot Spots metals are already reported as the metal atom equivalent (e.g., CAS 7440-02-0, “Nickel”), and these cases do not use any further molecular weight adjustment. The appropriate MWF to be used along with the OEHHA cancer potency factors, acute and chronic RELs for Hot Spots metals can be found in the MWF column of the table containing OEHHA and California Air Resources Board’s (CARB) Approved Health Values for use in Hot Spots Facility Risk Assessments (Consolidated Health Values Table), which is available at: <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Cancer Potency (CP) Factor

The CP factor is a measure of the cancer potency of a carcinogen. Cancer potency describes the potential risk of developing cancer per unit of average daily dose over a 70-year lifetime. The CP factors in these procedures were approved by the state Scientific Review Panel and prepared by OEHHA. The CP can be found in the Consolidated Health Values Table, which is available at: <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Reference Exposure Level (REL)

The concentration level at or below which no adverse non-cancer health effects are anticipated for a specified exposure duration is termed the REL. RELs are based on the most sensitive, relevant, adverse health effect reported in the medical and toxicological literature. RELs are designed to protect the most sensitive individuals in the population by the inclusion of margins of safety. Since margins of safety are incorporated to address data gaps and uncertainties, exceeding the REL does not automatically indicate an adverse health impact. The REL can be found in the Consolidated Health Values Table, which is available at: <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Multi-Pathway (MP) Adjustment Factor

The MP adjustment factor is used for substances that may contribute to risk from exposure pathways other than inhalation. These substances deposit on the ground in particulate form and contribute to risk through ingestion of soil or backyard garden vegetables or through other routes. The MP adjustment factor estimates the total risk in comparison to a given inhalation risk. MP adjustment factors are provided in Attachment N, Tables 3.1 and 3.2. These factors allow permit units that emit multi-pathway pollutants to use the risk screening procedure rather than proceeding directly to preparing a detailed risk assessment.

Daily Breathing Rate (DBR)

Exposure to airborne chemicals occurs through inhalation and subsequent absorption into the body, potentially resulting in adverse health effects depending on toxicological properties of the chemical and other exposure parameters. For residential exposures, the breathing rates are determined for specific age groups (i.e., third trimester, 0-2, 2-16, and 16-30 years). CARB is developing an updated Risk Management Policy (RMP) that includes recommendations for inhalation exposures. Information regarding CARB’s RMP can be located at: <http://www.arb.ca.gov/toxics/toxics.htm>. For residential exposures, CARB’s RMP recommends using the high end DBR (e.g., 95th percentile) for children from the third trimester through age 2, and 80th percentile DBR for all other ages. This is reflected in Attachment N, Tables 4.1A – 4.2D. For worker exposures, it is assumed that the working

age begins at 16 years, and that exposures to facility emissions occur during the work shift which is typically up to eight hours per day during work days.

Age Sensitivity Factor (ASF)

Scientific data have shown that young animals are more sensitive than adult animals to exposure to many carcinogens. Therefore, OEHHA developed ASFs to take into account the increased sensitivity to carcinogens during early-in-life exposure. OEHHA recommends an ASF of 10 for exposures that occur from the third trimester of pregnancy to 2 years, and an ASF of 3 for exposures that occur from 2 years through 15 years of age.

Exposure Duration (ED)

A 30-year ED (residency time) should be used for residential and sensitive receptor locations. A 25-year ED should be used for off-site workers (i.e., receptor locations in commercial or industrial areas).

Fraction of Time Spent at Home (FAH)

OEHHA and CARB have evaluated information from activity patterns databases to estimate the percentage of the day that people are at home. This information is used to adjust cancer risk from a facility's emissions, assuming that exposure to the facility's emissions are not occurring away from home. The FAH factor does not apply for workers since the worker is assumed to be present at the work site 100 percent of the work day. For Tiers 1, 2, and 3 screening purposes, the FAH is assumed to be 1 for ages third trimester to 16. As a default, children are assumed to attend a daycare or school in close proximity to their home and no discount should be taken for time spent outside of the area affected by the facility's emissions. People older than age 16 are assumed to spend only 73 percent of their time at home.

Exposure Frequency (EF)

EF is the number of days per year of exposure for the given scenario (i.e. residential, worker). OEHHA recommends the use of 350 days/year for residential exposure (applicable to 30-year risk assessments), and 250 days/year for worker exposure. This equates to $EF = 0.96$ for residential exposure and $EF = 0.68$ for worker exposure.

Averaging Time (AT)

AT is the lifetime exposure period OEHHA used to develop the cancer potency values. CP factors are developed as estimates of cancer risk from exposure to a lifetime dose (i.e. 70 years) of a carcinogen. Since cancer risks are calculated on a yearly basis to account for age-specific factors (e.g., ASF, DBR, etc.) the CP factor must be divided by its original 70-year AT in the risk equation to generate an annual CP factor to be used in the cancer risk calculations. For AT, OEHHA recommends the use of 70 years.

Worker Adjustment Factor (WAF)

In risk assessments, long-term averages are typically used for cancer risk calculations for residents and workers. Therefore, for an off-site worker, the long-term average should represent what the worker breathes during their work shift. However, the long-term averages calculated from AERMOD typically represent exposures for receptors that were present 24 hours a day and seven days a week which is the schedule of a residential receptor. When modeling a non-continuously emitting source (e.g., operating for eight hours per day and five days per week), the long-term concentration has to be adjusted so that it is only based on the hours when the worker is present. WAF is the ratio between

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residential exposure and facility schedule. For screening purposes, the off-site worker schedule is assumed to always overlap with the facility's operating schedule.

Tier 1: Screening Emission Levels

OVERVIEW OF TIER 1

Tier 1 involves a simple look-up table (Attachment N, Table 1.0) in which the equipment's emissions are compared to screening levels. The screening levels are pollutant emission thresholds which are not expected to produce a MICR greater than one in one million nor a hazard index greater than one.

Tier 1 can be used by applicants to determine whether or not a detailed risk analysis will be required when filing for a permit. It can also be used by applicants and SCAQMD staff to determine whether a permit is required based on paragraph (s)(2) in Rule 219.

Tier 1 may be used only for a single emission source and a single TAC. However, it can be used for multiple pollutants if the Multiple Pollutant Screening Level Procedure (described below) is followed.

INSTRUCTIONS FOR TIER 1

The Tier 1 analysis is performed as follows:

1. Determine the maximum annual emissions (for cancer and non-cancer 8-hour and chronic TACs) and determine the maximum hourly emissions (for non-cancer acute TACs).
2. Compare the emissions to the screening levels for that contaminant in Attachment N, Table 1.0. Columns are labeled with the distance to the nearest receptor.
3. If the maximum annual emissions or the maximum hourly emissions do not exceed the screening levels, the equipment will comply with Rule 1401 and does not require notice under Rule 212 for toxics.
4. If the maximum annual emissions or the maximum hourly emissions exceed the screening levels, proceed to Tier 2.

The screening levels in Attachment N, Table 1.0 were determined by back calculation, using the highest χ/Q established in Attachment N, Tables 6.1 A through 7.6 B that would not exceed a cancer risk of one in one million or an HIC, HIC8 or HIA of one.

MULTIPLE POLLUTANT SCREENING LEVEL PROCEDURE

1. Calculate the Pollutant Screening Index for each TAC (PSI_{TAC}). For each carcinogenic and/or 8-hour or chronic compound, divide the maximum annual emissions (in pounds per year) of each TAC (Q_{lbpy}) by the Annual Pollutant Screening Level ($PSL_{TAC, Annual}$) in pounds per year, as contained in Attachment N, Table 1.0. For each acute compound, divide the maximum hourly emission (in pounds per hour, Q_{lbph}) of each TAC by the Hourly Pollutant Screening Level ($PSL_{TAC, Hourly}$) as contained in Attachment N, Table 1.0.

$$PSI_{TAC, Cancer, 8-hr, or Chronic} = Q_{lbpy, TAC} / PSL_{TAC, Annual}$$

$$PSI_{TAC, Acute} = Q_{lbph, TAC} / PSL_{TAC, Hourly}$$

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2. Calculate the Application Screening Index (ASI). Sum up the individual Pollutant Screening Indices for all chronic, 8-hour and carcinogenic pollutants (PSI_P) and, separately, for all acute TACs.

$$ASI_{\text{cancer,8-hr,chronic}} = PSI_{TAC1,\text{cancer,8-hr,chronic}} + PSI_{TAC2,\text{cancer,8-hr,chronic}} + PSI_{TAC3,\text{cancer,8-hr,chronic}} + \dots$$

$$ASI_{\text{acute}} = PSI_{TAC1,\text{acute}} + PSI_{TAC2,\text{acute}} + PSI_{TAC3,\text{acute}} + \dots$$

3. Neither the $ASI_{\text{cancer,8-hr,chronic}}$, nor the ASI_{acute} can exceed one.

Refer to Example 2 (starting on page 33) for multiple pollutant screening.

If step 3 cannot be met, proceed to Tier 2.

Tier 2: Screening Risk Assessment

OVERVIEW OF TIER 2

Tier 2 is a screening risk assessment, which includes procedures for determining the level of risk from a source for cancer risk, cancer burden, HIA, HIC8, and HIC. If the estimated risk from Tier 2 screening is below Rule 1401 limits, then a more detailed evaluation is not necessary. Examples of calculations are provided at the end of the description of Tier 4 risk assessment. (See page 27)

If the screening risk assessment results in a risk estimate that exceeds the risk limits or the permit applicant feels that a more detailed evaluation would result in a lower risk estimate, the applicant has the option of conducting a more detailed analysis using Tier 3 or 4.

To perform a Tier 2 screening risk assessment, the following information is needed:

- **Maximum annual emissions** of each carcinogen and non-cancer 8-hour and chronic TAC, and the **maximum hourly emissions** of each non-cancer acute TAC;
- The **distance** from the permit unit to the nearest off-site residential and worker receptor(s);
- Certain source characteristics, such as **stack height** and/or **building dimensions**;
- **Operating schedule**: whether the permit unit will operate more or less than 12 hour/day; and
- **Geographic location** of the permit unit (e.g., city).

In order to perform a Tier 2 screening risk assessment, it is necessary to identify the nearest receptor location. For the purpose of calculating the MICR, HIC8 and HIC, a receptor is any location outside the boundaries of the facility at which a person could experience repeated, continuous exposure. For the purpose of calculating the HIA, a receptor is any location outside the boundaries of the facility at which a person could experience exposure over a short timeframe. Receptor locations include residential, commercial and industrial areas, and other locations where sensitive receptors may be located. Residential receptor locations include current residential land uses and areas which may be developed for residential uses in the future, given existing or planned zoning. Commercial/industrial receptor locations include areas zoned for manufacturing, light or heavy industry, office or retail activity. Sensitive receptor locations include any residence including private homes, condominiums, apartments, and living quarters; schools, including preschools and daycare centers; health facilities such as hospitals, retirement and nursing homes, long term care hospitals, hospices; in addition to prisons, dormitories or similar live-in housing, where children, chronically ill individuals or other sensitive persons could be exposed to TACs.

When identifying receptor locations in order to calculate cancer risk, HIC8 or HIC, the potential for chronic (long-term) exposure should be considered. Land uses at which it is not possible for individuals to be exposed on a long-term basis such as roadways or highways should not be used. When identifying receptor locations to calculate HIA, all off-site locations where there is the potential for acute exposure should be considered (i.e. fence-line receptor). Refer to Rule 1401 for more information regarding receptor locations to be considered.

For assessment of residential cancer risk, the risk is calculated in individual age bins (e.g., third trimester, 0-2 years, etc.) rather than a single lifetime calculation, whereas, for off-site worker, the default assumption is that working age begins at 16 years.

INSTRUCTIONS FOR CALCULATING MAXIMUM INDIVIDUAL CANCER RISK (MICR)

The MICR Calculation Worksheet in Appendix I can be used to help with the calculation. This worksheet can be included in the permit application as documentation of the MICR calculation.

MICR is calculated as follows:

$$\text{MICR} = \text{Cancer Potency (CP)} \times \text{Dose (D)} \times 10^{-6}$$

Where:

$$\text{Dose} = \text{Concentration} \times \text{Exposure}$$

$$\text{Concentration} = \text{GLC} = (\text{Q}_{\text{tpy}} \times \chi/\text{Q}) \times \text{MWF}$$

$$\text{CEF}_R = (\text{Exposure}_{0.25-0} + \text{Exposure}_{0-2} + \text{Exposure}_{2-16} + \text{Exposure}_{16-30}) \times \text{EF}_R / \text{AT}$$

$$\text{Exposure}_{\text{AgeBin}} = \text{DBR}_{\text{AgeBin}} \times \text{ED}_{\text{AgeBin}} \times \text{ASF}_{\text{AgeBin}} \times \text{FAH}_{\text{AgeBin}}$$

$$\text{Exposure}_R = \text{CEF}_R \times \text{MP}_R$$

$$\text{CEF}_W = \text{DBR}_W \times \text{ED}_W \times \text{EF}_W / \text{AT}$$

$$\text{Exposure}_W = \text{CEF}_W \times \text{MP}_W \times \text{WAF}$$

You may also use the following equation using **default combined exposure factor**, found in Tables 4.1D and 4.2D of Attachment N:

$$\text{MICR}_R = \text{CP} \times \text{Q}_{\text{tpy}} \times \chi/\text{Q} \times \text{MWF} \times \text{CEF}_R \times \text{MP}_R \times 10^{-6}$$

$$\text{MICR}_W = \text{CP} \times \text{Q}_{\text{tpy}} \times \chi/\text{Q} \times \text{MWF} \times \text{CEF}_W \times \text{MP}_W \times \text{WAF} \times 10^{-6}$$

For Tier 2 screening risk assessment procedures for short-term projects, refer to Appendix XII.

Terminology Reference Guide

Term	Description	Where to Find
GLC	Ground Level Concentration = $Q_{\text{tpy}} \times \chi/Q$	
Q_{tpy}	Maximum emission rate (tons/year)	Emission estimate specific to permit unit
χ/Q	Concentration at a receptor distance / Emission Rate [$(\mu\text{g}/\text{m}^3)/(\text{tons}/\text{year})$]	Attachment N, applicable Table by source type
MWAF	Molecular Weight Adjustment Factor	Consolidated Health Values Table ²
CP	Cancer Potency $(\text{mg}/\text{kg}\text{-day})^{-1}$	
REL	Reference Exposure Level $(\mu\text{g}/\text{m}^3)$	
MP	Multi-Pathway Adjustment Factor (if applicable)	Attachment N, Table 3.1 and 3.2
CEF	Combined Exposure Factor	Attachment N, Tables 4.1 A – 4.2 D
DBR	Daily breathing rate $(\text{L}/\text{kg body weight}\text{-day})$	Attachment N, Tables 4.1 A – 4.2 D
ASF	Age Specific factor (unitless)	Attachment N, Tables 4.1 A – 4.2 D
ED_R	Exposure Duration (30 years) – Residential	Attachment N, Tables 4.1 A – 4.1 E
ED_W	Exposure Duration (25 years) – Worker	Attachment N, Tables 4.2 A – 4.2 D
FAH	Fraction of Time Spent at Home (unitless)	Attachment N, Tables 4.1 A – 4.1 E
EF_R	Exposure Frequency, Residential = 0.96 (350 days / 365 days), unitless	Attachment N, Tables 4.1 A – 4.1 E
EF_W	Exposure Frequency, Worker = 0.68 (250 days / 365 days), unitless	Attachment N, Tables 4.2 A – 4.2 D
AT	Averaging Time (lifetime exposure = 70 years)	
WAF	Worker Adjustment Factor	Attachment N, Tables 5.1 and 5.2
10^{-6}	Micrograms to milligrams conversion, liters to cubic meters conversion	Not applicable

Step 1: Estimate Emission Rate (Q_{tpy})

The maximum annual emissions of the TAC in tons/year (Q_{tpy}) must be estimated. The emission rate must be expressed in tons/year because the χ/Q are expressed in tons/year.

² Available on CARB’s website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Step 2: Determine Release Type

Determine whether the permit unit is best characterized as a point source or a volume source:

- A **point source** is one that releases its emissions through a stack (designed with acceptable stack height). If the point source has a raincap or a horizontal release, a Tier 3 or 4 assessment is required.
- A **volume source** includes emissions that are unrestricted by any physical means (e.g. pipes or vents and/or vacuum or fan), including releases inside of a building or as fugitive emissions.

For permit units that have both point and volume releases, use the table that will result in the highest χ/Q value, or apportion the emissions between the point and volume sources.

Step 3: Determine Release Height

For a **point source**, determine the **stack height**, which is the distance from ground level to the top of the stack.

Acceptable Stack Height. Although a taller stack provides better dispersion, there are limits to the degree to which this factor can be incorporated into the risk assessment. Rule 1401 specifies that the stack height used to determine risk shall not exceed the “Acceptable Stack Height” for the permit unit. Acceptable stack height is defined as 2.5 times the height of the equipment or 2.5 times the height of the building housing the equipment, and may not exceed 65 meters (213 feet), unless the applicant demonstrates to the satisfaction of SCAQMD staff that a greater height is necessary. For example, for a building that is 14 feet high, the acceptable stack height is 35 feet, measured from ground level.

For a **volume source**, determine the **building height**, which is the distance from ground level to the top of the building in which the permit unit is located, and the **floor area**, which is the dimensions (length x width) of the building in which the permit unit is located.

An **area source** is similar to a volume source in that the emissions take place over an area (as opposed to a point such as from a stack). However, in an area source, the pollutants are released at a uniform height. Examples of area sources are storage piles, slag dumps, lagoons or ponds, and liquid spills. Toxic hydrocarbon emissions from open top and floating roof storage tanks are also often treated as elevated area sources. Use Tier 3 or 4 for area sources.

Step 4: Determine Operating Schedule

Determine whether the equipment will operate:

- 12 hours/day or less; or
- More than 12 hours/day

Step 5: Identify the Appropriate Meteorological Station

Appendix VI provides the locations of meteorological stations in the South Coast Air Basin (Basin) used for these calculations. Using Appendix VI, Figure VI-1, or the links below, determine the Source/Receptor Area (SRA) for the permit unit. Use Appendix VI, Table VI-1 to determine the meteorological site most appropriate to use for the permit unit's SRA. Additional information on how to select the appropriate SRA can be found on SCAQMD's website at <http://www3.aqmd.gov/webappl/gisaqi2/VEMap3D.aspx>; and <http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf>.

Step 6: Identify Type of Receptor and Distance from Receptor

Identify the nearest receptor locations. Receptor locations are off-site locations where persons may be exposed to emissions of a TAC from the equipment. Receptor locations include residential, commercial, and industrial land use areas, and other locations where sensitive populations may be located. For all receptor locations, the distance should be measured from the source to the edge of the property line of the nearest receptor.

Residential receptor locations include current residential land uses and areas that may be developed for residential uses in the future, based on existing and planned zoning.

Worker receptor locations include areas zoned for manufacturing, light or heavy industry, retail activity, or other locations that are regular work sites.

Sensitive receptor locations include any residence including private homes, condominiums, apartments, and living quarters, schools, preschools, daycare centers and health facilities such as hospitals, retirement and nursing homes, long term care hospitals, hospices in addition to prisons, dormitories, or similar live-in housing.

When identifying receptor locations to calculate MICR, the potential for chronic (long-term) exposure should be considered. Land uses at which it is not possible for individuals to be exposed on a long-term basis, either presently or in the future, should not be considered receptor locations for purposes of calculating MICR. Examples of such locations include flood channels, or roadways.

For a point source, the receptor distance is the distance from the center of the stack to the nearest receptor location.

For a volume source, the receptor distance is the distance from the edge of the building to the nearest receptor location.

Experience shows that in most cases, the receptor distance will be 50 meters or more. However, the table also provides χ/Q values for a 25-meter distance. The 25-meter distance should be used for circumstances in which there is a receptor located very close to the permit unit, for example, a residence located with a business, another business adjacent to the facility, or a sensitive receptor located less than 50 meters from the permit unit.

If the closest receptor location is a worker receptor, then the MICR must also be calculated for the closest residential or sensitive receptor. The greater of the two MICR values is used to determine compliance with the risk limits in the rule.

Care should be taken when estimating these distances since concentrations decrease rapidly with increasing distance. It is acceptable to linearly interpolate to estimate dispersion factors between the downwind distances given in the tables. If the receptor lies over 1,000 meters from the permit unit, use the concentration for 1,000 meters.

Step 7: Select χ/Q Value

Several tables are provided for χ/Q , based on the source parameters and the meteorological station. Select the appropriate χ/Q value from the table based on the **meteorological station, source characteristics** (i.e., stack height for point sources and building height and building area for volume sources) and the **receptor distance**. All screening tables are available in the Attachment – Permit Application Package “N” (also referred to as Attachment N), which is to be used in conjunction with these procedures. The Attachment contains χ/Q values for non-combustion sources; combustion sources such as diesel reciprocating internal combustion engines, natural gas reciprocating internal combustion engines, and natural gas boilers; crematoriums; short-term projects; and spray booths, as well as MICR values for gasoline dispensing facilities. Information regarding the methodology used to develop these screening tables can be found in Appendix VI through XIII.

Step 8: Identify MAAF

Using the Consolidated Health Values Table³, identify the MAAF for the TAC.

Step 9: Identify CP Factor and REL

Using the Consolidated Health Values Table³, identify the CP and REL for the TAC.

Step 10: Identify MP Adjustment Factor

Using Attachment N, Tables 3.1 and 3.2, identify the MP adjustment factor for the TAC, if applicable.

The MP adjustment factors are to be used only in urban residential or worker exposure situations. Note that there are separate MP adjustment factors for worker (MP_W), resident (MP_R) and short-term ($MP_{R,ST}$ and $MP_{W,ST}$) exposure (see Attachment N, Tables 3.1 and 3.2) since their potential routes and duration of exposure varies. If the facility is in the vicinity of other potential routes of population exposure such as agricultural areas, drinking water reservoirs, lakes or ponds used for fish that are consumed regularly, or areas used for livestock grazing, then these MP screening assumptions are not appropriate and a more detailed multi-pathway assessment (Tier 4) must be performed.

³ Available on CARB’s website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

For a more detailed description of the derivation of the MP adjustment factors, please see Appendix II.

Step 11: Select CEF

Using Attachment N, Tables 4.1 A – 4.2 D, select the appropriate CEF. The CEF for each exposure type (residential, worker, or short-term) combines default exposure parameters for DBR, ASF, ED, FAH, EF, and AT into a single value.

Step 12: Calculate WAF

For sources operating and emitting continuously (24 hours per day and 7 days per week), the worker is assumed to breathe the long-term annual concentration during their work shift and no adjustments are necessary when estimating the cancer risk. In these cases, the WAF is equal to one. For non-continuous sources operating, the appropriate WAF can be calculated using the following equation:

$$\text{WAF} = (\text{H}_{\text{residential}} / \text{H}_{\text{source}}) \times (\text{D}_{\text{residential}} / \text{D}_{\text{source}})$$

Where;

WAF = Worker adjustment factor

H_{residential} = The number of hour per day the long-term concentration is based on (always 24 hours)

H_{source} = The number of hours the source operates per day

D_{residential} = The number of days the per week the long-term residential concentration is based on (always 7 days)

D_{source} = The number of days the source operates per week

Although the 2015 OEHHA Guidelines allow the use of a discount factor (DF) when assessing inhalation cancer health impacts, if the off-site worker's schedule partially overlaps with the source's emission schedule, the DF should only be used when there are limits on the hours of operation specified in the facility's operating permits. Since SCAQMD permits do not typically include limits on the hours of operation, it is not appropriate to apply the DF when calculating the health impacts.

MICRs for Multiple TACs

If the equipment emits more than one TAC, the total MICR must be calculated. The total MICR is the sum of the MICRs for each of the TACs emitted by the equipment.

INSTRUCTIONS FOR CALCULATING CANCER BURDEN

The cancer burden is the estimated increase in the occurrence of cancer cases in a population as a result of exposures to TAC emissions from the equipment over a 70-year exposure duration. The cancer burden for a population unit (city, census tract, sub-area or grid) is the product of the number of persons in the population and the estimated individual risk from TACs. The cancer burden only needs to be calculated if the resulting MICR from a 30-year exposure duration is greater than one in one million.

The following procedure may be used to perform an acceptable screening analysis for cancer burden due to a single source of TAC:

- Re-calculate total MICR from all TACs from a single permit unit using a 70-year exposure duration, as is required in the 2015 OEHHA Guidelines⁴. The CEF for the 70-year exposure duration can be found in Attachment N, Table 4.1 E.
- Estimate the distance at which the MICR from a 70-year exposure duration falls below one in one million. This distance can be estimated by back-calculating the distance that would result in a MICR of one in one million, using the χ/Q values in Attachment N source specific tables.
- Define a zone of impact in the shape of a circle. The radius (r) of this circle is the distance between the equipment and the point at which the risk falls below one in one million. The area of this circle is calculated using the equation for the area of a circle, which is $3.14 \times r^2$.
- Estimate the residential population within this zone of impact based on census data or a worst-case estimate. Generally, the residential population in the Basin is less than 4,000 persons/km², but some areas are as high as 7,000 persons/km².

For areas where census data is available, it should be used. Where there is no census data, 7,000 persons/km² should be used for the areas with high population densities and 4,000 persons/km² should be used for areas with low population densities (such as locations along the Pacific Ocean). Where the population densities are unknown, use 7,000 persons/km².

- Calculate the screening level cancer burden by multiplying the total residential population in the zone of impact by the maximum individual cancer risk.

If the χ/Q in the Attachment N source specific tables are not sufficient to estimate the distance at which MICR falls below one in one million, then a more refined risk assessment is warranted.

⁴ OEHHA, 2015. Section 8, "Risk Characterization for Carcinogens and Noncarcinogens and the Requirements for Hot Spots Risk Assessments." Available at: <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>.

INSTRUCTIONS FOR CALCULATING HIC, HIC8, AND HIA

Some TACs have the potential to cause non-cancer health risk due to short term (acute) or long term (chronic) exposures. The screening risk assessment for those TACs must estimate HIA, HIC8, and/or HIC as applicable. Like the calculation procedure for MICR, one must first identify when the application was deemed complete and select the appropriate set of risk tables found in the attachments (e.g. Attachment M, Attachment L, etc).

The REL is used as an indicator of potential adverse non-cancer health effects. An inhalation REL is a concentration level ($\mu\text{g}/\text{m}^3$) at which no adverse health effects are anticipated. Inhalation RELs are provided in the Consolidated Health Values Table⁵.

When a health impact calculation is performed for a single substance, it is called the **Hazard Quotient (HQ)**. When several TACs affect the same organ system in the body (e.g., respiratory system, nervous system, reproductive system), there can be a cumulative effect on the target organ. In these cases, the sum of the HQs of all chemicals emitted that impact the same target organ, called total **Hazard Index (HI)**, is evaluated. The Target Organs Tables for each TAC are available on CARB's website⁶.

Detailed procedures for calculating the total HI are provided in the 2015 OEHHA Guidelines. The equations used to calculate the HIC, HIC8, and HIA per target organ are as follows:

$$\text{Total HIC}_{\text{target organ}} = \{[Q_{\text{tpy},\text{TAC1}} \times (\chi/Q) \times \text{MP}_{\text{TAC1}} \times \text{MwAF}]/\text{Chronic REL}_{\text{TAC1}}\}_{\text{target organ}} + \{[Q_{\text{tpy},\text{TAC2}} \times (\chi/Q) \times \text{MP}_{\text{TAC2}} \times \text{MwAF}]/\text{Chronic REL}_{\text{TAC2}}\}_{\text{target organ}} + \dots$$

$$\text{Total HIC8}_{\text{target organ}} = \{[Q_{\text{tpy},\text{TAC1}} \times (\chi/Q) \times \text{WAF} \times \text{MwAF}]/8\text{-Hour REL}_{\text{TAC1}}\}_{\text{target organ}} + \{[Q_{\text{tpy},\text{TAC2}} \times (\chi/Q) \times \text{WAF} \times \text{MwAF}]/8\text{-Hour REL}_{\text{TAC2}}\}_{\text{target organ}} + \dots$$

$$\text{Total HIA}_{\text{target organ}} = \{[Q_{\text{lbph},\text{TAC1}} \times (\chi/Q)_{\text{hr}} \times \text{MwAF}]/\text{Acute REL}_{\text{TAC1}}\}_{\text{target organ}} + \{[Q_{\text{lbph},\text{TAC2}} \times (\chi/Q)_{\text{hr}} \times \text{MwAF}]/\text{Acute REL}_{\text{TAC2}}\}_{\text{target organ}} + \dots$$

Note that the HIC is based upon an annual average emission per year whereas the HIA is based upon a maximum 1-hour emission level and the HIA does not use an MP. In addition, 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 HIC8 is based upon the daily average 8-hour exposure only for those chemicals with 8-hour RELs. There are currently only a limited number of substances with an 8-hour inhalation REL.

⁵ Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

⁶ Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.

PROCEDURE FOR ALTERNATE HI LEVEL EXEMPTION

Rule 1401 provides an exemption from the HI limit of one in cases in which a higher exposure level is deemed to be safe. This exemption has never been used. Under this exemption, the HIC and/or HIA limit of one does not apply if the applicant substantiates to the satisfaction of SCAQMD staff that at all receptor locations and for every target organ system, the total HIC and HIA levels resulting from emissions from the equipment will not exceed alternate HI levels determined by OEHHA to be protective against adverse health effects. This applies only to TACs listed in Rule 1401 at the time the application was deemed complete. Refer to the attachments for the appropriate list of TACs.

Applicants should indicate in their permit application that they wish to apply for an exemption under the alternative HI provisions of the rule. The permit application should include both a risk assessment estimating the HIA and HIC levels and relevant information supporting the exemption. Depending on the particular health risks in question, additional information such as characterization of the surrounding population, the location of sensitive receptors, or other data may be required.

SCAQMD staff will consult with OEHHA staff regarding the request for the alternative HI level. If OEHHA staff finds that the levels of exposure to the public will not exceed levels that are protective against adverse health effects, the application will be eligible for the exemption.

In some cases, OEHHA staff may establish a general policy recommending different acceptable exposure levels for different exposed populations. For example, if exposure to a certain compound is particularly harmful to children but less of a concern for adults, OEHHA staff may determine as a general policy that higher exposure levels are acceptable in locations where children would not be exposed. OEHHA policy in these cases would be a basis for eligibility for the alternate HI exemption.

Tier 3: Screening Dispersion Modeling

Tier 3 uses a screening dispersion model to estimate risk. This tier requires more expertise than Tiers 1 and 2. For guidance on performing a Tier 3 analysis, refer to the SCAQMD website at: <http://www.aqmd.gov/home/permits/risk-assessment>.

Tier 3 screening dispersion modeling should only be used for equipment with a single emission or release point. If there are multiple emission or release points, Tier 4 must be used. In addition, Tier 3 would only be beneficial for applications involving source parameters that differ substantially from those used to derive χ/Q values in Attachment N source specific tables and Appendices VII through XII.

To perform a Tier 3 analysis, the following is needed:

- Air dispersion modeling expertise;
- The most recently approved version of U.S. EPA's screening dispersion model AERSCREEN, which can be downloaded from www.epa.gov/scram; and
- Additional equipment information such as stack gas temperature, stack gas exit velocity or flow rate, stack inside diameter, and surface characteristics (albedo, Bowen ratio, and surface roughness) of the appropriate meteorological station (see Appendix VI, Table VI-1).

It should be noted that AERSCREEN estimates peak 1-hour concentrations for HIA calculations. For the MICR and HIC calculations, use the annual average concentration estimated in the AERSCREEN output. Note that when modeling an area source in AERSCREEN, only the 1-hour concentration is estimated. The U.S. EPA's user's guide for screening models states the following for area sources: "Do not use the multiplying factors to correct for averaging times greater than 1 hour. Concentrations close to an area source will not vary as much as those for point sources in response to varying wind directions, and the meteorological conditions which are likely to give maximum 1-hour concentrations can persist for several hours. Therefore it is recommended that the maximum 1-hour concentration be conservatively assumed to apply for averaging periods out to 24 hours."⁷

In a Tier 3 approach, the Tier 2 equations for MICR, HIC, and HIA continue to be used except that a screening dispersion model is used to estimate each pollutant concentration. Thus, the Tier 3 equations to be used are as follows:

$$\text{MICR}_R = \text{CP} \times \text{PeakConc} \times \text{CEF}_R \times \text{MP}_R \times 10^{-6} \times \text{MWF}$$

$$\text{MICR}_W = \text{CP} \times \text{PeakConc} \times \text{CEF}_W \times \text{MP}_W \times \text{WAF} \times 10^{-6} \times \text{MWF}$$

$$\text{Total HIC}_{\text{target organ}} = \Sigma \{[\text{AveConc}_{\text{TAC}} \times \text{MP} \times \text{MWF}] / \text{Chronic REL}_{\text{TAC}}\}_{\text{target organ}}$$

$$\text{Total HIC}_8_{\text{target organ}} = \Sigma \{[\text{AveConc}_{\text{TAC}} \times \text{WAF} \times \text{MWF}] / 8\text{-Hour REL}_{\text{TAC}}\}_{\text{target organ}}$$

$$\text{Total HIA}_{\text{target organ}} = \Sigma \{[\text{PeakConc}_{\text{TAC}} \times \text{MWF}] / \text{Acute REL}_{\text{TAC}}\}_{\text{target organ}}$$

⁷ U.S. EPA, October 1992. Section 4.5.4, "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised", EPA 454/R-92-019. Available at: https://www3.epa.gov/scram001/guidance/guide/EPA-454R-92-019_OCR.pdf.

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PeakConc is the peak 1-hour pollutant concentration estimated by AERSCREEN and AveConc is the annual average concentration in the AERSCREEN output file. Refer to the section on Tier 2, Screening Risk Assessment for explanation of the other variables in the equations.

If the MICR, HIC, HIC8, and HIA do not exceed the rule limits, then the equipment complies with Rule 1401 and no further analysis is required. If any risk value exceeds the rule limits, then proceed to Tier 4.

Tier 4: Detailed Risk Assessment

Tier 4 is a detailed risk assessment using the Hotspots Analysis and Reporting Program Version 2 (HARP 2) software developed by CARB which replaces the prior version of HARP and incorporates the information contained in the 2015 OEHHA Guidelines. The HARP 2 software and documentation can be obtained at <http://www.arb.ca.gov/toxics/harp/harp.htm>. The U.S. EPA's air quality dispersion model AERMOD is used by HARP 2 to estimate the concentration of pollutants in place of the previously used Industrial Source Complex - Short Term Version 3 (ISCST3) model. ISCST3 dispersion modeling will no longer be allowed for determining TAC concentrations. CARB recommends AERMOD for Hot Spots risk assessments. AERMOD documentation is available at: <https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models#aermod>. Meteorological data for use in HARP 2 and AERMOD can be downloaded from <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/data-for-aermod>.

Tier 4 is an option if neither Tier 2 nor Tier 3 can demonstrate compliance, or if the applicant wishes to obtain a more refined estimate of the cancer and non-cancer risks. Since Tier 4 involves detailed dispersion modeling using actual meteorological data from the station that is most representative of the facility's meteorological conditions, it will often result in a less conservative estimate of the risk than either Tiers 2 or 3. Tier 4 modeling will be most useful for analyses that have source parameters that differ substantially from defaults used to develop the source specific tables in Attachment N, Tables 6.1 A – 13.3 and Appendices VII through XII, and/or analyses whose closest receptors do not lie immediately downwind of the emission sources.

A detailed risk assessment should be performed by individuals with experience and training in air quality dispersion modeling and risk assessment. In addition, SCAQMD modeling staff should be consulted and a modeling protocol be approved before performing a detailed risk assessment which deviates from SCAQMD's methodology. For guidance on performing a detailed risk assessment, refer to SCAQMD website at: <http://www.aqmd.gov/home/permits/risk-assessment>. AERMOD should be run using the averaging times PERIOD and 1-hour.

Written guidance on preparing a detailed risk assessment is contained in the 2015 OEHHA Guidelines which may be obtained at: http://www.oehha.ca.gov/air/hot_spots/hotspots2015.html.

SCAQMD modeling staff has prepared supplemental risk assessment guidance which must be followed by all applicants submitting Tier 4 assessments. SCAQMD's supplemental guidance is available at: <http://www.aqmd.gov/home/regulations/compliance/toxic-hot-spots-ab-2588/health-risk-assessment>. HARP 2 settings should follow the options described in Appendix II. Lastly, SCAQMD guidance on using AERMOD can be found at: <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/modeling-guidance>.

EXAMPLE 1: MICR, CANCER BURDEN, and HIC CALCULATION

The facility does not have operating schedule restrictions and is located in an industrial and residential area. Chromium 6+ (Hexavalent chromium) is emitted from the manufacturing process from one piece of equipment, which is fitted with control equipment considered as T-BACT. Chromium 6+ is a carcinogen and has chronic non-carcinogenic risks.

The application was deemed complete on October 1, 2017.

The nearest receptor distances:

Worker (Industrial) = 328 feet (100 meters)

Residential = 492 feet (150 meters)

Operating Schedule: 24 hours/day, 7 days/week since no schedule restrictions are included in the permit conditions.

Stack height = 28 feet

Facility location: Ontario, CA

TACs: Chromium 6+

Emission rates for the TACs are listed in Table A below.

Note: The maximum hourly emissions should be estimated based on the maximum operating parameters in any hour.

Table A

TAC	Emission Rate		
	Q _{lbph} (lbs/hr)	Q _{lbpy} (lbs/yr)	Q _{tpy} (tons/yr)
Chromium 6+	2.63E-07	2.30E-03	1.15E-06

(The list of TACs and their corresponding emission rates are for illustration purposes only. They may not reflect actual conditions.)

First, identify the appropriate risk assessment tables based upon when the application was deemed complete. In this case, the tables for applications deemed complete on or after October 1, 2017 (i.e., Permit Application Package “N”) are used.

Second, calculate MICR for those TACs that have Inhalation CP Values from the Consolidated Health Values Table⁸. Note that the MICR calculated here is for a 30-year exposure duration. Table B below identifies the TACs and their corresponding Inhalation CP Values for MICR calculations.

⁸ Available on CARB’s website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Table B

TAC	Inhalation (CP) (mg/kg-day)⁻¹
Chromium 6+	5.10E+02

Based on the above table, MICR will be evaluated for residential and worker receptors for Chromium 6+.

From the Consolidated Health Values Table⁹, determine if the emitted pollutant has carcinogenic, HIC, HIC8, and/or HIA health values. The results are as follows:

Table C

TAC	MICR (cancer)	HIC (chronic)	HIC8 (chronic)	HIA (Acute)
Chromium 6+	√ (MP)	√ (MP)		

MP indicates that the adjustment factor will be different than 1.0. MP adjustment factors can be found in Attachment N, Tables 3.1 and 3.2.

Tier 1: Screening Emission Levels

The nearest receptor location, in this case the worker location of 100 meters, should be used.
Please note that this step is used to approximate the equipment's potential risk.

For Tier 1, the equipment's TACs emissions (annual and/or maximum hourly) should be compared with the screening levels for the Chromium 6+ in Attachment N, Table 1.0 as appropriate. The annual emission rate for Chromium 6+ in Table 1.0 is 4.31E-04 pounds per year at a distance of 100 meters. No maximum hourly emissions are presented in Table 1.0 because no acute value has been adopted in Rule 1401 for Chromium 6+.

Please note that the cumulative cancer/chronic risk cannot exceed the emissions presented in Table 1.0. In this example, this facility did not pass Tier 1 since the annual emissions (2.30E-03 lb/yr) are greater than those presented in Table 1.0 (4.31E-04 lb/yr) and would have to proceed to Tier 2 to demonstrate compliance with Rule 1401.

Tier 2: Screening Risk Assessment

Step 1: Estimate Q_{tpy}

According to Table A of the example, $Q_{tpy} = 1.15E-06$.

Step 2: Determine Release Type

⁹ Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

The TAC is released from one piece of equipment fitted with control equipment and vented through a stack. This would be treated as a **point source**.

Step 3: Determine Release Height

The piece of equipment has a stack height of **28 feet**.

Step 4: Determine Operating Schedule

The equipment can operate 24 hours/day and 7 days/week as there are no restrictions on hours of use in the permit. Therefore, the operating schedule is **more than 12 hours/day**.

Step 5: Identify the Appropriate Meteorological Station

The facility is located in Ontario and according to Appendix VI, Figure VI-1, the closest monitoring station is **Ontario International Airport (KONT)**.

Step 6: Identify Type of Receptor and Distance from Receptor

There are two identified receptor types – **a worker receptor located 100 meters** away and a **residential receptor located 150 meters** away.

Step 7: Select χ/Q Value

Since the point source operates more than 12 hours/day and is 28 feet high, the χ/Q values from Attachment N, Table 6.2 B for Ontario at a distance of 100 meters (**4.02**) and 150 meters (**2.78**) were used. The χ/Q value at 150 meters was interpolated between 100 meters and 200 meters.

Step 8: Identify MAAF

The MAAF value for Chromium 6+ (**1**) was found in the Consolidated Health Values Table¹⁰.

Step 9: Identify CP and REL

The CP value (**5.10E+02**) and chronic REL value (**2.00E-01**) for Chromium 6+ was found in the Consolidated Health Values Table¹¹. Note that there is no acute REL value for Chromium 6+.

Step 10: Identify MP

The MP values (**Cancer MP_R = 1.60, Cancer MP_W = 1.02, Chronic MP_R = 2.44, Chronic MP_W = 1.00**) for Chromium 6+ was found in Attachment N, Tables 3.1 and 3.2.

¹⁰ Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Step 11: Select CEF

The CEF values ($CEFR = 677.40$, $CEFW = 55.86$) for residential and worker exposures were found in Attachment N, Tables 4.1 D and 4.2 D.

Step 12: Calculate WAF

Since the point source operates 24 hours/day and 7 days/week, the WAF value (**1.0**) was found in Attachment N, Table 5.2.

MICR Calculation

(1) Worker: $MICR_w = CP \times Q_{tpy} \times \chi/Q \times CEF_w \times MP_w \times WAF \times 10^{-6} \times MWAF$

TAC	CP	Q_{tpy}	χ/Q	$CEFW$	MP_w	WAF	MWAF	MICR
Chromium 6+	5.10E+02	1.15E-06	4.02	55.86	1.02	1	1	1.34E-07

(2) Resident: $MICR_R = CP \times Q_{tpy} \times \chi/Q \times CEF_R \times MP_R \times 10^{-6} \times MWAF$

TAC	CP	Q_{tpy}	χ/Q	$CEFR$	MP_R	MWAF	MICR
Chromium 6+	5.10E+02	1.15E-06	2.78	677.40	1.60	1	1.77E-06

Please note that the higher of the worker and residential cancer risks needs to be selected. In this example, the maximum cancer risk is at the residential receptor.

Cancer Burden Calculation

Cancer burden should always be calculated if the MICR exceeds one in a million, regardless of the type of receptor. Since the cancer risk at the residential receptor was calculated to be 1.77×10^{-6} , the cancer burden needs to be calculated.

Re-calculate the MICR using a 70-year exposure duration

Since cancer burden is based on a 70-year exposure period, and our previous MICR calculation was based on a 30-year exposure period, the MICR needs to be re-calculated. Using $CEFR = 766.78$ (Attachment N, Table 4.1 E), the new MICR ($MICR_{70}$) at the residential receptor is calculated to be 2.00×10^{-6} .

Estimate of distance at which $MICR_{70}$ falls below one in one million.

The distance at which the $MICR_{70}$ falls below one in one million requires you to take the reciprocal of the calculated $MICR_{70}$ multiplied by 1.0×10^{-6} . This factor (F) will be the multiplier to the χ/Q value used in determining the MICR.

$$F = (1 / MICR) \times 1.0 \times 10^{-6}$$

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$$F = (1 / 2.00 \times 10^{-6}) \times 1.0 \times 10^{-6}$$

$$F = 0.500$$

Determination of the new downwind distance will be based upon a new χ/Q value calculated by multiplying the originally used χ/Q value by F.

Therefore,

$$\text{New } \chi/Q = 2.78 \times 0.500$$

$$\text{New } \chi/Q = 1.39$$

Using Attachment N, Table 6.2 B, the new χ/Q lies between downwind distances of 200 to 300 meters. Interpolating for the new downwind distance gives is 219 meters.

This new downwind distance is where the MICR will fall below one in one million.

Define Zone of Impact

The Zone of Impact is calculated using the new downwind distance as the radius of a circle and calculating the area of that circle.

Therefore,

$$\text{Zone of Impact} = 3.14 r^2$$

$$\text{Zone of Impact} = 3.14 (0.219 \text{ km})^2$$

$$\text{Zone of Impact} = 0.151 \text{ km}^2$$

Estimate the population within the Zone of Impact

The Zone of Impact should include both worker and residential populations.

For areas where census data is available, it should be used. Where there is no census data, 7,000 persons/km² should be used for the areas with high population densities and 4,000 persons/km² should be used for areas with low population densities. Where the population densities are unknown, use 7,000 persons/km².

In this example we have no information on census data or population density, therefore,

$$\text{Zone of Impact Population} = \text{Zone of Impact} \times \text{Population Density}$$

$$\text{Zone of Impact Population} = 0.151 \text{ km}^2 \times 7,000 \text{ person/ km}^2$$

$$\text{Zone of Impact Population} = 1,055 \text{ persons}$$

Calculate Cancer Burden

For a screening level analysis, the cancer burden is estimated using the zone of impact population multiplied by the calculated MICR₇₀.

Therefore,

$$\text{Cancer Burden} = 910 \text{ persons} \times 2.00 \times 10^{-6}$$

Cancer Burden = 0.00211

HI Calculations

HIC, HIC8 and HIA should be calculated for each target organ. Since no HIA or HIC8 health values have been adopted for Chromium 6+, only the HIC is estimated.

HIC:

$$\text{HIC} = \Sigma [(Q_{\text{tpy}}) \times (\chi/Q)_{\text{chronic}} \times \text{MP} \times \text{MWAF}] / (\text{Chronic REL})$$

The HIC for the TAC in this example are calculated as follows:

Chromium 6+:

Worker: $\text{HIC} = [1.15\text{E-}06 \times 4.02 \times 1.00 \times 1] / (2.00\text{E-}01) = \mathbf{2.31\text{E-}05}$

Resident: $\text{HIC} = [1.15\text{E-}06 \times 2.78 \times 2.44 \times 1] / (2.00\text{E-}01) = \mathbf{3.90\text{E-}05}$

Since there is only one TAC, the HI does not need to be summed across the target organs.

Summary of Results

	MICR	HIC	HIC8	HIA
Worker	1.34E-07	2.31E-05	N/A	N/A
Resident	1.77E-06	3.90E-05	N/A	N/A
Rule 1401 Threshold	10E-06	1.0	1.0	1.0
Exceeds Threshold?	No	No	N/A	N/A

RESULT:

- *MICRs for residential and commercial receptors do not exceed 10E-06 (ten in one million).*
- *Cancer burden is less than 0.5.*
- *HICs for residential and commercial receptors are less than 1.*
- *There are no health values associated with HIC8 or HIA and those hazard indices have not been calculated.*

The equipment in this example contains T-BACT; therefore, it would pass the Rule 1401 MICR limit. A Tier 3 or 4 analysis is not necessary.

EXAMPLE 2: MICR, CANCER BURDEN, HIC, HIC8, and HIA CALCULATIONS

An industrial operation generates arsenic, benzene, and dioxin emissions.

The application was deemed complete on October 1, 2017.

Volume source: Building dimensions 40 feet (W) x 70 feet (L) x 17 feet (H)

The nearest receptor distances are:

Worker (Industrial) = 328 feet (100 meters)

Residential = 1640 feet (500 meters)

Permitted Operating Schedule: 8 hours/day, 5 days/week, 50 weeks/year = 2,000 hours/year

Facility location: Azusa, CA

TACs: Arsenic, Benzene, 2,3,7,8-Tetrachlorodibenzo-p-Dioxin (Dioxin), Nickel hydroxide

Emission rates for the TACs are listed in Table A below.

Note: The maximum hourly emissions should be estimated based on the maximum operating parameters in any hour.

Table A

TAC	Emission Rate		
	Q _{lbph} (lbs/hr)	Q _{lbyr} (lbs/yr)	Q _{tpy} (tons/yr)
Arsenic	8.30E-06	1.66E-02	8.30E-06
Benzene	7.50E-03	1.50E+01	7.50E-03
Dioxin	6.10E-10	1.22E-06	6.10E-10
Nickel hydroxide	2.30E-03	4.60E+00	2.30E-03

(The list of TACs and their corresponding emission rates are for illustration purposes only. They may not reflect actual conditions.)

First, identify the appropriate risk assessment tables (included in the appendices) based upon when the application was deemed complete. In this case, the tables for applications deemed complete on or after October 1, 2017 (i.e., Permit Application Package “N”) are used.

Second, calculate MICR for those TACs that have Inhalation Cancer Potency Values from the Consolidated Health Values Table¹¹. Table B below identifies the TACs and their corresponding Inhalation Cancer Potency Values for MICR calculations.

¹¹ Available on CARB’s website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Table B

TAC	Inhalation Cancer Potency (CP) (mg/kg-day)⁻¹
Arsenic	1.20E+01
Benzene	1.00E-01
Dioxin	1.30E+05
Nickel hydroxide	9.10E-01

Based on the above table, MICR will be evaluated for residential and worker receptors for arsenic, benzene, dioxin, and nickel hydroxide.

From the Consolidated Health Values Table¹², we can also determine if the emitted pollutant is carcinogenic, HIC, HIC8, and/or HIA. The results are as follows:

TAC	MICR (cancer)	HIC (chronic)	8-hr HIC (chronic)	HIA (Acute)
Arsenic	√ (MP)	√ (MP)	√	√
Benzene	√	√	√	√
Dioxin	√ (MP)	√ (MP)		
Nickel hydroxide	√	√	√	√

MP indicates that the adjustment factor will be different than 1.0. Multi-pathway factors can be found in Attachment N, Tables 3.1 and 3.2.

Next, for chronic and acute substances, review the Target Organs Tables¹² to determine the target organs affected by TACs due to chronic and/or acute toxicity. Tables C, D, and E below indicate the target organs affected by the TACs with chronic toxicity, chronic 8-hour toxicity, and acute toxicity, respectively. In the table, check marks (√) indicate the affected target organs. Conservatively, it can be assumed that all TACs affect the same target organ, therefore, a breakdown of the affected target organ by TAC is not needed for the analysis.

¹² Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.

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Table C (Chronic Toxicity)

TAC	AL	BN	CV	REP/DEV	END	EYE	HEM	IMM	KID	NS	RESP	SKIN
Arsenic			√	√						√	√	√
Benzene							√					
Dioxin	√			√	√		√				√	
Nickel hydroxide				√			√				√	

AL: Alimentary system (liver)
 BN: Bones and teeth
 CV: Cardiovascular system
 REP/DEV: Reproductive/Developmental
 END: Endocrine system
 EYE: Eye

HEM: Hematopoietic system
 IMM: Immune system
 KID: Kidney
 NS: Nervous system
 RESP: Respiratory system
 SKIN: Skin

Table D (Chronic 8-hour Toxicity)

TAC	AL	BN	CV	REP/DEV	END	EYE	HEM	IMM	KID	NS	RESP	SKIN
Arsenic			√	√						√	√	√
Benzene							√					
Dioxin												
Nickel hydroxide								√			√	

Table E (Acute Toxicity)

TAC	AL	CV	REP/DEV	END	EYE	HEM	IMM	KID	NS	RESP	SKIN
Arsenic		√	√						√		
Benzene			√			√	√				
Dioxin											
Nickel hydroxide							√				

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Tier 1: Screening Emission Levels

The nearest receptor location, in this case the worker location of 100 meters, should be used.

For Carcinogenic and/or Chronic Compounds:

Calculate the Pollutant Screening Index for each pollutant (PSI_P).

$$PSI_P = Q_{lbpy,P} / PSL_P$$

The Q_{lbpy} is based upon the annual emissions of each TAC (lbs/yr). The PSLs are found in Attachment N, Table 1.0 and are expressed in lb/yr.

Sum up the individual Pollutant Screening Indices for each pollutant (Σ PSI_P).

TAC	Q _{lbpy,P}	PSL _P	PSI _P
Arsenic	1.66E-02	3.81E-03	4.36
Benzene	1.50E+01	4.44E+00	3.38
Dioxin	1.22E-06	1.33E-07	9.17
Nickel hydroxide	4.60E+00	1.92E-01	23.96
		Σ PSI_P =	40.87

Calculate the Application Screening Index (ASI).

$$ASI_{\text{cancer and/or chronic}} = \Sigma PSI_P = 40.87$$

For Acute Compounds:

Calculate the Pollutant Screening Index for each pollutant (PSI_P).

$$PSI_P = Q_{lbph,P} / PSL_P$$

The Q_{lbph} is based upon the maximum hourly emissions (lb/hr). The PSLs for acute compounds are found in Attachment N, Table 1.0 and are expressed in lb/hr.

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Sum up the individual pollutant screening indices for each acute pollutant ($\sum \text{PSI}_P$).

TAC	$Q_{\text{lbph,P}}$	PSL_P	PSI_P
Arsenic	8.30E-06	2.76E-04	0.03
Benzene	7.50E-03	3.73E-02	0.20
Nickel hydroxide	2.30E-03	4.36E-04	5.28
		$\sum \text{PSI}_P =$	5.51

Calculate the Application Screening Index (ASI).

$$\text{ASI}_{\text{acute}} = \sum \text{PSI}_P = 5.51$$

Please note that the cumulative cancer/chronic risk and the cumulative acute hazard index exceeded 1. In this example, this facility did not pass Tier 1 as the ASI exceeded 1 for cancer/chronic and acute. Since this Tier 1 screening was calculated to be greater than 1, the applicant would have to proceed with further health risk screening assessment procedures.

Tier 2: Screening Risk Assessment

Step 1: Estimate Emission Rate (Q_{tpy})

The emission rates are listed in Table A of the example.

Step 2: Determine Release Type

The TAC is released from a building with dimensions of 40 feet x 70 feet (2,800 ft² area) and height of 17 feet. This would be treated as a **volume source**.

Step 3: Determine Release Height

Since the source is a volume source, the release height is not relevant.

Step 4: Determine Operating Schedule

The facility operates 8 hours/day and 5 days/week as specified in the permit conditions. Therefore, the operating schedule is **less than 12 hours/day**.

Step 5: Identify the Appropriate Meteorological Station

The facility is located in Azusa and according to Appendix VI, Figure VI-1, the closest monitoring station is **Azusa (AZUS)**.

Step 6: Identify Type of Receptor and Distance from Receptor

There are two identified receptor types – a **worker receptor located 100 meters** away and a **residential receptor located 500 meters** away.

Step 7: Select χ/Q Value

Since the volume source of 2,800 ft² and height of 17 feet operates less than 12 hours/day, the χ/Q values from Attachment N, Table 7.1 A for Azusa at a distance of 100 meters (**0.84**) and 500 meters (**0.05**) were used.

Step 8: Identify MWAF

The MWAF values for all TACs were found in the Consolidated Health Values Table¹³.

Step 9: Identify CP and REL

The CP values and chronic REL values for all TACs were found in the Consolidated Health Values Table¹².

Step 10: Identify MP

The MP values for all TACs were found in Attachment N, Tables 3.1 and 3.2.

Step 11: Select CEF

The CEF values (**CEFR = 677.40**, **CEFW = 55.86**) for residential and worker exposures were found in Attachment N, Tables 4.1 D and 4.2 D.

Step 12: Calculate WAF

Since the volume source operates 8 hours/day and 5 days/week, the WAF value (**4.2**) was found in Attachment N, Table 5.1.

¹³ Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

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MICR Calculation

(1) Worker: $MICR_w = CP \times Q_{tpy} \times \chi/Q \times CEF_w \times MP_w \times WAF \times 10^{-6} \times MWAF$

TAC	CP	Q _{tpy}	χ/Q	CEF _w	MP _w	WAF	MWAF	MICR
Arsenic	1.20E+01	8.30E-06	0.84	55.86	4.52	4.2	1	8.87E-08
Benzene	1.00E-01	7.50E-03	0.84	55.86	1.00	4.2	1	1.48E-07
Dioxin	1.30E+05	6.10E-10	0.84	55.86	7.58	4.2	1	1.18E-07
Nickel hydroxide	9.10E-01	2.30E-03	0.84	55.86	1.00	4.2	0.6332	2.61E-07
TOTAL								6.16E-07

(2) Resident: $MICR_R = CP \times Q_{tpy} \times \chi/Q \times CEF_R \times MP_R \times 10^{-6} \times MWAF$

TAC	CP	Q _{tpy}	χ/Q	CEF _R	MP _R	MWAF	MICR
Arsenic	1.20E+01	8.30E-06	0.05	677.40	9.71	1	3.28E-08
Benzene	1.00E-01	7.50E-03	0.05	677.40	1.00	1	2.54E-08
Dioxin	1.30E+05	6.10E-10	0.05	677.40	25.72	1	6.91E-08
Nickel hydroxide	9.10E-01	2.30E-03	0.05	677.40	1.00	0.6332	4.49E-08
TOTAL							1.72E-07

Please note that the higher of the worker and residential cancer risks needs to be selected. In this example, the maximum cancer risk is at the worker receptor.

Cancer Burden Calculation

Cancer burden should always be calculated if the MICR exceeds one in a million, regardless of the type of receptor. For this example, cancer burden was not calculated because neither worker nor residential risk exceeded one in a million.

HI Calculations

HIC, HIC8, and HIA should be calculated for each target organ. Conservatively, it can be assumed that all TACs affect the same target organ to calculate the worst-case HI.

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HIC:

Worker: $HIC_W = \Sigma [(Q_{tpy}) \times (\chi/Q)_{chronic} \times MP_W \times MWAFF] / (\text{Chronic REL})$

Resident: $HIC_R = \Sigma [(Q_{tpy}) \times (\chi/Q)_{chronic} \times MP_R \times MWAFF] / (\text{Chronic REL})$

Based on the Target Organs Tables¹⁴, the target organs for the TACs for chronic toxicity have been listed in Table C. The Chronic Hazard Index for the TACs in this example are calculated as follows:

Arsenic: $HIC_W = [8.30E-06 \times 0.84 \times 28.37 \times 1] / (1.50E-02) = 1.32E-02$

$HIC_R = [8.30E-06 \times 0.05 \times 88.03 \times 1] / (1.50E-02) = 2.44E-03$

Benzene: $HIC_W = [7.50E-03 \times 0.84 \times 1.00 \times 1] / (3.00E+00) = 2.10E-03$

$HIC_R = [7.50E-03 \times 0.05 \times 1.00 \times 1] / (3.00E+00) = 1.25E-04$

Dioxin: $HIC_W = [6.10E-10 \times 0.84 \times 307.60 \times 1] / (4.00E-05) = 8.62E-05$

$HIC_R = [6.10E-10 \times 0.05 \times 6.73 \times 1] / (4.00E-05) = 2.35E-04$

Nickel hydroxide: $HIC_W = [2.30E-03 \times 0.84 \times 1.00 \times 0.6332] / (1.40E-02) = 8.74E-02$

$HIC_R = [2.30E-03 \times 0.05 \times 1.00 \times 0.6332] / (1.40E-02) = 5.20E-03$

8. Worker: HIC_W (summed across each target organ)

TAC	AL	BN	CV	REP/DEV	END	EYE	HEM	IMM	KID	NS	RESP	SKIN
Arsenic			1.32E-02	1.32E-02						1.32E-02	1.32E-02	1.32E-02
Benzene							2.10E-03					
Dioxin	8.62E-05			8.62E-05	8.62E-05		8.62E-05				8.62E-05	
Nickel hydroxide				8.74E-02			8.74E-02				8.74E-02	
TOTAL	8.62E-05		1.32E-02	1.01E-01	8.62E-05		8.96E-02			1.32E-02	1.01E-01	1.32E-02

(2) Resident: HIC_R (summed across each target organ)

TAC	AL	BN	CV	REP/DEV	END	EYE	HEM	IMM	KID	NS	RESP	SKIN
Arsenic			2.44E-03	2.44E-03						2.44E-03	2.44E-03	2.44E-03
Benzene							1.25E-04					
Dioxin	2.35E-04			2.35E-04	2.35E-04		2.35E-04				2.35E-04	
Nickel hydroxide				5.20E-03			5.20E-03				5.20E-03	
TOTAL	2.35E-04		2.44E-03	7.87E-03	2.35E-04		5.56E-03			2.44E-03	7.87E-03	2.44E-03

¹⁴ Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.

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HIC8:

Worker: $HIC8_W = \Sigma [(Q_{tpy}) \times (\chi/Q)_{chronic} \times WAF \times MWAF] / (8\text{-hour Chronic REL})$

Resident: $HIC8_R = \Sigma [(Q_{tpy}) \times (\chi/Q)_{chronic} \times MWAF] / (8\text{-hour Chronic REL})$

Based on the Target Organs Table¹⁵, the target organs for the TACs with HIC8 RELs have been listed in Table D. The HIC8 for the TACs in this example are calculated as follows:

Arsenic: $HIC8_W = [8.30E-06 \times 0.84 \times 4.2 \times 1] / (1.50E-02) = 1.95E-03$

$HIC8_R = [8.30E-06 \times 0.05 \times 1] / (1.50E-02) = 2.77E-05$

Benzene: $HIC8_W = [7.50E-03 \times 0.84 \times 4.2 \times 1] / (3.00E+00) = 8.82E-03$

$HIC8_R = [7.50E-03 \times 0.05 \times 1] / (3.00E+00) = 1.25E-04$

Dioxin: **There are no HIC8 REL values established for dioxin.**

Nickel hydroxide: $HIC8_W = [2.30E-03 \times 0.84 \times 4.2 \times 0.6332] / (6.00E-02) = 8.56E-02$

$HIC8_R = [2.30E-03 \times 0.05 \times 0.6332] / (6.00E-02) = 1.21E-03$

9. Worker: HIC8_w (summed across each target organ)

TAC	AL	BN	CV	REP/DEV	END	EYE	HEM	IMM	KID	NS	RESP	SKIN
Arsenic			1.95E-03	1.95E-03						1.95E-03	1.95E-03	1.95E-03
Benzene							8.82E-03					
Dioxin												
Nickel hydroxide								8.56E-02			8.56E-02	
TOTAL			1.95E-03	1.95E-03			8.82E-03	8.56E-02		1.95E-03	8.76E-02	1.95E-03

(2) Resident: HIC8_R (summed across each target organ)

TAC	AL	BN	CV	REP/DEV	END	EYE	HEM	IMM	KID	NS	RESP	SKIN
Arsenic			2.77E-05	2.77E-05						2.77E-05	2.77E-05	2.77E-05
Benzene							1.25E-04					
Dioxin												
Nickel hydroxide								1.21E-03			1.21E-03	
TOTAL			2.77E-05	2.77E-05			1.25E-04	1.21E-03		2.77E-05	1.24E-03	2.77E-05

¹⁵ Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.

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HIA:

For all acute compounds with RELs developed for a 1-hour averaging period, the HIA are estimated using the equation below:

$$\text{Worker \& Resident: HIA} = [Q_{\text{lbph}} \times (\chi/Q)_{\text{lbhr}} \times \text{MWF}] / (\text{Acute REL})$$

Based on the Target Organs Tables¹⁶, the target organs for the TACs have been listed in Table E. The χ/Q values were taken from Attachment N, Table 7.7.

Note: The χ/Q values in Table 7.7 are based upon the maximum hourly emission rates.

Arsenic: $\text{HIA}_W = [8.30\text{E-}06 \times 107.4 \times 1] / (2.00\text{E-}01) = \mathbf{4.5\text{E-}03}$

$\text{HIA}_R = [8.30\text{E-}06 \times 10.44 \times 1] / (2.00\text{E-}01) = \mathbf{4.3\text{E-}04}$

Benzene: $\text{HIA}_W = [7.50\text{E-}03 \times 107.4 \times 1] / (2.70\text{E+}01) = \mathbf{3.0\text{E-}02}$

$\text{HIA}_R = [7.50\text{E-}03 \times 10.44 \times 1] / (2.70\text{E+}01) = \mathbf{2.9\text{E-}03}$

Dioxin: **There are no HIA REL values established for dioxin.**

Nickel hydroxide: $\text{HIA}_W = [2.30\text{E-}03 \times 107.4 \times 0.6332] / (2.00\text{E-}01) = \mathbf{7.8\text{E-}01}$

$\text{HIA}_R = [2.30\text{E-}03 \times 10.44 \times 0.6332] / (2.00\text{E-}01) = \mathbf{7.6\text{E-}02}$

(1) Worker: HIA_W (summed across each target organ)

TAC	AL	CV	REP/ DEV	EYE	HEM	IMM	NS	RESP	SKIN
Arsenic		5.61E-03	5.61E-03				5.61E-03		
Benzene			3.75E-02		3.75E-02	3.75E-02			
Dioxin									
Nickel hydroxide						9.84E-01			
TOTAL		5.61E-03	4.31E-02		3.75E-02	1.02E+00	5.61E-03		

¹⁶ Available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.

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(2) Resident: HIA_R (summed across each target organ)

TAC	AL	CV	REP/ DEV	EYE	HEM	IMM	NS	RESP	SKIN
Arsenic		4.15E-04	4.15E-04				4.15E-04		
Benzene			2.78E-03		2.78E-03	2.78E-03			
Dioxin									
Nickel hydroxide						7.29E-02			
TOTAL		4.15E-04	3.20E-03		2.78E-03	7.57E-02	4.15E-04		

Summary of Results

	MICR	HIC	HIC8	HIA
Worker	6.16 x 10 ⁻⁷	1.01E-01	8.76E-02	1.02E+00
Resident	1.72 x 10 ⁻⁷	7.87E-03	1.24E-03	7.57E-02
Rule 1401 Threshold	1.0 x 10 ⁻⁶	1.0	1.0	1.0
Exceeds Threshold?	No	No	No	Yes

RESULT:

- MICRs for residential and commercial receptors do not exceed 1 x 10⁻⁶ (one in one million).
- Calculation of cancer burden is not necessary.
- HIC and HIC8 for residential and off-site worker receptors, and HIA for residential receptors are less than 1.0 for all organ systems.
- HIA for off-site worker receptors is greater than 1.0 for all organ systems.

The equipment in this example does not contain T-BACT; therefore, it would pass the Rule 1401 limits for all but acute. A Tier 3 or 4 analysis is required for the HIA.

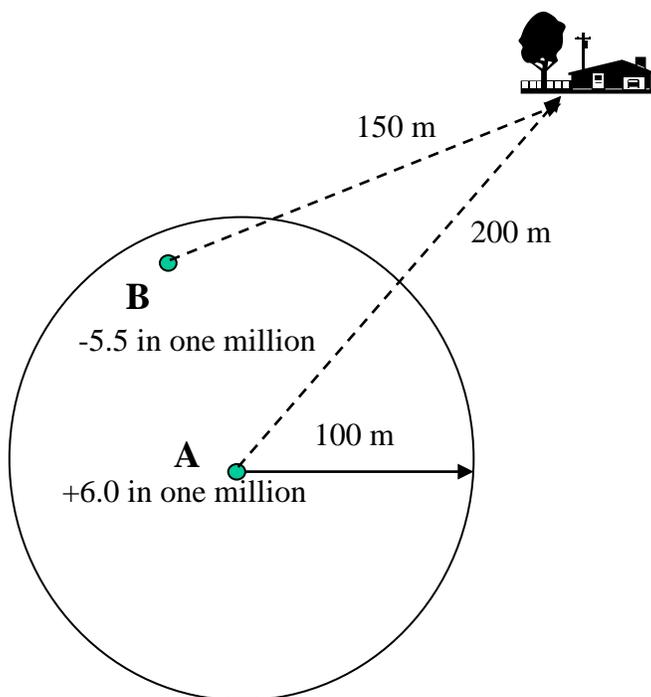
EXAMPLE 3: CONTEMPORANEOUS RISK REDUCTION

Rule 1401(g)(2)(A): The requirements of paragraph (d)(1) and (d)(4) shall not apply if the applicant demonstrates that a contemporaneous risk reduction resulting in a decrease in emissions will occur such that both of the following conditions are met:

- (i) no receptor location will experience a total increase in MICR of greater than one in one million due to the cumulative impact of both the permit unit and the contemporaneous risk reduction, and*
- (ii) the contemporaneous risk reduction occurs within 100 meters of the permit unit.*

T-BACT shall be used on permit units exempted under this subparagraph if the MICR from the permit unit exceeds one in one million (1.0×10^{-6}).

Note: All permit applications associated with the increases and decreases in risk for contemporaneous risk reduction must be submitted together and the reduction in risk must occur before the start of operation of the equipment that will have an increase in risk.



Assumptions:

Units A and B: Only have cancer impacts.

Unit A: New equipment, installed with T-BACT, MICR = 6.0 in one million

Unit B: Existing equipment with decreased MICR of 5.5 in one million due to change in operating conditions or process. Unit B emissions, prior to modification, resulted in an 8 in a million risk for the nearest receptor. After modification, Unit B risk is 2.5 in a million which is a decrease of 5.5 in a million.

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Receptor R1: The increased risk for Receptor R1 is the MICR for Unit A less the decrease in risk for Unit B.

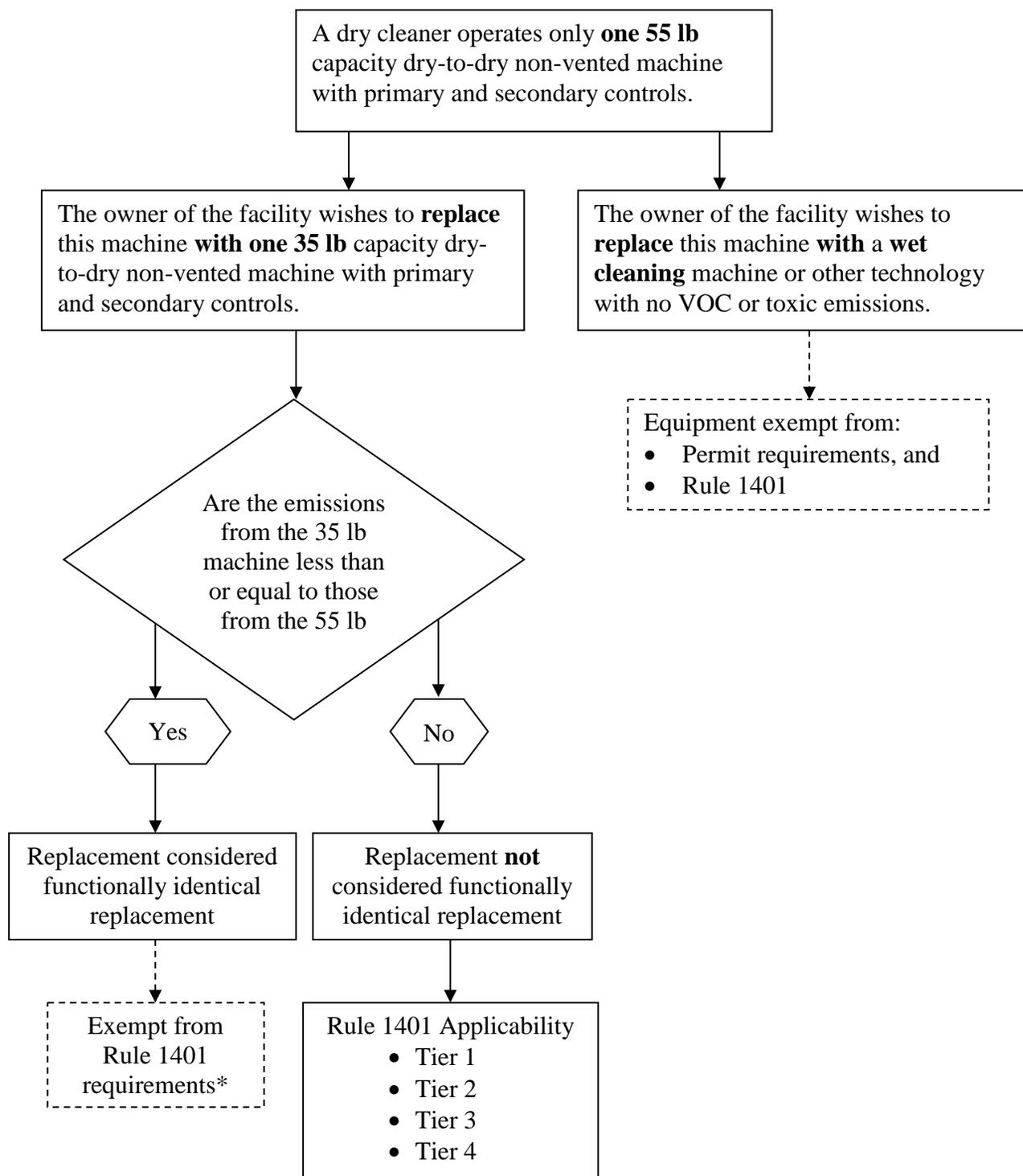
$$6.0 - 5.5 = \mathbf{0.5 \text{ in one million.}}$$

Note: This demonstration is best achieved with a Tier 4 analysis (detailed air dispersion modeling) and must be performed for all possible receptors.

RESULT:

- ***Equipment was installed using T-BACT.***
- ***No receptor experiences an increase in risk greater than one in one million.***
- ***The contemporaneous risk reduction occurs within 100 meters of the new equipment.***
- ***If all other rule requirements are met, a permit would be issued.***

EXAMPLE 4: FUNCTIONALLY IDENTICAL EQUIPMENT REPLACEMENT



• Rule 1421(d)(1)(F) allows for the functionally identical equipment replacement of **only one** machine. Please note that all perchloroethylene machines must comply with Rule 1402 as well. As of December 31, 2020, no new or existing dry cleaning facility may use a perchloroethylene dry cleaning system.

BEST AVAILABLE CONTROL TECHNOLOGY FOR TOXICS

T-BACT is not required if the MICR is less than or equal to one in one million. If cancer risk is greater than one in a million, T-BACT is required and must reduce risk to less than or equal to ten in one million.

SIC Codes, which describe industry types or classifications, or SCC Codes, which describe emitting processes or equipment, can be used to help identify T-BACT. If no standard is available, SCAQMD staff works with the applicant to identify T-BACT when required.

SCAQMD staff is continually examining and updating control technologies that comply with the definition presented in Rule 1401(c)(2). However, in many situations T-BACT is equivalent to BACT. The applicant is encouraged to contact the SCAQMD permit processing division for current T-BACT information.

T-BACT EXAMPLES

<i>Type of Industry:</i>	<i>Wood Finishing</i>
<i>Type of Emitting Process:</i>	<i>Wood Coatings</i>
<i>Specific TAC Emissions:</i>	<i>Ethylbenzene, Formaldehyde</i>
<i>Applicable BACT:</i>	<i>Thermal Oxidizer</i>
<i>T-BACT:</i>	<i>Thermal Oxidizer</i>

BACT = T-BACT

With T-BACT, risk is ten in one million or less

T-BACT is acceptable

<i>Type of Industry:</i>	<i>Metal Plating</i>
<i>Type of Emitting Process:</i>	<i>Nickel Plating, Chromium Plating</i>
<i>Specific TAC Emissions:</i>	<i>Nickel, Hexavalent chromium</i>
<i>Applicable BACT:</i>	<i>Wet Scrubber</i>
<i>T-BACT:</i>	<i>HEPA</i>

With T-BACT, risk is 10 in one million or less

T-BACT is acceptable

APPENDIX I

CALCULATION WORKSHEETS

MICR Calculation Worksheet
HIA Calculation Worksheet
HIC Calculation Worksheet
HIC8 Calculation Worksheet

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

MICR CALCULATION WORKSHEET

Facility Name: _____

Facility Address: _____

Description of Equipment: _____

Equipment is (circle one): **Point Source** or **Volume Source**

Toxic Air Contaminants Emitted by Equipment	Maximum Annual Emissions, Q_{lbyr} (lb/yr)	Maximum Annual Emissions, Q_{tpy} (ton/yr)	CP (Table 8.1)	MICR MP (Att. N, Table)	
				Resident	Worker
1.					
2.					
3.					

Equipment operates (circle one) ≤ 12 hr/day or > 12 hr/day

If equipment is a **point source**, enter **Stack Height:** _____ ft

If equipment is a **volume source**, enter **Building Height:** _____ ft & **Floor Area:** _____ ft²

Distance to nearest residential or sensitive receptor: _____ m &

Off-site worker receptor: _____ m

Nearest **SCAQMD meteorological station:** _____ (Appendix VI, Figure VI-1 & Table VI-1)

Select χ/Q and **WAF Tables** as follows (circle tables selected)

	Point Source	Volume Source
≤ 12 hr/day	Att. N, Tables 6.1 A, 6.2 A, 6.3 A	Att. N, Tables 7.1 A, 7.2 A, 7.3 A, 7.4 A, 7.5 A, 7.6 A
> 12 hr/day	Att. N, Tables 6.1 B, 6.2 B, 6.3 B	Att. N, Tables 7.1 B, 7.2 B, 7.3 B, 7.4 B, 7.5 B, 7.6 B

Select **CP** and **MP** from Attachment N, Table 3.1 and the Consolidated Health Values Table found at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

χ/Q value for nearest residential/sensitive receptor: _____

for nearest off-site worker receptor: _____

WAF value for nearest residential/sensitive receptor: 1.0

for nearest off-site worker receptor: _____

CEF value for nearest residential/sensitive receptor: 677.40

for nearest off-site worker receptor: 55.86

MICR CALCULATION

TACs	CP	Q_{tpy}	χ/Q	CEF	MP	WAF	10^{-6}	MWAF	MICR
1.		x	x	x	x	x	x 10^{-6}	x	=
2.		x	x	x	x	x	x 10^{-6}	x	=
3.		x	x	x	x	x	x 10^{-6}	x	=
4.		x	x	x	x	x	x 10^{-6}	x	=

MICR = _____

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

HIC CALCULATION WORKSHEET

Target Organ/System*: (Target Organs Tables are available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.)

Facility Name: _____

Facility Address: _____

Description of Equipment: _____

Equipment operates (circle one) **≤ 12 hr/day** or **> 12 hr/day**

Equipment is (circle one): **Point Source** or **Volume Source**

If equipment is a **point source**, enter:

Stack Height: _____ ft

If equipment is a **volume source**, enter

Building Height: _____ ft & **Floor Area:** _____ ft²

Distance to **nearest residential or sensitive receptor:** _____ meters

Distance to **nearest off-site worker receptor:** _____ meters

Nearest **SCAQMD meteorological station:** _____ (Appendix VI, Figure VI-1 & Table VI-1)

Select χ/Q as follows (circle tables selected)

	Point Source	Volume Source
≤ 12 hr/day	Att. N, Tables 6.1 A, 6.2 A, 6.3 A	Att. N, Tables 7.1 A, 7.2 A, 7.3 A, 7.4 A, 7.5 A, 7.6 A
> 12 hr/day	Att. N, Tables 6.1 B, 6.2 B, 6.3 B	Att. N, Tables 7.1 B, 7.2 B, 7.3 B, 7.4 B, 7.5 B, 7.6 B

Select **Chronic REL** and **Chronic MP** from Attachment N, Table 3.2 and the Consolidated Health Values Table, found at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Toxic Air Contaminants Emitted by Equipment	Maximum Annual Emissions, Q _{lby} (lb/yr)	Maximum Annual Emissions, Q _{tpy} (ton/yr)	Dispersion Factor (χ/Q)	Chronic Reference Exposure Level (REL)	Chronic Multi-pathway Factor (MP)
1.					
2.					
3.					
2.					
3.					

HIC CALCULATION:

$\Sigma [(Q_{tpy}) \times (\chi/Q) \times MP] / (\text{Chronic REL})$ for each TAC

TACs	Q _{tpy}	χ/Q	MP	REL	HIC
1.	x	x	/	=	
2.	x	x	/	=	
3.	x	x	/	=	

* A worksheet needs to be filled out for each affected target organ/system.

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HIC8 CALCULATION WORKSHEET

Target Organ/System*: (Target Organs Tables are available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.)

Facility Name: _____

Facility Address: _____

Description of Equipment: _____

Equipment operates (circle one) **≤ 12 hr/day** or **> 12 hr/day**

Equipment is (circle one): **Point Source** or **Volume Source**

If equipment is a **point source**, enter:

Stack Height: _____ ft

If equipment is a **volume source**, enter

Building Height: _____ ft & **Floor Area:** _____ ft²

Distance to **nearest residential or sensitive receptor:** _____ meters

Distance to **nearest off-site worker receptor:** _____ meters

Nearest **SCAQMD meteorological station:** _____ (Appendix VI, Figure VI-1 & Table VI-1)

Select χ/Q as follows (circle tables selected)

	Point Source	Volume Source
≤ 12 hr/day	Att. N, Tables 6.1 A, 6.2 A, 6.3 A	Att. N, Tables 7.1 A, 7.2 A, 7.3 A, 7.4 A, 7.5 A, 7.6 A
> 12 hr/day	Att. N, Tables 6.1 B, 6.2 B, 6.3 B	Att. N, Tables 7.1 B, 7.2 B, 7.3 B, 7.4 B, 7.5 B, 7.6 B

Select **8-Hour Chronic REL** from the **Consolidated Health Values Table** found at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>; and **WAF** from Attachment N, Tables 5.1 or 5.2 for **off-site worker receptor only**

Toxic Air Contaminants Emitted by Equipment	Maximum Annual Emissions, Q _{lbyr} (lb/yr)	Maximum Annual Emissions, Q _{tpy} (ton/yr)	Dispersion Factor (χ/Q)	Worker Adjustment Factor (WAF)	Chronic Reference Exposure Level (REL)
1.					
2.					
3.					

HIC8 CALCULATION:

$\Sigma [(Q_{tpy}) \times (\chi/Q) \times WAF] / (8\text{-Hour Chronic REL})$ for each TAC

TAC	Q _{tpy}	χ/Q	WAF	REL	HIC8
1.	x	x	/	=	
2.	x	x	/	=	
3.	x	x	/	=	

* A worksheet needs to be filled out for each affected target organ/system.

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HIA CALCULATION WORKSHEET

Target Organ/System*: (Target Organs Tables are available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.)

Facility Name: _____

Facility Address: _____

Description of Equipment: _____

Equipment is (circle one): **Point Source** or **Volume Source**

If equipment is a **point source**, enter:

Stack Height: _____ ft

If equipment is a **volume source**, enter

Building Height: _____ ft & **Floor Area:** _____ ft²

Distance to **nearest residential or sensitive receptor:** _____ meters

Distance to **nearest off-site worker receptor:** _____ meters

Nearest **SCAQMD meteorological station:** _____ (Appendix VI, Figure VI-1 & Table VI-1)

Select χ/Q : _____

Select χ/Q : from Attachment N, Table 6.4 if Point Source or from Attachment N, Table 7.7 if Volume Source

Select **Acute REL** from the Consolidated Health Values Table found at

<https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Toxic Air Contaminants Emitted by Equipment	Maximum Hourly Emissions, Q_{lbph} (lb/hr)	Peak Hourly Dispersion Factor χ/Q	Acute Reference Exposure Level (REL)
1.			
2.			
3.			

HIA CALCULATION:

$[Q_{lbph} \times (\chi/Q)] / (\text{Acute REL})$

	TAC	Q_{lbph}	χ/Q	REL	HIA
1.		x	/		=
2.		x	/		=
3.		x	/		=

* A worksheet needs to be filled out for each affected target organ/system.

APPENDIX II

DERIVATION OF TIER 2 MP ADJUSTMENT FACTORS

INTRODUCTION

Toxic air contaminants (TACs) enter the body through a number of routes: inhalation; absorption through the skin; and ingestion from contaminated food, water, milk and soil. To account for uptake of toxics through routes of exposure other than inhalation, risk assessments often include a multi-pathway exposure analysis.

To simplify the screening risk assessment, MP adjustment factors were developed. The inhalation risk is multiplied by the MP adjustment factors to account for the additional health risk due to other pathways of exposure.

The MP adjustment factors were developed using the Risk Assessment Standalone Tool (RAST) build 15071, a computer software package that calculates risks based on ground level concentrations (GLC). Assumptions and parameters used to develop the MP adjustment factors are listed below:

Risk assessment options:

- Deposition velocity – 0.02 m/sec
- OEHHA default exposures are assumed for mother’s milk, homegrown produce, and soil exposure
- A ‘warm’ climate, typical for Southern California is assumed for the dermal exposure pathway
- For non-cancer chronic risk estimates, the “OEHHA Derived Method” risk analysis method is used. In this approach, the inhalation pathway is always considered a driving pathway, the next two dominant (driving) exposure pathways use the high-end point-estimates of exposure, while the remaining exposure pathways use mean point estimates.
- For residential cancer risk estimates, the “RMP (Derived) Method” risk analysis method is used. In this method, if inhalation is one of the top two dominant pathways, the method uses the breathing rate at 95th percentile of exposure for ≤ 2 years of age, and the breathing rate at the 80th percentile exposure for > 2 years of age. If inhalation is not the top two dominant pathways, it uses mean. For worker cancer risk, the “OEHHA Derived Method” risk analysis method is used.
- Pathways considered for residential exposure include inhalation, soil ingestion, dermal absorption, homegrown produce, and mother’s milk.
- Pathways considered for worker exposure include inhalation, soil ingestion, and dermal absorption.
- The cancer risk estimates, including the Derived equations (both OEHHA and Adjusted), are based on 30-year exposures.
- The chronic MP adjustment factors (resident and worker) for the group listing of polychlorinated biphenyls (CAS number 57465-28-8) has been assigned those of its individual subspecies (243.908 and 10.82, respectively). (The group listing of PCBs does not include the Toxicity Equivalency Factors as developed by the World Health Organization 1997 and as adopted by the 2015 OEHHA Guidelines). PCB 126 (‘,3’,‘,4’,5-Pentachlorobiphenyl, CAS number 57465-28-8) was used in the calculation of the screening approach since it has the most stringent REL. In a case that a facility provides

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speciated PCB data, or other justification is available, different MP adjustment factors can be used subject to SCAQMD approval.

APPENDIX III

**PROCEDURES FOR ADDRESSING NON-DETECTED COMPOUNDS
AND BLANKS IN RISK ASSESSMENT**

INTRODUCTION

This appendix describes guidelines for estimating emissions of non-detected toxic air contaminants (TACs) and using blanks in emissions estimations for purposes of preparing health risk assessments for Rules 1401, 1402 and the Air Toxics “Hot Spots” Program (AB2588 Program). Procedures are the same for preparing risk assessments for Rules 1401, 1402 and the AB2588 Program, however the lists of compounds are different. Rule 1401 uses only cancer potency factors (CP) and reference exposure levels (RELs) approved by the Scientific Review Panel and prepared by the state Office of Environmental Health Hazard Assessment (OEHHA), whereas Rule 1402 and the AB2588 Program use different sources for CPs and RELs, including draft numbers.

Under previous policy, the SCAQMD required that if a TAC could be present in emissions from a source but not detected during air testing, it must be assumed to be present below the limit of detection (LOD). This approach has been applied to stack testing, to measurements such as laboratory analysis of materials, and other monitoring and measurement methods. The concentration of non-detected TACs were to be reported as one-half (1/2) of the LOD.

Concerns were raised that this policy of carrying undetected TACs through a health risk assessment at half the LOD could inflate risk estimates and might require facilities to install control equipment for emissions that may not be present. In addition, it would not be possible to detect the TAC after its emissions had been controlled and reduced.

Also, in the past, the SCAQMD did not allow any adjustments in the measured values of samples based on the results of reagent blanks. Concerns were raised that in certain cases the concentration of TACs measured in reagent blanks should be deducted from the actual measured samples.

To address these concerns, SCAQMD staff worked closely with affected facilities such as publicly owned treatment works (POTWs) and others during previous rulemaking efforts for Rules 1401 and 1402 to develop guidelines for addressing non-detected TACs and blanks in risk assessment.

OVERVIEW

The new approach begins with an initial level of screening to determine whether or not a TAC is likely to be present and therefore should be tested for. If the conditions in the screening guidelines are met, no further testing or analysis is required. If a TAC does not pass the screening guidelines, the facility must quantify and report the emissions of the compound through testing or other methods as approved by SCAQMD staff. The reported emission levels are calculated based on the number of test runs or analyses that are below the LOD.

SCREENING GUIDELINES

For a TAC to be excluded from testing or analysis and hence quantification for health risk assessment, it must meet either condition A, B, or C listed below.

Proof for exclusion of any TAC based on literature studies on physical nature or chemistry of the compounds to substantiate the findings, and any prior analysis or testing shall be deemed complete

for SCAQMD approval. Any prior testing must have been conducted according to SCAQMD's approved test methods or other recognized standards, as approved by SCAQMD staff.

If a list of TACs to be tested for is agreed upon but is subsequently discovered by the facility or the SCAQMD that additional compounds may be present, SCAQMD staff may require that the facility test for the presence of the additional TACs.

The screening criteria to be used for determining the presence of TACs are the following.

Condition A: No likelihood of the presence of a TAC

A facility may choose to demonstrate that there is no likelihood of a TAC being present in the raw materials, process streams or materials introduced into the equipment or process. The methodology or documentation to show proof of the non-existence of the TAC must be deemed complete with the source test protocol or test method analysis protocol for SCAQMD approval. If the evidence to substantiate the absence of a TAC is insufficient, or SCAQMD staff has reason to believe that the TAC may be present, it must be tested for and quantified (see Cases 1, 2, and 3).

For example, a facility operator can demonstrate the absence of cadmium in emissions from the melting of lead ingots in a pot furnace by presenting the following documentation:

- Certified analysis of the lead ingots showing that cadmium is not a constituent of the ingot.
- Description of the process substantiating that no other material is added to the furnace that will contribute to cadmium emissions. The operator must also provide analysis for the fuel used in the process to demonstrate that it does not contain cadmium.
- Documentation substantiating that melting lead ingots without cadmium present in the ingot in a pot furnace will not result in the emissions of cadmium when the firebricks or pot liner are heated during the melting operations.

In addition, the facility operator may submit test results based on tests performed within the last two years, or a longer period if the facility can demonstrate that no significant changes have occurred to the SCAQMD-approved test method, process equipment or process materials that indicate cadmium was reported as below LOD.

Condition B: Absence of a TAC or its precursors in the process

If there is any evidence that precursors, which could lead to formation of a TAC during a process or reaction, may be present, then a facility may have to test for the TAC. To be excluded from testing and quantification requirements, the facility must provide documentation to demonstrate, based on test results, that none of the essential precursors are present in the material or process. This is similar to the previous criteria and differs only in that precursor compounds that could contribute to the formation of the subject TAC must also be identified as not being present.

An example is emission of dioxins from a waste incinerator. In this case, test data may be available to show that there are no dioxins present in the waste stream being incinerated. However, the

presence of chlorine and hydrocarbons in the combustion process could result in the formation of products of incomplete combustion (PICs) such as dioxins or other toxic compounds. Testing for these compounds would be required unless the facility operator demonstrates that none of the essential precursors are present in the waste stream or the process itself.

Condition C: Special TAC list for POTWs

Unlike other industrial sources whose potential toxic air emissions are relatively well defined and which contain limited species, proving the absence of TACs from emissions from POTWs is more difficult. This is because the instantaneous discharge of wastewater from various residential, commercial and industrial system users could potentially result in the presence of different toxic contaminants in the influent sewage. Therefore, it is recommended that a special TAC list be developed for POTWs to select appropriate TACs for testing and determination of health risk associated with air emissions from liquid phase and sludge treatment processes.

The special TAC list for POTWs will be approved by SCAQMD staff with consideration given to information including but not limited to the following:

1. The Pooled Emission Estimating Program (PEEP) identified and selected compounds under the AB2588 Program, as approved by SCAQMD staff.
2. The Joint Emissions Inventory Program (JEIP) identified and selected compounds under SCAQMD Rule 1179 – Publicly Owned Treatment Works Operations inventory requirements, as approved by SCAQMD staff.
3. TACs that have a reasonable likelihood of being present in the air emissions of POTWs, based on other test results or information sources, as approved by SCAQMD staff.

Additionally, based on the specific sources of sewage for certain POTWs, specific TACs in addition to the ones identified through the above steps could be added or deleted from the list on a case-by-case basis.

Based on the special TAC list for POTWs as developed from the above procedure and subject to approval by SCAQMD staff, facilities will be required to quantify the listed compounds through testing or other methods approved by SCAQMD staff for inclusion in the health risk assessment. The facility will not have to test for compounds not included in the special TAC list for POTWs, and the inclusion of non-listed TACs in the health risk assessment is not required. However, if after the industry-specific list is developed and approved, the facility or the SCAQMD later discovers information that additional TACs may be present, SCAQMD staff may revise the industry-specific list and may require the facility to quantify emissions of such TACs that were previously excluded from quantification.

QUANTIFICATION OF EMISSIONS BASED ON SOURCE TEST RESULTS

The cases listed below explain the process for quantification of emissions based on the source test results.

Treatment of Test Runs Below LOD

If some test runs are below LOD, quantification of the TAC depends on the percent of the test runs and analyses that are below LOD. Three possible scenarios are discussed below. In all of these cases, all of the following three conditions must be met:

1. All tests should be performed using SCAQMD-approved test methods, triplicate sample runs and SCAQMD-approved detection limits. When non-detected values are reported, the actual analytical limit of detection for all runs and the number of sample runs shall be reported; and
2. The data from the analyses or tests were obtained within a period of two years prior to the time the data is to be used by SCAQMD staff, unless the facility demonstrates to the SCAQMD's satisfaction that earlier test data remain valid due to lack of significant changes in test methods, process equipment or process materials; and
3. For cyclic operations or variations in feedstock, the tests or analyses conducted should be representative of the variations in loads, feed rates and seasons, if applicable. In such cases, an adequate number of test runs should be conducted for all cyclic or seasonal operations.

Case #1: TAC is not detected in any test runs or analyses

In situations in which all test runs and analyses consistently indicate levels below the LOD, the compound can be identified as "not detected" and its inclusion in the health risk assessment will not be required, provided all three conditions listed above are met.

Case #2: TAC is detected in less than 10% of the test runs or analyses

In situations in which a compound has been detected and the percentage of samples in which it is detected is less than ten percent, and provided that all three conditions listed above are met, the following procedure shall be used to average the results:

1. For those runs or analyses that were below LOD, assign zero.
2. Average the measured values obtained for the runs that were above LOD with zero values for the runs below LOD and report the final average result for use in the risk estimation.

Case #3: TAC is detected in 10% or more of the test runs or analyses

In cases in which ten or more percent of the test runs and analyses show measured values of a TAC above the LOD, and provided that all three condition listed above are met, the following procedure shall be used to average the results:

1. For those runs or analysis that were below LOD, assign one half (1/2) of the corresponding LOD for each run.

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2. Average the measured values obtained for the runs that were above LOD with 1/2 LOD values for the runs below LOD and report the final average result for use in the risk estimation.

In cases in which there are fewer than ten samples (for example, two triplicate samples have been taken) and a TAC has been detected in one or more samples, the following procedures shall be used.

- If the TAC is detected in one sample, use Case #2.
- If the TAC is detected in two or more samples, use Case #3.

Use of Reagent Blanks

Reagent blank values may be subtracted from sample values under the conditions specified below. In order to use these procedures, it will be necessary to obtain from SCAQMD staff, prior to the test or analyses, a determination as to the maximum allowable value for the blank.

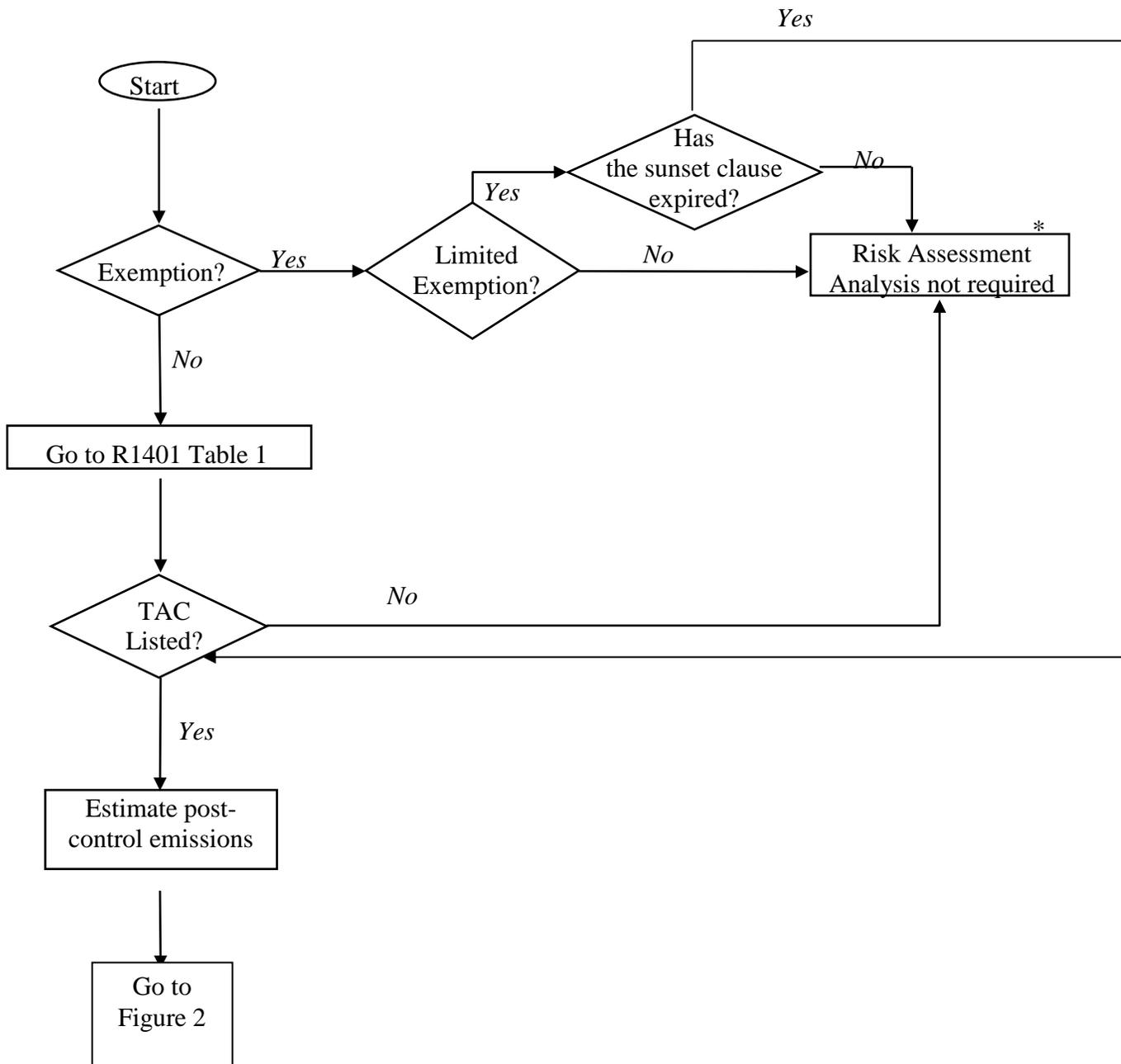
If the level of the TAC in the reagent blank is less than or equal to the maximum allowable blank, the reagent blank may be subtracted. The data must be reported with and without the correction. If the level of the TAC in the reagent blank is greater than the maximum allowable blank and the concentration of the sample is greater than three times the reagent blank value, then the maximum allowable reagent blank value can be subtracted. The data must be reported with and without correction.

APPENDIX IV

FLOW CHARTS AND DIAGRAMS

Note: The reader needs to ascertain the date in which the subject equipment's permit application was deemed complete. This date is used to identify the correct set of permitting tables (see Attachments) to be used for permit processing.

Figure 1
Preliminary Tasks



* Consult with SCAQMD staff for other TACs not listed in Attachment N, Table 1.0, which potentially endanger public health or may require a Rule 212 evaluation.

Figure 2
Tier 1 - Screening Levels

Tier 1 involves comparing emissions or source specific units from a piece of equipment to Screening Levels

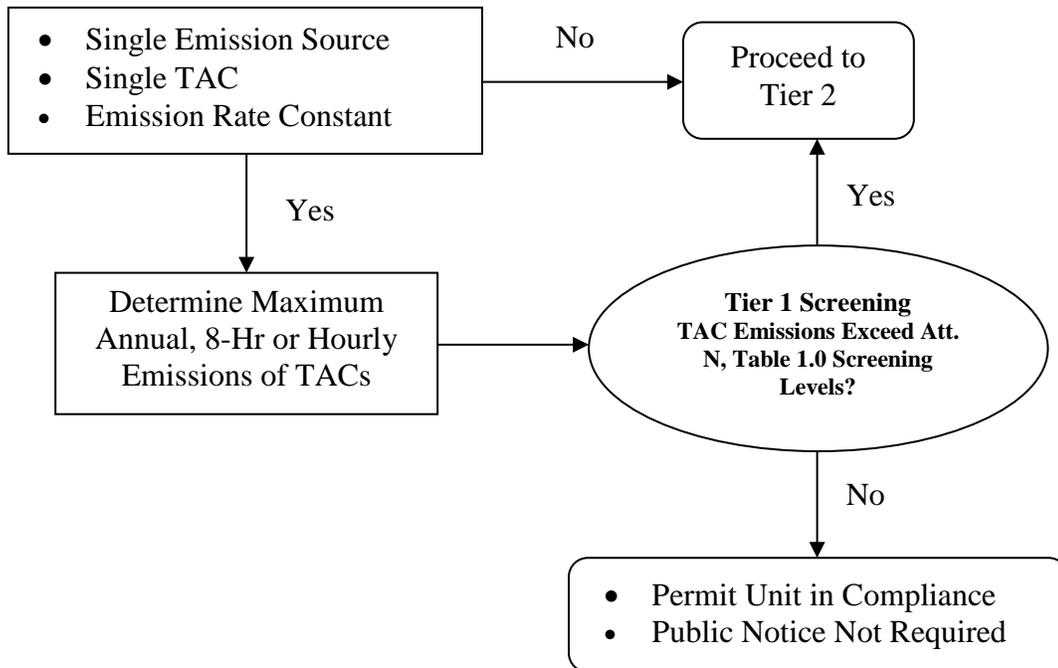
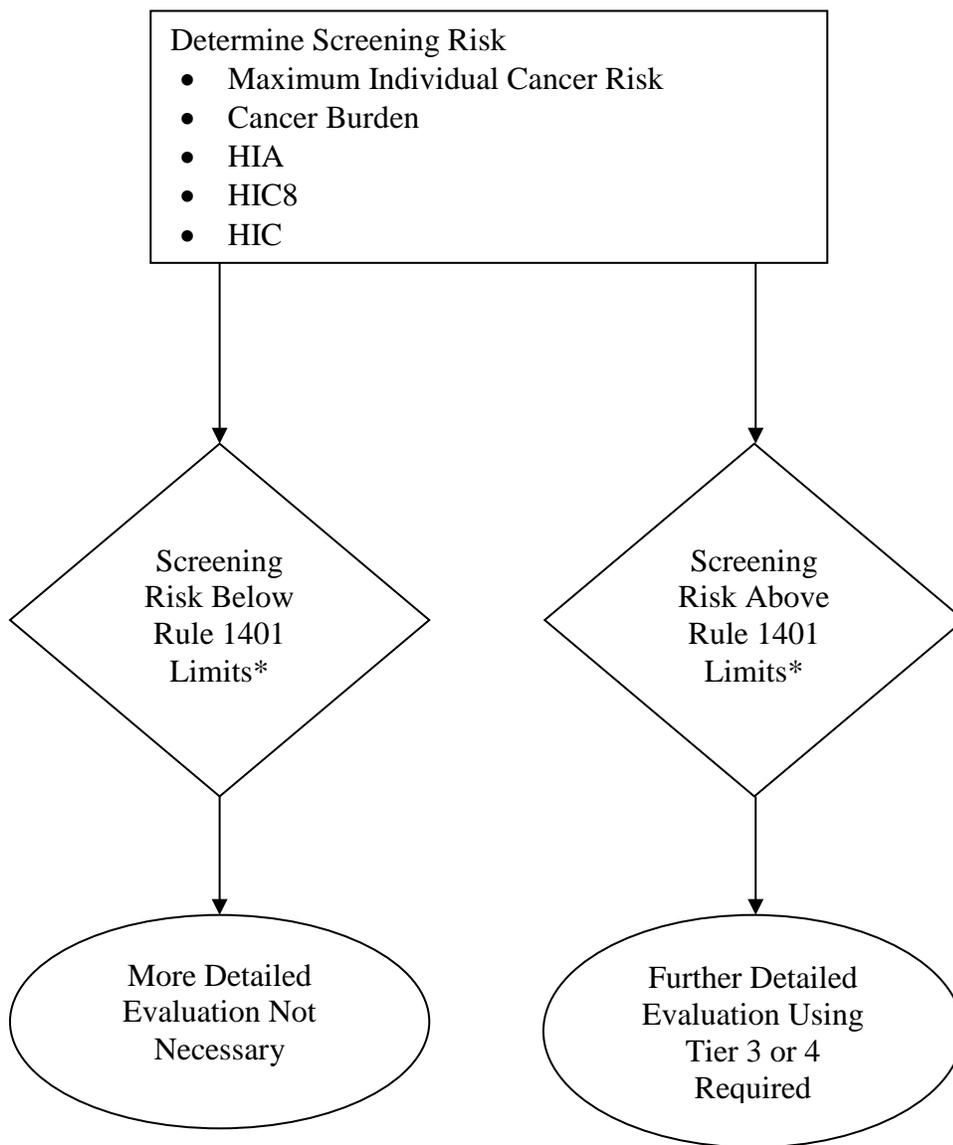


Figure 3A
Tier 2 - Screening Levels

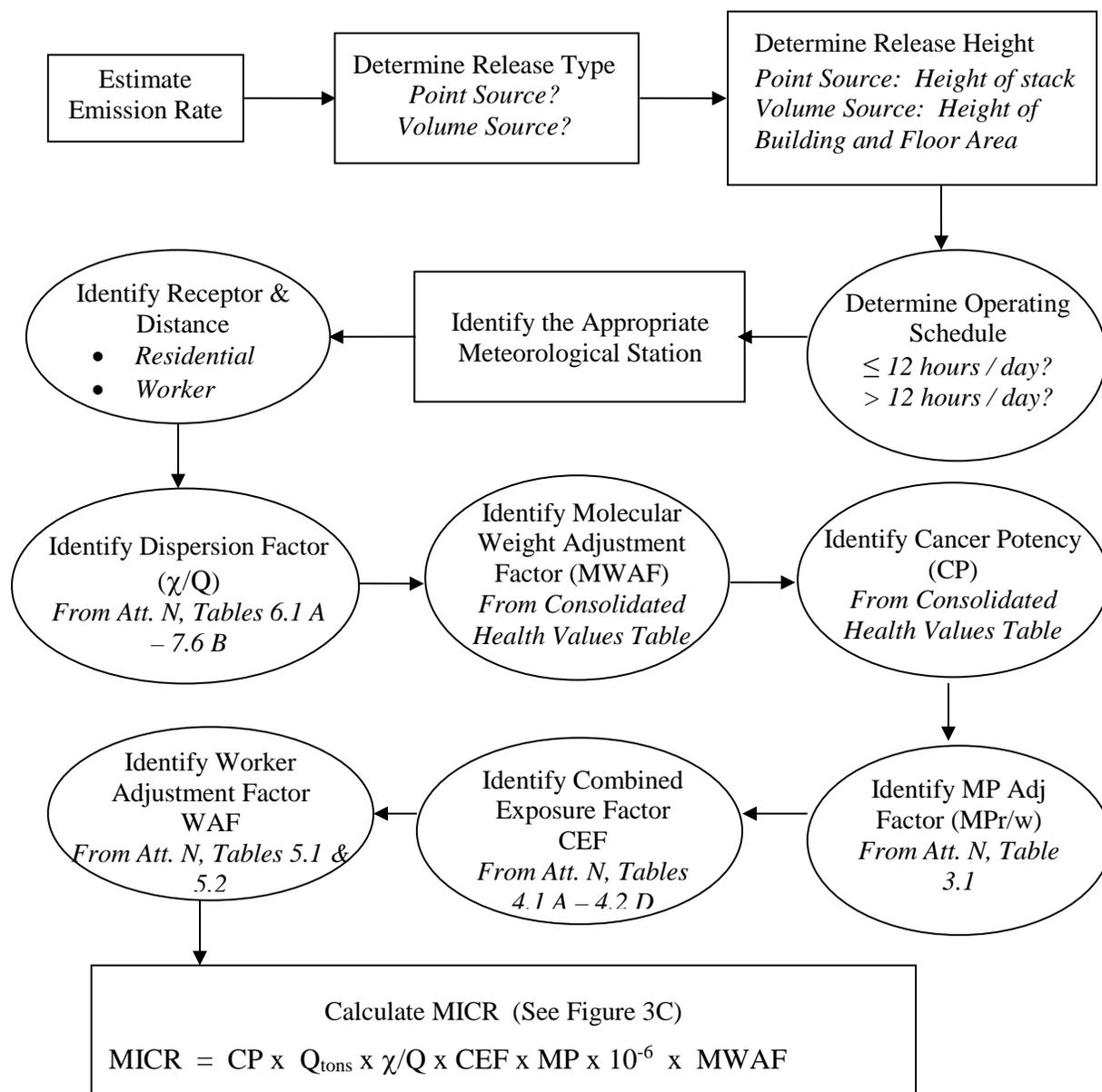
Tier 2 is a screening risk assessment, which includes procedures for determining level of risk from MICR, Cancer Burden, HIA, HIC8 & HIC



* *Level of Concern:*

- *MICR exceeds one in one million with no T-BACT*
- *MICR exceeds ten in one million with T-BACT*
- *Cancer burden exceeds 0.5*
- *HIA, HIC8 or HIC exceeds 1 for any target organ system*

Figure 3B
Tier 2 - MICR Calculation



*If MICR exceeds one in one million, cancer burden must also be estimated.
 (See Figure 4.)*

Note that the Consolidated Health Values Table is available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

Figure 3C
 Tier 2 - MICR Equation

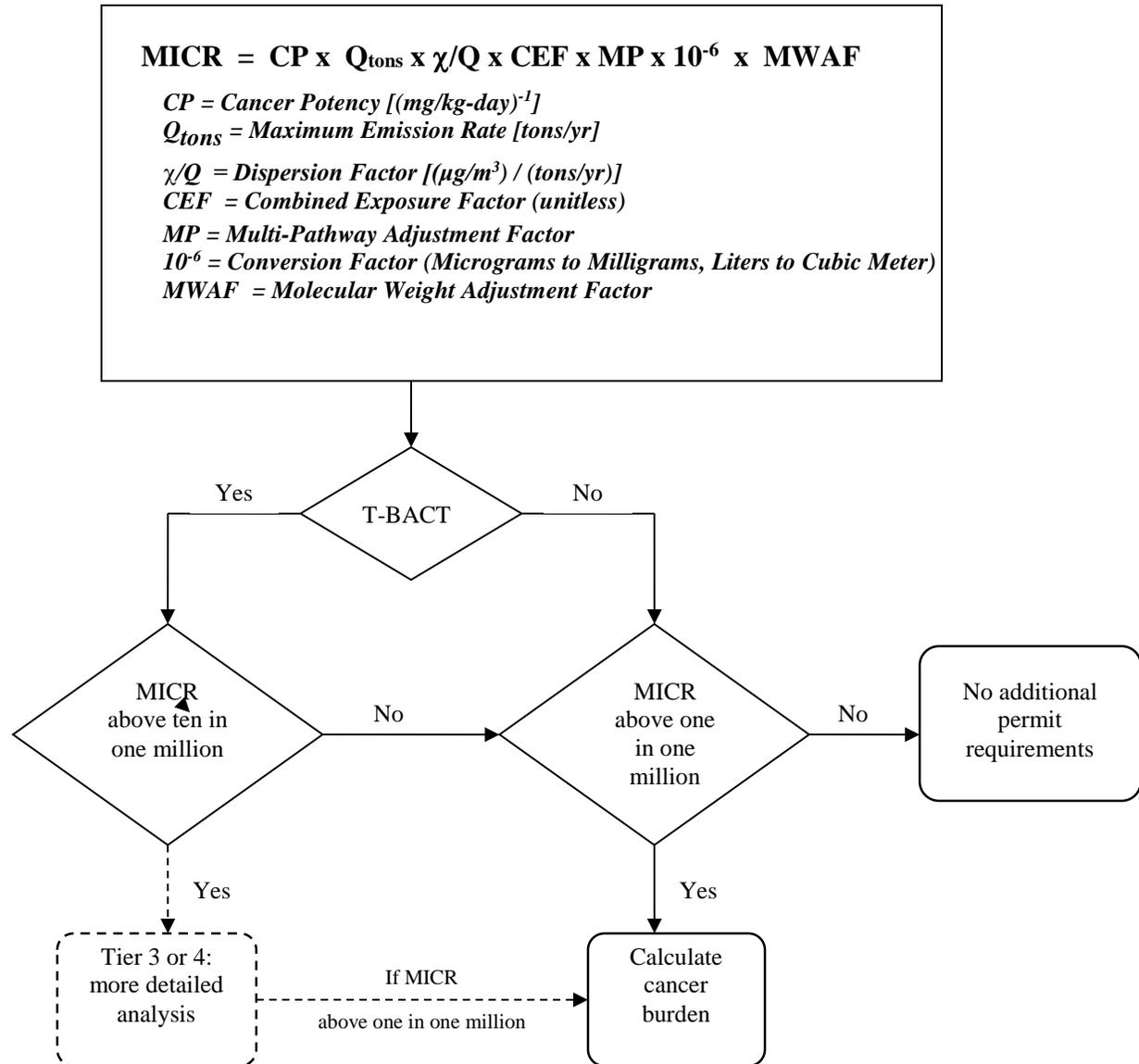


Figure 3D
Tier 2 - χ/Q

(χ/Q): Numerical estimates of the amount of decrease in concentration of a contaminant as it travels away from the site of release.

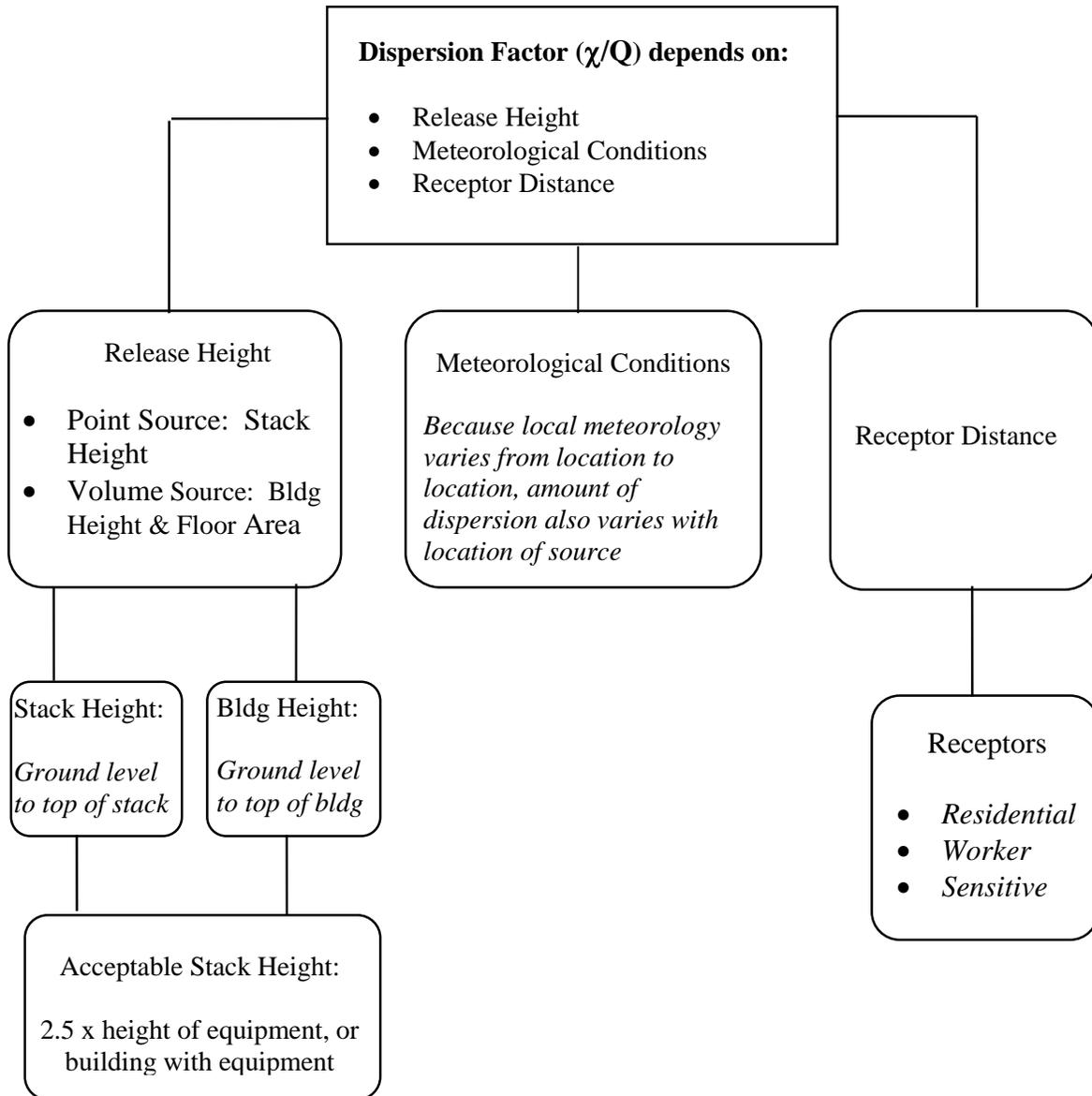


Figure 3E
Tier 2 - MP Adjustment Factor

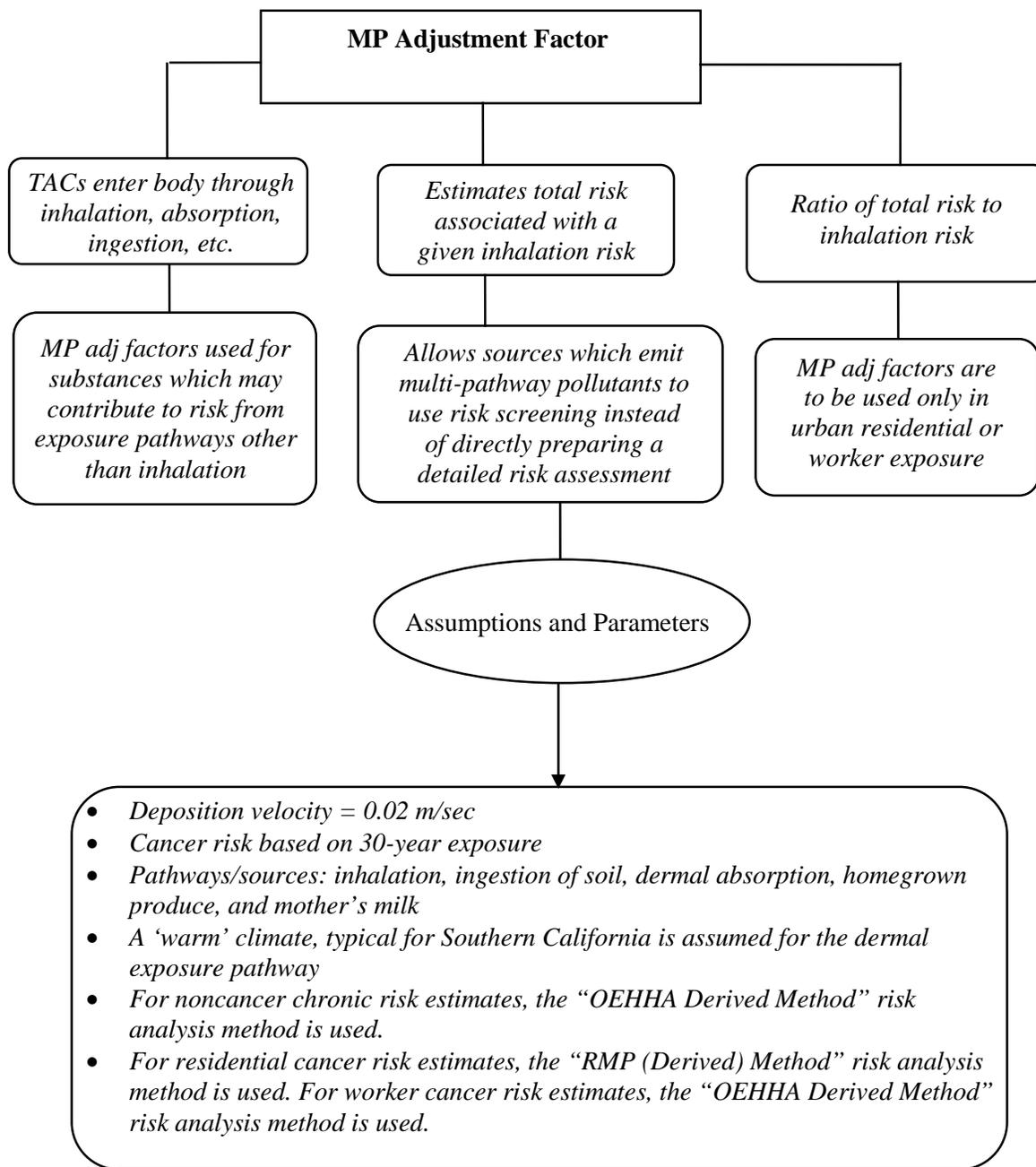


Figure 3F
Tier-2 - CEF

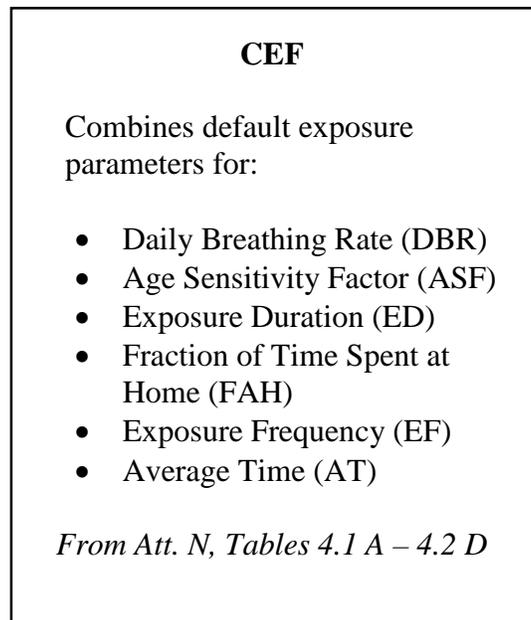


Figure 4
Cancer Burden

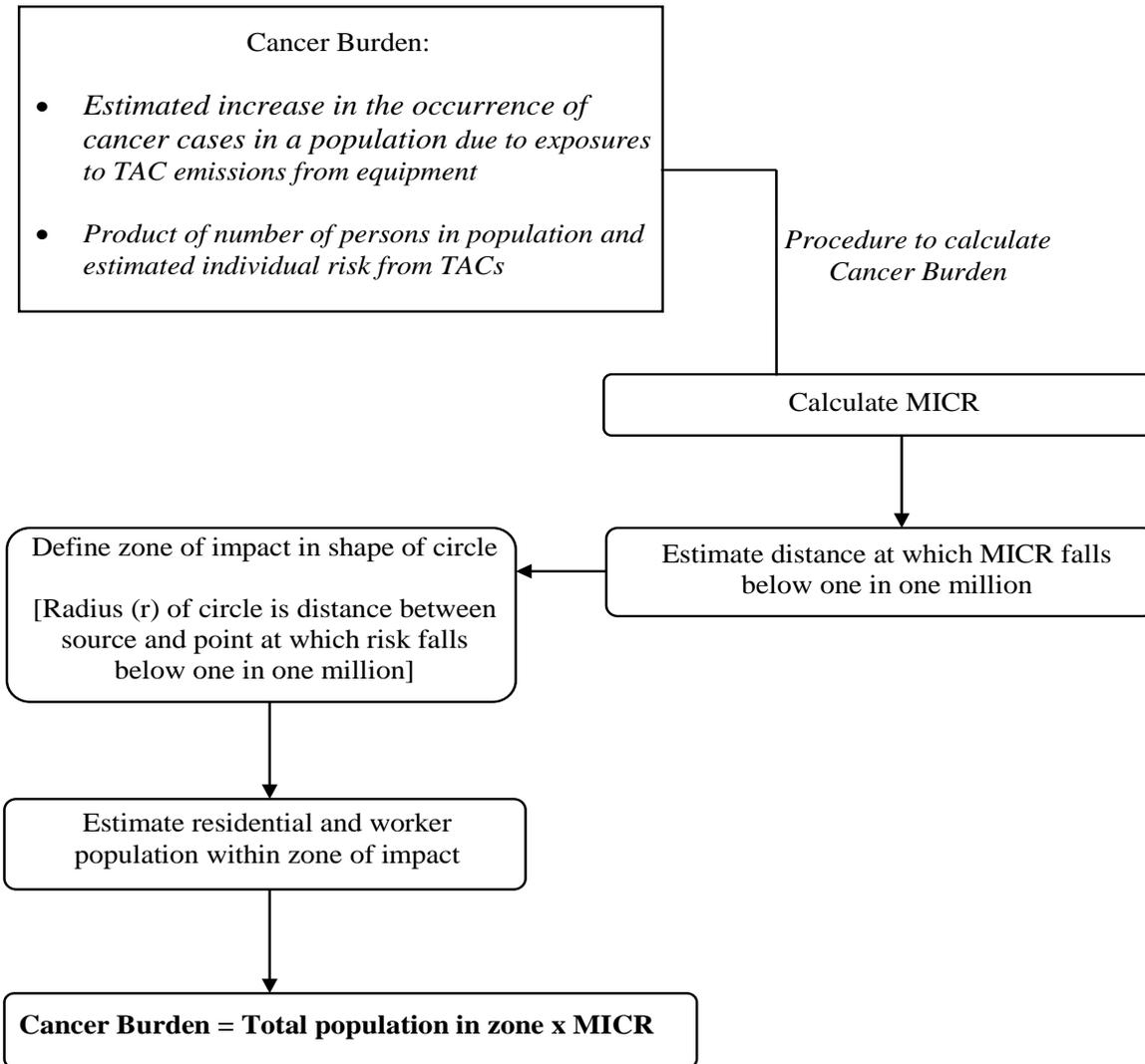
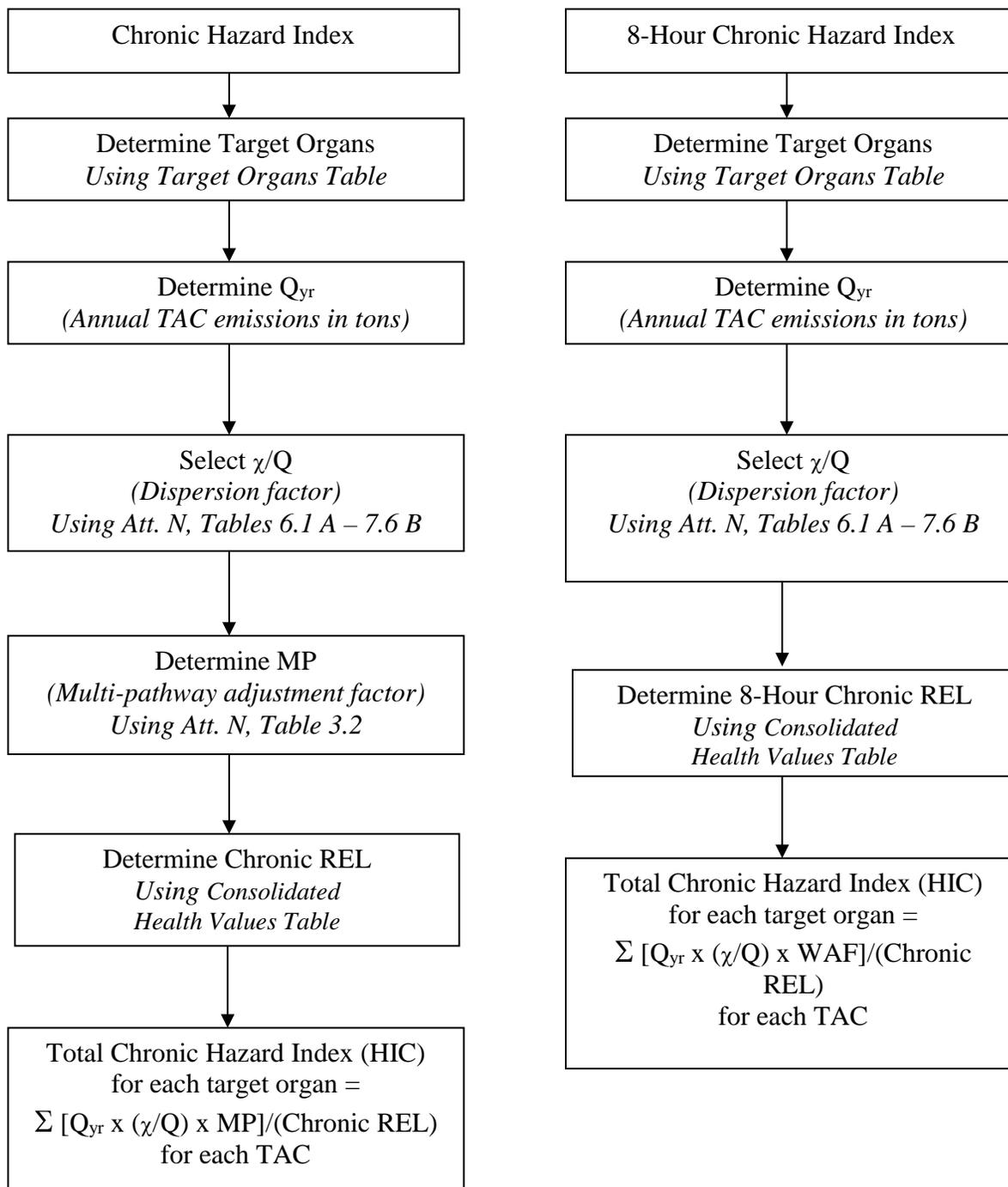
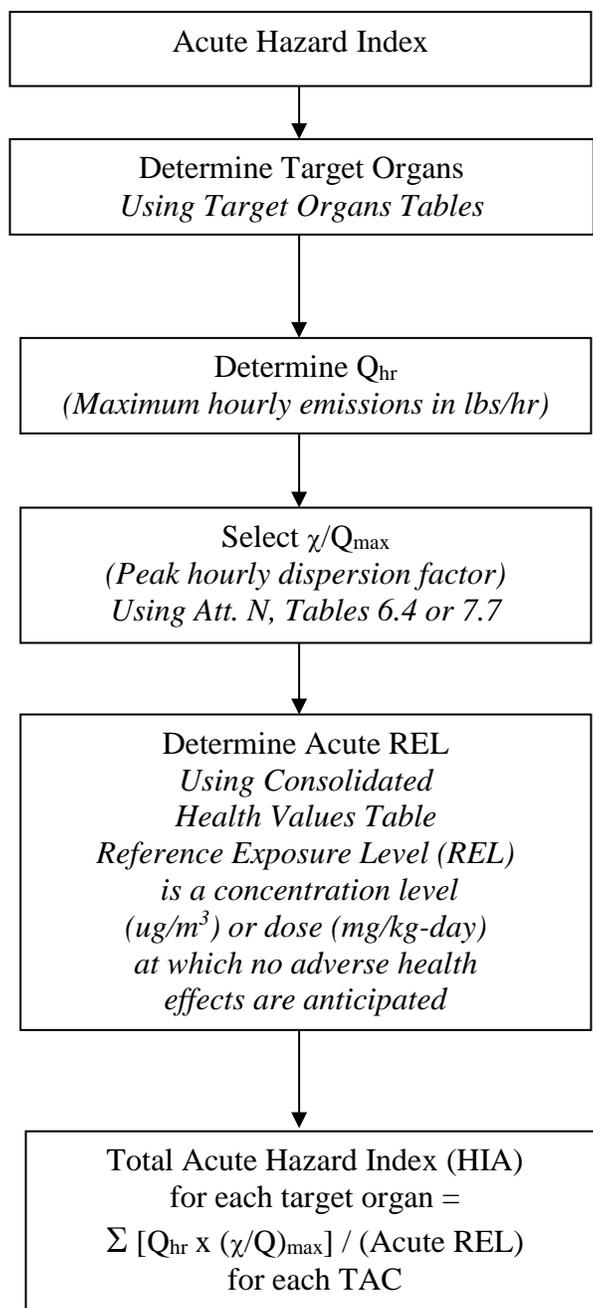


Figure 5
HIC and HIC8



Note that the Consolidated Health Values Table is available on CARB’s website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf> and the Target Organs Tables are available on CARB’s website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.

Figure 6
HIA



Note that the Consolidated Health Values Table is available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf> and the Target Organs Tables are available on CARB's website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.

APPENDIX V

RULE 1401 EXEMPTION PROVISIONS

Exemption Provisions

Rule 1401 (g)(1)(A): Permit Renewal or Change of Ownership

Any equipment which is in continuous operation, without modification or change in operating conditions, for which a new permit to operate is required solely because of permit renewal or change of ownership.

Rule 1401 (g)(1)(B): Modification with No Increase in Risk

A modification of a permit unit that causes a reduction or no increase in the cancer burden, MICR or acute or chronic HI at any receptor location.

Rule 1401 (g)(1)(C): Functionally Identical Replacement

A permit unit replacing a functionally identical permit unit, provided there is no increase in maximum rating or increase in emissions of any toxic air contaminants. For replacement of dry cleaning permit units only, provided there is no increase in any toxic air contaminants.

Rule 1401 (g)(1)(D): Equipment Previously Exempt Under Rule 219

Equipment which previously did not require a written permit pursuant to Rule 219 that is no longer exempt, provided that the equipment was installed prior to the Rule 219 amendment eliminating the exemption and a complete application for the permit is received within one (1) year after the Rule 219 amendment removing the exemption.

Rule 1401 (g)(1)(E): Modifications to Terminate Research Projects

Modifications restoring the previous permit conditions of a permit unit, provided that: the applicant demonstrates that the previous permit conditions were modified solely for the purpose of installing innovative control equipment as part of a demonstration or investigation designed to advance the state of the art with regard to controlling emissions of toxic air contaminants; the emission reductions achieved by the demonstration project are not used for permitting any equipment with emission increases under the contemporaneous emission reduction exemption as specified in paragraph (g)(2); the demonstration project is completed within two (2) years; and a complete application is submitted no later than two (2) years after the date of issuance of the permit which modified the conditions of the previous permit for the purpose of the demonstration or investigation.

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Rule 1401 (g)(1)(F): Emergency Internal Combustion Engines

Emergency internal combustion engines that are exempted under Rule 1304.

Rule 1401 (g)(1)(G): Wood Product Stripping (Expired)

Wood product stripping permit units, provided that the risk increases due to emissions from the permit unit owned or operated by the applicant for which complete applications were submitted on or after July 10, 1998 will not exceed a MICR of 100 in one million (1.0×10^{-4}) or a total acute or chronic hazard index of five (5) at any receptor location. This exemption shall not apply to permit applications received after January 10, 2000, or sooner if the Executive Officer makes a determination that T-BACT is available to enable compliance with the requirements of paragraphs (d)(1), (d)(2) and (d)(3).

Rule 1401 (g)(1)(H): Gasoline Transfer and Dispensing Facilities (Expired)

For gasoline transfer and dispensing facilities, as defined in Rule 461 – Gasoline Transfer and Dispensing, the Executive Officer shall not, for the purposes of paragraphs (d)(1) through (d)(5), consider the risk contribution of methyl tert-butyl ether for any gasoline transfer and dispensing permit applications deemed complete on or before December 31, 2003. If the state of California extends the phase-out requirement for methyl tert-butyl ether as an oxygenate in gasoline, the limited time exemption shall be extended to that expiration date or December 31, 2004, whichever is sooner.

Rule 1401 (g)(2): Contemporaneous Risk Reduction

Simultaneous risk reduction such that an increase in MICR or HI from a equipment will be mitigated by a risk reduction from another equipment within 100 meters and the net impact on any receptor will be less than or equal to an increased MICR of 1 in 1 million or an HI of 1, provided that both applications for the increase and decrease are deemed complete together, the risk reduction occurs first, and the reduction is enforceable.

APPENDIX VI

**AIR QUALITY DISPERSION MODELING METHODOLOGY
AND METEOROLOGICAL STATIONS/DATA**

Introduction

This appendix discusses the general modeling methodologies used in the development of the screening tables contained in SCAQMD's Risk Assessment Procedures for Rule 1401 and 212 (Version 8.1) and *Attachment N*. Information on the meteorological data used in the analyses and how the data was processed are also included in the discussion below. The meteorological data is available on SCAQMD's website¹ for use in Tier 4 health risk assessments.

Air Quality Dispersion Modeling Methodology

Air quality modeling was performed using the air quality dispersion model AERMOD. As of December 9, 2006, U.S. EPA promulgated AERMOD as a replacement for ISCST3 as the recommended dispersion model. AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain.

Air quality dispersion modeling performed for the development of the screening tables in Attachment N used U.S. EPA's most recent approved version of AERMOD, which is version 16216r. AERMOD was executed using the urban option, which is SCAQMD policy for all permitting in its jurisdiction. The U.S. EPA regulatory non-default option of flat terrain was implemented and the SCAQMD's AERMOD-ready meteorological data was used. The County populations used are based on the 2010 estimates from the U.S. Census Bureau. The Los Angeles County population was 9,818,605; Orange County population was 3,010,232; Riverside County population was 2,189,641; and San Bernardino County population was 2,035,210.

For all modeling performed, a polar receptor grid was utilized with ten degree azimuth increments at the following downwind distances: 25, 50, 75, 100, 200, 300, 500, and 1,000 meters. The peak model-predicted impacts at each downwind distance over the 36 azimuth angles are used to develop the screening risk tables.

For all modeling that included building downwash effects as part of the analysis, the U.S. EPA's Building Profile Input Program for PRIME (BPIP-PRIME) version 04274 was used. BPIP-PRIME calculates downwash values that are used as input for models like AERMOD. The AERMOD modeling system (including all associated processors) is available on the U.S. EPA's website².

For more information regarding the modeling parameters and assumptions used to develop the screening tables for each specific category, please refer to the applicable appendix.

¹ SCAQMD's AERMOD-ready meteorological data is available for download here:

<http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/data-for-aermod>

² U.S. EPA's Support Center for Regulatory Atmospheric Modeling (SCRAM), AERMOD Modeling System.

Available at: <https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models#aermod>

Meteorological Stations

All modeling was performed using SCAQMD's meteorological data processed for AERMOD, as shown in Figure VI-1 below. The locations for each of the 24 stations are given in Table VI-1. It is SCAQMD's policy to continuously update the AERMOD-ready meteorological data every three years; therefore, applicants are advised to check for the most recent version of meteorological data available for use prior to starting any dispersion modeling projects.

The meteorological data used to produce the screening tables in Attachment N was processed with U.S. EPA's AERMET Version 16216. Raw meteorological data from SCAQMD's monitoring stations and the Automated Surface Observing System (ASOS)³ stations were collected for the years of 2010 – 2016. Hourly wind and temperature data were collected from both SCAQMD and ASOS stations, while cloud cover and 1-minute wind data was only available from the ASOS stations. The ASOS 1-minute wind data was processed with U.S. EPA's processor AERMINUTE Version 15272 and included in AERMET for ASOS stations with the use of a wind speed threshold of 0.5 m/s, which is consistent with U.S. EPA's guidelines⁴. The ADJ_U* option was used in AERMET for all stations, as this is now a regulatory option in AERMOD. The ADJ_U* option adjusts the surface friction velocity parameter in the surface file to improve model performance for sources that have peak concentrations under low wind, stable atmospheric conditions⁵.

Surface characteristics, such as albedo, Bowen ratio, and surface roughness, were determined from U.S. EPA's processor AERSURFACE Version 13016. Each station's Bowen ratio varies by year based on the year's precipitation total compared to the 30-year climatological average precipitation. This comparison resulted in a year being classified as Average, Dry, or Wet. For the period of 2010 – 2016, most years fell into the Dry category, with the exception of 2010 and 2016.

After the meteorological data was processed with AERMET, the data went through QA/QC to determine if it passed the U.S. EPA thresholds of less than ten percent missing data by quarter and less than 15 percent calm hours by quarter. The most recent five years of data meeting the QA/QC criteria were then determined for each station, with some stations being eliminated for use in dispersion modeling applications. A number of SCAQMD stations that had been available in the past were determined to no longer be useable for this update, due to not passing the U.S. EPA's QA/QC criteria, or the station being discontinued, or due to having a co-located ASOS station available. Additionally, the ASOS stations within the Basin were included to provide robust coverage for dispersion modeling purposes.

³ The ASOS program is a collaboration between the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). For more information on the ASOS program, please see <http://www.nws.noaa.gov/asos/>.

⁴ See Section 8.4.6 of the U.S. EPA's Appendix W: Guidelines on Air Quality Models. May 22, 2017. https://www3.epa.gov/ttn/scram/appendix_w-2016.htm

⁵ See Section IV.A.2 of the Revisions to the Guideline on Air Quality Models. May 22, 2017. https://www3.epa.gov/ttn/scram/appendix_w-2016.htm

Choosing a Meteorological Station for Modeling

The meteorological station that best represents the facility’s meteorological conditions (such as prevailing winds), terrain, and surrounding land use should be used in all modeling analyses. This means that the closest meteorological station to the facility is not always the most representative meteorologically. The SCAQMD is broken up into 38 source/receptor areas (SRAs) as shown in Figure VI-1. If the prevailing meteorological conditions at the facility are similar to the meteorological station in the facility’s SRA, then the SRA station can be used. All technical justification used in choosing the appropriate meteorological station for dispersion modeling and health risk assessment should be included in the report submitted with the analysis and all electronic modeling files. Please contact SCAQMD modeling staff for questions related to choosing the most appropriate meteorological station for your analysis.

Table VI-1: Locations of SCAQMD’s AERMOD-Ready Meteorological Data and Corresponding Applicable SRA

Station Abbr.	Meteorological Station	Lat./Long. Coordinates		Elevation (m)	Source/Receptor Area (SRA)
		Latitude	Longitude		
AZUS	Azusa	34.1365	-117.9239	182	8, 9, 10
BNAP	Banning	33.9208	-116.8584	660	28, 29
CELA	Central L.A.	34.0664	-118.2267	87	1
ELSI	Lake Elsinore	33.6765	-117.3310	406	25, 26, 27
FONT	Fontana	34.1001	-117.4920	367	34
MSVJ	Mission Viejo	33.6300	-117.6756	170	19, 20, 21
PERI	Perris	33.7889	-117.2278	442	24, 27, 28
PICO	Pico Rivera	34.0103	-118.0686	58	5, 10, 11
RDLA	Redlands	34.0597	-117.1472	481	35, 38
UPLA	Upland	34.1036	-117.6292	379	32, 36
KBUR	Burbank Airport	34.1997	-118.3654	236	7, 8, 15
KCNO	Chino Airport.	33.9756	-117.6249	198	22, 33
KCQT	USC/Downtown L.A.	34.0236	-118.2912	55	1, 12
KFUL	Fullerton Airport	33.8715	-117.9856	29	16, 17
KHHR	Hawthorne Airport	33.9235	-118.3329	19	3, 12
KLAX	Los Angeles Int'l Airport	33.9382	-118.3866	30	3
KLGB	Long Beach Airport	33.8118	-118.1472	10	4, 18
KONT	Ontario Airport	34.0531	-117.5769	289	33
KPSP	Palm Springs Airport	33.8222	-116.5043	125	30, 31
KRAL	Riverside Airport	33.9528	-117.4352	245	22, 23
KSMO	Santa Monica Airport	34.0210	-118.4471	53	2
KSNA	John Wayne Int'l Airport	33.6798	-117.8675	17	17, 18, 20
KTRM	Desert Hot Springs Airport	33.6317	-116.1641	-36	27, 30, 31
KVNY	Van Nuys Airport	34.2123	-118.4915	235	6, 13, 15

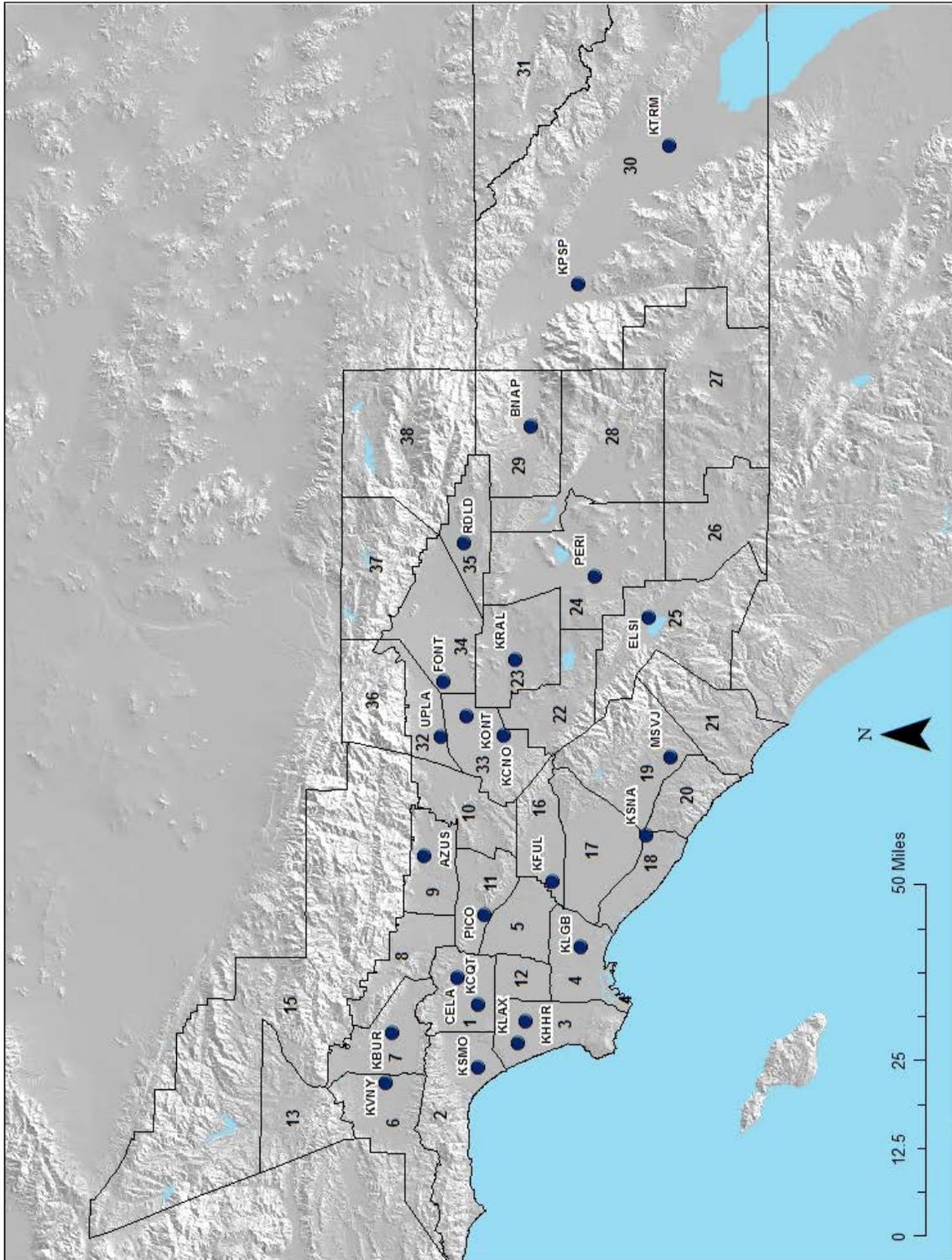


Figure VI-1: Meteorological Monitoring Stations and SRAs in the South Coast Air Basin

APPENDIX VII

METHODOLOGY USED TO DEVELOP TIER 2 SCREENING TABLES FOR NON-COMBUSTION SOURCES

Introduction

The purpose of this appendix is to document the methods used by SCAQMD staff to estimate cancer risks from non-combustion sources. The methods are consistent with SCAQMD's risk assessment procedures for Rule 1401 and were used to update the Rule 1401 Tier 2 screening tables using AERMOD.

Emission Inventory Methods

In order to determine the appropriate emission rates to use, please contact the appropriate SCAQMD Engineering and Permitting staff (<http://www.aqmd.gov/contact/permitting-staff>) for more information.

Modeling Parameters

For the general dispersion modeling methodology and meteorological stations used in the development of the screening tables, please see Appendix VI.

The non-combustion sources were modeled as either a point source or volume source. The point source was modeled as a stack using a constant ambient temperature at the release point (0 K in AERMOD), a 0.3 meter stack diameter and 10 m/s exit velocity with varying release heights. Consistent with the modeling prepared for SCAQMD's Risk Assessment Procedures (Version 8.0), building downwash effects were analyzed for point sources with a 20 meter by 30 meter building, 4 meters high. Table VII-1 shows the parameters used to model the point sources while Table VII-2 shows the parameters used for the volume sources. The source IDs are used to differentiate between the different parameters for each source configuration.

Table VII-1: Model Parameters for Point Sources

Source ID	Stack Height		Stack Diameter		Stack Temperature		Stack Velocity		Flowrate
	(ft)	(m)	(in)	(m)	(°F)	(K)	(ft/s)	(m/s)	(ft ³ /min)
P1	14	4.27	12	0.30	Ambient	0*	32.81	10	1,546.1
P2	25	7.62	12	0.30	Ambient	0*	32.81	10	1,546.1
P3	50	15.24	12	0.30	Ambient	0*	32.81	10	1,546.1

Note: * The temperature used in AERMOD was set to 0 K, which indicates that the ambient temperature was used in the model run.

Table VII-2: Model Parameters for Volume Sources

Source ID	Release Height		Lateral Dimension		Vertical Dimension		σ_y	σ_z
	(ft)	(m)	(ft)	(m)	(ft)	(m)	(m)	(m)
V1	7.50	2.29	38.73	11.80	15.00	4.57	2.75	2.13
V2	7.50	2.29	70.71	21.55	15.00	4.57	5.01	2.13
V3	15.00	4.57	70.71	21.55	30.00	9.14	5.01	4.25
V4	7.50	2.29	122.47	37.33	15.00	4.57	8.68	2.13
V5	15.00	4.57	122.47	37.33	30.00	9.14	8.68	4.25
V6	15.00	4.57	212.13	64.66	30.00	9.14	15.04	4.25

A sample AERMOD model input file is provided in Appendix XIII, Exhibit VII.

APPENDIX VIII

METHODOLOGY USED TO DEVELOP TIER 2 SCREENING TABLES FOR COMBUSTION SOURCES (NATURAL GAS BOILERS, NATURAL GAS INTERNAL COMBUSTION ENGINES, DIESEL INTERNAL COMBUSTION ENGINES)

Introduction

The purpose of this appendix is to document the methods used by SCAQMD staff to estimate cancer risks from natural gas-fueled boilers, natural gas-fueled internal combustion engines (ICEs), and diesel-fueled ICEs. The methods are consistent with SCAQMD's risk assessment procedures for Rule 1401 and were used to update the Rule 1401 Tier 2 screening tables using AERMOD.

Emission Inventory Methods

In order to determine the appropriate/default emission rates to use for fuel combustion sources, please refer to "Supplemental Instructions, Reporting Procedures for AB2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory, Annual Emissions Reporting Program" (<http://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/supplemental-instructions-for-ab2588-facilities.pdf>) for more information.

Modeling Parameters

For the general dispersion modeling methodology and meteorological stations used in the development of the screening tables, please see Appendix VI.

Combustion source stacks were modeled as a point source with the stack parameters presented in Table VIII-1. These parameters were based on the San Joaquin Valley Unified Air Pollution Control District's modeling parameters for combustion sources²². Consistent with the modeling prepared for SCAQMD's Risk Assessment Procedures for Rule 1401, building downwash effects were analyzed with a 20 meter by 30 meter building, 4 meters high.

²² San Joaquin Valley Unified Air Pollution Control District, Final Draft Staff Report with Appendices for Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document, found at <https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf>, accessed on June 15, 2017

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Table VIII-1: Model Parameters for Combustion Sources

Source ID	Release Height		Stack Diameter		Stack Temperature		Stack Velocity		Flowrate
	(ft)	(m)	(in)	(m)	(°F)	(K)	(ft/s)	(m/s)	(ft ³ /min)
B1	29.53	9	1.46	0.4	332.3	440	16.40	5	11.5
B2	29.53	9	1.83	0.5	386.3	470	22.97	7	25.1
B3	29.53	9	2.01	0.55	386.3	470	29.53	9	39.1
B4	32.81	10	2.45	0.67	386.3	470	32.81	10	64.5
B5	32.81	10	2.63	0.72	431.3	495	39.37	12	89.4
B6	45.93	14	4.02	1.1	332.3	440	32.81	10	173.8
B7	52.49	16	5.49	1.5	314.3	430	39.37	12	387.8
N1	13.12	4	0.26	0.07	1070.3	850	131.23	40	2.8
N2	13.12	4	0.29	0.08	1070.3	850	213.25	65	6.0
N3	13.12	4	0.51	0.14	1142.3	890	180.45	55	15.5
N4	16.40	5	0.69	0.19	1016.3	820	196.85	60	31.1
N5	22.97	7	1.28	0.35	890.3	750	213.25	65	114.4
D1	9.84	3	0.33	0.09	908.3	760	213.25	65	7.6
D2	9.84	3	0.44	0.12	908.3	760	180.45	55	11.4
D3	9.84	3	0.48	0.13	908.3	760	262.47	80	19.4
D4	9.84	3	0.55	0.15	926.3	770	295.28	90	29.1
D5	13.12	4	0.62	0.17	980.3	800	524.93	160	66.4

A sample AERMOD model input file is provided in Appendix XIII, Exhibit VIII.

APPENDIX IX

**METHODOLOGY USED TO DEVELOP TIER 2 SCREENING TABLES
FOR CREMATORIUMS**

Introduction

The purpose of this report is to document the methods used by SCAQMD staff to estimate cancer risks from the industry-wide source category of crematoriums. The methods are consistent with SCAQMD's risk assessment procedures for Rule 1401 and were used to update the Rule 1401 Tier 2 screening tables using AERMOD for crematoriums ONLY.

Emission Inventory Methods

For emission rates associated with crematoriums, please contact the appropriate SCAQMD Engineering and Permitting staff (<http://www.aqmd.gov/contact/permitting-staff>).

Modeling Parameters

For the general dispersion modeling methodology and meteorological stations used in the development of the screening tables, please see Appendix VI.

Based on information from SCAQMD Engineering and Permitting staff, the model parameters for a standard crematorium is a 13 foot building with a single stack located six feet above the roof of the building. The stack was modeled as a point source with the following stack parameters – 19 feet stack height, 19.03 ft/s exit velocity, 1300°F exit temperature. Due to the sensitivity to building downwash effects, there are three different square building sizes analyzed: 5,000, 10,000, and 15,000 ft².

Table IX-1: Model Parameters for Crematories

Source ID*	Release Height		Stack Diameter		Stack Temperature		Stack Velocity		Flowrate
	(ft)	(m)	(in)	(m)	(°F)	(K)	(ft/s)	(m/s)	(ft ³ /min)
P1, P2, P3	19	5.79	20	0.508	1,300	977.59	19	5.8	2,490.9

*Same point source model parameters with three separate building sizes to account for differing building downwash effects.

A sample AERMOD model input file is provided in Appendix XIII, Exhibit IX.

APPENDIX X

**METHODOLOGY USED TO DEVELOP TIER 2 SCREENING TABLES
FOR GASOLINE TRANSFER AND DISPENSING FACILITIES**

Introduction

The purpose of this appendix is to document the methods used by SCAQMD staff to estimate cancer risks from retail gasoline dispensing facilities. The methods are consistent with SCAQMD's Risk Assessment Procedures (Version 8.1), which incorporates the 2015 OEHHA Guidelines. The methods used to estimate emissions, pollutant concentrations, and cancer risks are discussed here. Screening tables of maximum cancer risks at various locations in the Basin and at various residential and occupational distances are provided in Attachment N. This appendix concludes with an example calculation using the cancer risk tables.

Emission Inventory Methods

Rule 461 – Gasoline Transfer and Dispensing currently has annual throughput reporting requirements. It is designed to regulate gasoline vapor emissions from gasoline transfer and dispensing processes which contain volatile organic compounds and TACs such as benzene, ethylbenzene, toluene, xylenes, and naphthalene. The rule was initially adopted in 1976 and has been amended a number of times, most recently on March 7, 2008. Therefore, risk from these facilities can be calculated from the available information.

Emissions from gasoline transfer and dispensing mainly occur during loading, breathing, refueling, spillage, and hose permeation as described below:

Loading – Emissions occur when a fuel tanker truck unloads gasoline to the storage tanks. The storage tank vapors, displaced during loading, are emitted through its vent pipe. A pressure/vacuum valve installed on the tank vent pipe significantly reduces these emissions.

Breathing – Emissions occur through the storage tank vent pipe as a result of temperature and pressure changes in the tank vapor space.

Refueling – Emissions occur during motor vehicle refueling when gasoline vapors escape either through the vehicle/nozzle interface or the on-board vapor recovery (ORVR) system.

Spillage – Emissions occur from evaporating gasoline that spills during vehicle refueling.

Hose Permeation – Emissions occur when liquid gasoline or gasoline vapors diffuse through the dispensing hose outer surface to the atmosphere.

All retail service stations under SCAQMD jurisdiction have Phase I and II vapor recovery systems to control gasoline emissions. Phase I vapor recovery refers to the collection of gasoline vapors displaced from storage tanks when cargo tank trucks make gasoline deliveries. Phase II vapor recovery systems control the vapors displaced from the vehicle fuel tanks during refueling. In addition, all gasoline is stored underground with valves installed on the tank vent pipes to further control gasoline emissions. Out of the TACs emitted from the gasoline stations, only benzene, ethylbenzene, and naphthalene have cancer toxicity values.

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The emission factors for each of the five processes are summarized in Table X-1. The factors given in the table follow CARB’s 2013 Revised Controlled Gasoline Emission Factors except for Phase II Onboard Refueling Vapor Recovery (ORVR). SCAQMD staff has been in communication with CARB staff regarding the refueling emissions factor. Both agencies agree that additional time is needed to better understand emission reductions from Phase II EVR for ORVR vehicles. SCAQMD staff is recommending not to incorporate CARB’s 2013 revised emission factor for Phase II refueling of ORVR vehicles, but to continue the use of SCAQMD’s current emission factor of 0.32 lbs per 1,000 gallons for refueling. Staff is recommending the use of CARB’s 2013 emission factors for all other categories (loading, breathing, spillage, and hose permeation). The SCAQMD staff is committed to continue working with CARB staff to refine the refueling emission estimates for Phase II controls with ORVR vehicles and will return to the Board with future revisions to refueling emission factors. It is important to note that for purposes of modeling, Phase II emissions are broken up into refueling and breathing for dispersion modeling purposes.

Table X-1. Gasoline Emission Factors for Retail Service Stations Process		Loading	Breathing	Refueling	Hose Permeation	Spillage
Controlled Gasoline EF (lbs/1,000 gal)		0.15	0.024	0.32	0.009	0.24
Benzene	Weight Percent	0.455%	0.455%	0.455%	0.455%	0.707%
	Emission Factor (lbs/1,000 gal)	0.000683	0.000109	0.00146	0.000041	0.0017
Ethylbenzene	Weight Percent	0.107%	0.107%	0.107%	0.107%	1.29%
	Emission Factor (lbs/1,000 gal)	0.000161	0.0000257	0.000342	0.00000963	0.0031
Naphthalene	Weight Percent	0.0004%	0.0004%	0.0004%	0.0004%	0.174%
	Emission Factor (lbs/1,000 gal)	0.0000006	0.000000096	0.00000128	0.000000036	0.000418

Note: *The weight percentages of the TACs evaluated for cancer risk are based on a weighted summer (214 days per year) and winter (151 days per year) gasoline speciation.

*Gasoline speciation profile: <https://www.arb.ca.gov/ei/speciate/refspec.htm>

*Actual modeling emission factors may vary due to rounding.

Modeling Parameters

For the general dispersion modeling methodology and meteorological stations used in the development of the screening tables, please see Appendix VI.

Emissions from gasoline service stations are non-buoyant and ground-based (or nearly ground-based). In addition, the peak impacts from this type of facility occur in close proximity to the source. Under these circumstances the local terrain is relatively unimportant; therefore flat terrain is assumed in the dispersion modeling.

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The California Air Pollution Control Officers Association (CAPCOA) has developed industry-wide risk assessment guidelines for gasoline service stations²³ (1997 CAPCOA Guidelines) and has started the process to update these guidelines using the 2015 OEHHA Guidelines and SCAQMD staff is participating in that Working Group. The current industry-wide risk assessment guidance was approved in 1997. These risk assessment guidelines were developed to promote consistency throughout the State. However, CAPCOA recognized that many of the districts in the state have developed modeling methods and procedures unique to their situations. To address these differences among districts, CAPCOA allows for a district to deviate from the published guidelines as evidenced by the following statement in the industry-wide risk assessment guidelines for gas stations²³:

This effort was initiated to provide a cost effective and uniform method for calculating gasoline station emission inventories and risk assessment for the thousands of gasoline stations throughout the State. However, districts may use other emission information and modeling procedures appropriate in their district.

The modeling performed here follows the 1997 CAPCOA Guidelines unless otherwise noted.

Loading and breathing emissions exit the underground storage tank vent pipe and are thus treated as a point source. The height and diameter of the vent are assumed to be 3.66 meters (12 feet) and 0.05 meters (2 inches), respectively.

Refueling, spillage, and hose permeation emissions are modeled as volume sources with horizontal dimensions of 13 meters by 13 meters to correspond to the dimensions of the pump islands and a vertical dimension of 5 meters to correspond to the height of the canopy. For refueling and hose permeation, the release height is assumed to be 1 meter to approximate the height of a vehicle fuel tank inlet, whereas spillage emissions are assumed to be released at ground level since nearly all the gasoline from spillage reaches the ground. These dimensions match the 1997 CAPCOA Guidelines recommendations except for the vertical dimension of the volume source; CAPCOA recommends 4 meters. The SCAQMD has been requiring gas station risk assessments for permitting since early 1990s using a vertical dimension of the volume source corresponding to the pump island canopy top. Assuming a 5-meter vertical dimension continues this modeling practice.

According to the 1997 CAPCOA Guidelines, the effects of building downwash on the calculated cancer risk were determined by using three different scenarios with a 10 meter long by 5 meter wide, by 4 meter high building. The building downwash algorithms only affect point sources and do not affect volume or area sources. Results of the modeling indicated that the placement of the buildings and their subsequent potential to create downwash have very little effect on the resultant risks from the vent pipes. Thus, CAPCOA concluded that it is not necessary to include building downwash when determining the dispersion from the vent pipes when using ISCST3. In order to determine the effects of building downwash using AERMOD, a similar analysis was conducted by SCAQMD staff with the same building dimensions using the BPIP-PRIME computer program. The modeling results showed that building downwash caused the maximum ground level

¹⁰ The 1997 CAPCOA AB2588 Gasoline Service Station Industrywide Risk Assessment Guidelines are available on the internet at: <https://www.arb.ca.gov/ab2588/rtrap-iwra/GasIWRA.pdf>

concentrations to more than double. Therefore, building downwash has a significant effect on the maximum concentrations and subsequent cancer risk and thus, cannot be ignored.

The vent pipe, volume sources, and building are assumed to be located at the center of the service station property. Ideally, the locations of the vent pipes, pump islands, and buildings would be determined on a site by site basis. Unfortunately, that level of detail is not feasible for the development of screening tables due to the large number of facilities.

It is assumed that the gas station described above operates continuously throughout the year. Further, it is assumed that 80 percent of the daily emissions occur equally each hour from 6:00 a.m. to 8:00 p.m. and the remaining 20 percent of the daily emissions occur equally each hour from 8:00 p.m. to 6:00 a.m.

A sample AERMOD model input file for the generic retail service station described above is included in Appendix XIII, Exhibit X.

The peak model-predicted impacts at each downwind distance over the 36 azimuth angles are used to develop the screening cancer risk tables for gasoline service stations (see Attachment N, Tables 12.1A – 12.2B).

Cancer Risk Screening Tables

Based on a review of the 16 TACs emitted from gasoline, only three (benzene, ethylbenzene, and naphthalene) result in cancer effects and were analyzed for cancer risk. Cancer risk screening tables were developed for a generic retail gasoline service station. The modeled stations are assumed to have Phase I and II vapor recovery with cancer risk calculated for different locations; see Table X-1 for the control efficiencies and emission factors assumed for the modeling.

The following paragraphs describe how the cancer risks from a typical gasoline service station can be estimated from the screening tables as follows: First, determine which of the 24 meteorological site locations in these tables best represents the facility's meteorological conditions and location. The SCAQMD is broken up into 38 source/receptor areas (SRAs) as shown in Appendix VI, Figure VI-1. As shown in Appendix VI, Table VI-1, each of the 24 meteorological sites is assigned to the appropriate SRAs, which can then be used to choose the corresponding meteorological site for each gasoline dispensing facility.

Next, determine the distance from the service station to the nearest residential and off-site worker location. Tables 12.1 A – 12.2 B in Attachment N provide the maximum cancer risks for a gasoline dispensing station with either underground or aboveground storage tanks with a one million gallons per year throughput at various residential and off-site worker distances, respectively. Using the data from these tables and steps described above, determine the applicable cancer risks.

Lastly, multiply the cancer risks by the requested annual gasoline throughput of the service station. An example of a risk calculation is provided for a hypothetical gasoline service station on page X-8.

Results

Figure X-1 shows the TAC species apportionment in gasoline and Figure X-2 shows the source apportionment of the calculated cancer risks for underground storage tanks. Using the results from the Ontario Airport meteorological station and at a downwind distance of 25 meters, emissions from spillage account for 48.5 percent of the cancer risk, while benzene is the air toxics which drives the cancer risk, accounting for 84 percent. This is consistent with the discussion of the relative toxicity of substances in gasoline found in Appendix I of the 1997 CAPCOA Guidelines, which shows that benzene is the most important TAC driving the cancer risks at gasoline service stations.

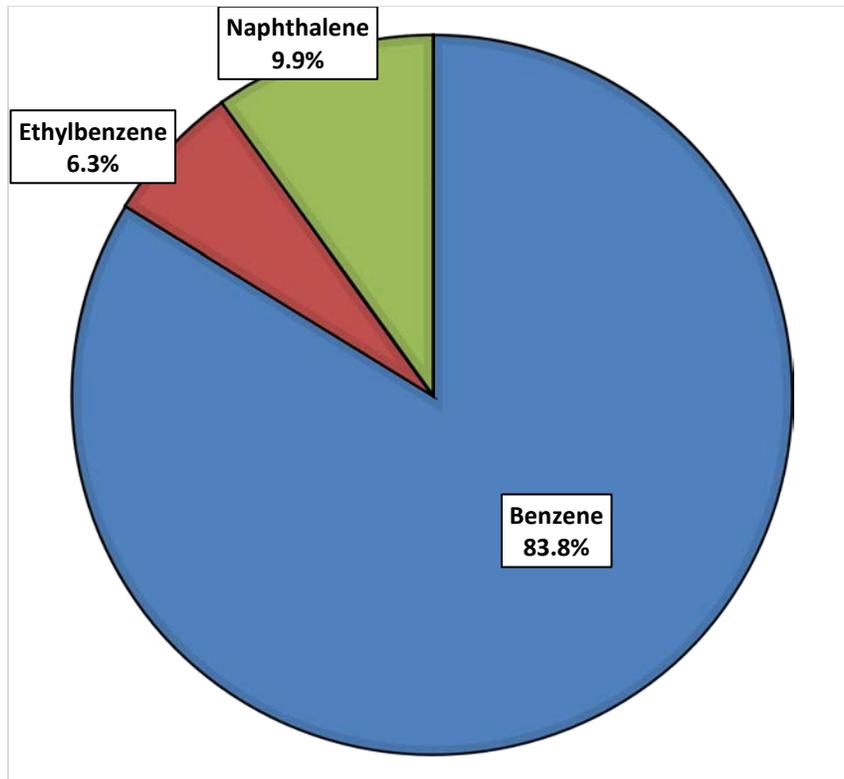


Figure X-1: Cancer Risk by Toxic Compound

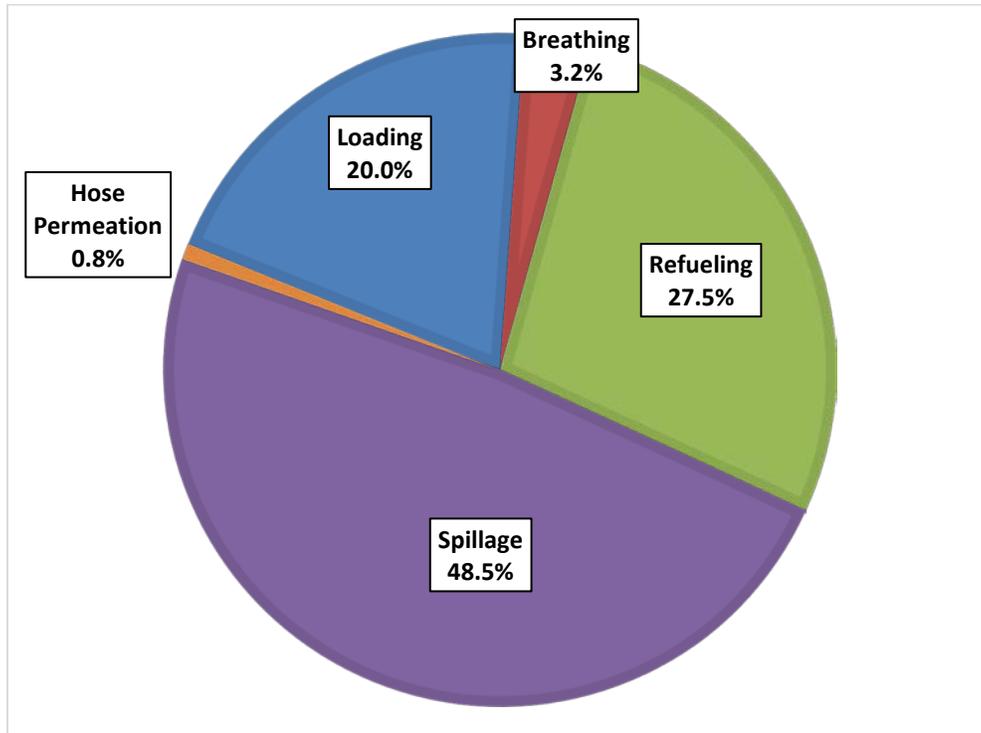


Figure X-2: Cancer Risk by Source

Sensitivity Analysis Regarding Non-Cancer Risks

A sensitivity analysis examining the chronic and acute non-cancer risks was prepared using CARB’s speciation profile of 16 TACs in gasoline, the Ontario International Airport meteorological station, a receptor distance of 25 meters, and a throughput of one million gallons per year. The TACs included in CARB’s speciation profile are n-butyl alcohol, benzene, isoprene, naphthalene, 2-methyl naphthalene, o-xylene, 1,2,4-trimethylbenzene, cumene, ethylbenzene, p-xylene, m-xylene, toluene, hexane, cyclohexane, propylene, and 2,2,4-trimethylpentane. As seen in Table X-2, the sensitivity analysis calculated the Hazard Index (HI) for each of the 16 TACs, which was then summed, regardless of target organ.

Table X-2: Sensitivity Analysis Results for Non-Cancer Risks

TACs	Chronic HI	Acute HI
Benzene	0.01996	0.02967
Ethylbenzene	0.000025909	0
Naphthalene	0.000654	0
Toluene	0.000925	0.000102
m-Xylene	0.0001846	0.00008009
o-Xylene	0.0001013	0.00004398
p-Xylene	0.0000774	0.00003357
Hexane	0.00002951	0
Propylene	0.0000000398	0
1,2,4-trimethylbenzene	0	0
2,2,4-trimethylpentane	0	0
2-methyl naphthalene	0	0
Cumene	0	0
Cyclohexane	0	0
Isoprene	0	0
n-Butyl Alcohol	0	0
Max Chronic HI	0.01996	0.02967
Million Gallons of Throughput to reach HI = 1.0	50.09	33.7

The results of the sensitivity analysis show that benzene is the driver for both the chronic and acute hazard indices, with risks from benzene being two orders of magnitude higher than the next highest TAC. Using CARB’s speciation profile, seven of the 16 TACs did not have RELs associated with them. The maximum chronic HI was 0.02 and the maximum acute HI was 0.03 at a throughput of one million gallons of gasoline per year. The results demonstrate that for the maximum permitted risk of ten in a million, the acute and chronic HI are much lower (< 0.1) than the threshold of 1.0. Therefore, the chronic and acute non-cancer health effects do not need to be calculated, which is consistent with the 1997 CAPCOA Guidelines.

Example Calculation

The following example demonstrates how SCAQMD staff plans to estimate cancer risk values for retail gasoline dispensing facilities based on information received and using Attachment N, Tables 12.1 A – 12.2 B.

The calculation steps are as follows:

1. **Cancer Risk (CR):** Cancer risk values are estimated for each retail gasoline dispensing facility based on facility location, process information, and receptor proximity.
 - a. *Residential CR:* Use the facility location and the distance to the nearest resident to identify the risk. The residential CRs for retail gasoline dispensing are contained in Attachment N, Tables 12.1A and 12.2A.
 - b. *Off-Site Worker CR:* Use the facility location and the distance to the nearest worker to identify the risk. The off-site worker CRs for retail gasoline dispensing are contained in Table 12.1B and 12.2B.
 - c. *Maximum Individual CR (MICR):* Select the greater CR between the residential and occupational CRs (as identified above).

Please note the following when calculating risk values for gasoline dispensing facilities:

- The gasoline dispensing risk tables (Attachment N, Tables 12.1 A – 12.2 B) are based on a gasoline throughput of one million (MM) gallons per year (gal/yr). The annual facility throughput should be multiplied by the values contained in the gasoline dispensing risk tables to calculate the appropriate facility risk.
- The SCAQMD maintains 24 meteorological stations that are processed for modeling purposes, as shown in Appendix VI, Figure VI-1 and Appendix VI, Table VI-1. The meteorological station that best represents the facility's meteorological conditions (such as prevailing winds), terrain, and surrounding land use should be used. This means that the closest meteorological station to the facility is not always the most representative meteorologically.
- The gasoline dispensing risk tables (Attachment N, Tables 12.1 A – 12.2 B) are based on discrete downwind distances. If the actual downwind distance is not listed in the tables, then linear interpolation between distance cells is acceptable.
- Although gasoline vapors and its TAC constituents (for example, benzene, toluene, and xylene) have non-cancer impacts, **the risks from retail gasoline dispensing facilities are dominated by cancer risk.** Therefore, the hazard index will not be calculated for inclusion in the gasoline dispensing risk tables.

Example: A retail gasoline dispensing facility with an underground storage tank submits the following information with their application: 15 MM gal/yr gasoline requested throughput, located in Yorba Linda, nearest residential receptor 200 meters away, and nearest off-site worker receptor 25 meters away.

In this example, the actual downwind distances match the distances found in the tables. However, when the actual downwind distances are not in the tables, then using linear interpolation to calculate between the distance cells is acceptable to obtain cancer risks for the actual downwind distances.

2. Cancer Risk (CR):

- a. Residential CR: According to Appendix VI, Table VI-1, Yorba Linda is located in SRA 16 and the appropriate meteorological station is in Fullerton (KFUL). Using Attachment N, Table 12.1 A for the Fullerton meteorological station, the residential cancer risk is 0.104 in one million (200 meters) for 1 MM gal/yr. Since the facility's requested gasoline throughput for this example is 15 MM gal/yr, the corresponding residential cancer risk is 1.56 in one million.

$$\text{Residential CR} = \frac{0.104 \text{ in one million}}{(1 \text{ MM gal/yr})} \times 15 \text{ MM gal/yr}$$

Residential CR = 1.56 in one million

- b. Worker CR: According to Appendix VI, Table VI-1, Yorba Linda is located in SRA 16 and the appropriate meteorological station is in Fullerton (KFUL). Using Attachment N, Table 12.1 B, the occupational cancer risk is 0.225 in one million (25 meters) for 1 MM gal/yr. Since the facility's gasoline throughput for this example is 15 MM gal/yr, the corresponding occupational cancer risk is 3.38 in one million.

$$\text{Occupational CR} = \frac{0.225 \text{ in one million}}{(1 \text{ MM gal/yr})} \times 15 \text{ MM gal/yr}$$

Occupational CR = 3.38 in one million
--

- c. MICR: The MICR for this retail gasoline facility is **3.38** in one million (occupational receptor).

APPENDIX XI

**METHODOLOGY USED TO DEVELOP TIER 2 SCREENING TABLES
FOR SPRAY BOOTHS**

Introduction

The purpose of this appendix is to document the methods used by SCAQMD staff to develop the screening tables for spray booths. The methods are consistent with SCAQMD's risk assessment procedures for Rule 1401 and were used to update the Rule 1401 Tier 2 screening tables using AERMOD.

Emission Inventory Methods

In order to determine the appropriate emission rates to use, please contact the appropriate SCAQMD Engineering and Permitting staff (<http://www.aqmd.gov/contact/permitting-staff>) for more information.

Modeling Parameters

For the general dispersion modeling methodology and meteorological stations used in the development of the screening tables, please see Appendix VI.

Based on information from SCAQMD Engineering and Permitting staff, the model parameters were developed for two typical spray booth configurations, each with a single stack vent located 6 feet above the roof of a building. Each spray booth was modeled as a point source using the parameters shown in Table XI-1. Building downwash effects were analyzed, with a building size of 20 meters by 70 meters and a building height of 6 feet below each stack height.

Table XI-1: Model Parameters for Spray Booths

Source ID	Stack Height		Stack Diameter		Stack Temperature		Stack Velocity		Flowrate
	(ft)	(m)	(ft)	(m)	(°F)	(K)	(ft/s)	(m/s)	(ft ³ /min)
P1	16	4.88	2.83	0.864	Ambient	0*	26.43	8.05	10,000
P2	24	7.32	2.83	0.864	Ambient	0*	26.43	8.05	10,000

Note: * The temperature used in AERMOD was set to 0 K, which indicates that the ambient temperature was used in the model run.

A sample AERMOD model input file is provided in Appendix XIII, Exhibit XI.

APPENDIX XII

**METHODOLOGY USED TO DEVELOP TIER 2 SCREENING TABLES
FOR SHORT-TERM PROJECTS**

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

Introduction

When performing a Tier 2 analysis for short-term projects (such as portable equipment, air pollution control equipment used for soil remediation projects, etc), the combined exposure factor and appropriate multi-pathway factor needs to be determined based on the duration of the project.

When conducting a Tier 2 analysis for short-term projects, you may also use the following equation using a **default exposure value (CEF)**:

$$\text{MICR}_{(R,ST)} = \text{CP} \times \text{Q}_{\text{tpy}} \times \chi/\text{Q} \times \text{CEF}_{(R,ST)} \times \text{MP}_{(R,ST)} \times 10^{-6} \times \text{MWF}$$

$$\text{MICR}_{(W,ST)} = \text{CP} \times \text{Q}_{\text{tpy}} \times \chi/\text{Q} \times \text{CEF}_{(W,ST)} \times \text{MP}_{(W,ST)} \times \text{WAF} \times 10^{-6} \times \text{MWF}$$

Term	Description	Where to Find
Q _{tpy}	Maximum emission rate (tons/yr)	Emission estimate specific to permit unit
χ/Q	Concentration at a receptor distance / Emission Rate [(μg/m ³)/(tons/yr)]	Attachment N, Tables 6.1 A – 7.6 B
MWAF	Molecular Weight Adjustment Factor	Consolidated Health Values Table found at https://www.arb.ca.gov/toxics/healthval/contable.pdf
CP	Cancer Potency (mg/kg-day) ⁻¹	
MP	Multi-Pathway Adjustment Factor (if applicable)	Attachment N, Table 3.1
CEF	Combined Exposure Factor	Attachment N, Tables 4.1 A – 4.2 D
WAF	Worker Adjustment Factor	Attachment N, Tables 5.1 and 5.2
10 ⁻⁶	Micrograms to milligrams conversion, liters to cubic meters conversion	not applicable

Please note that SCAQMD Engineering and Permitting staff (<http://www.aqmd.gov/contact/permitting-staff>) should be consulted prior to the use of these exposure factors to determine if these factors are appropriate for the air quality permit application. Permit conditions limiting the duration of the use of equipment consistent with the analysis will be imposed, and information regarding the project duration will need to be well documented for the short-term projects.

Since these short-term calculations are only meant for projects with limits on the operating duration, these short-term cancer risk assessments can be thought of as being the equivalent to a 30-year cancer risk estimate and the appropriate thresholds would still apply (i.e. for a 5-year project, the maximum emissions during the 5-year period would be assessed on the more sensitive

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

population, from the third trimester to age 5, after which the project's emissions would drop to 0 for the remaining 25 years to get the 30-year equivalent cancer risk estimate).

APPENDIX XIII

**AERMOD INPUT FILES USED TO DEVELOP
TIER 2 SCREENING TABLES**

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

Exhibit VII - Sample AERMOD Input Files for Non-Combustion Sources

Non-Combustion Point Sources (P1, P2, P3)

```

CO STARTING
TITLEONE R1401 Risk Assessment Procedures
TITLETWO Continuous Operation
MODELOPT CONC FLAT
AVERTIME 1 PERIOD
POLLUTID Any
RUNORNOT RUN
URBANOPT 9818605 LA
CO FINISHED
SO STARTING
LOCATION P1 POINT 0.0 0.0 0.0
LOCATION P2 POINT 0.0 0.0 0.0
LOCATION P3 POINT 0.0 0.0 0.0
SRCPARAM P1 2.88E-02 4.27 0 10.0 0.3
SRCPARAM P2 2.88E-02 7.62 0 10.0 0.3
SRCPARAM P3 2.88E-02 15.24 0 10.0 0.3
SO BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
SO BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
SO BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
SO BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
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SO BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
SO BUILDWID P1 24.91 29.05 32.32 34.60 35.84 35.98
SO BUILDWID P1 35.03 33.02 30.00 33.02 35.03 35.98
SO BUILDWID P1 35.84 34.60 32.32 29.05 24.91 20.00
SO BUILDWID P1 24.91 29.05 32.32 34.60 35.84 35.98
SO BUILDWID P1 35.03 33.02 30.00 33.02 35.03 35.98
SO BUILDWID P1 35.84 34.60 32.32 29.05 24.91 20.00
SO BUILDLEN P1 33.02 35.03 35.98 35.84 34.60 32.32
SO BUILDLEN P1 29.05 24.91 20.00 24.91 29.05 32.32
SO BUILDLEN P1 34.60 35.84 35.98 35.03 33.02 30.00
SO BUILDLEN P1 33.02 35.03 35.98 35.84 34.60 32.32
SO BUILDLEN P1 29.05 24.91 20.00 24.91 29.05 32.32
SO BUILDLEN P1 34.60 35.84 35.98 35.03 33.02 30.00
SO XBADJ P1 -16.51 -17.52 -17.99 -17.92 -17.30 -16.16
SO XBADJ P1 -14.53 -12.45 -10.00 -12.45 -14.53 -16.16
SO XBADJ P1 -17.30 -17.92 -17.99 -17.52 -16.51 -15.00
SO XBADJ P1 -16.51 -17.52 -17.99 -17.92 -17.30 -16.16
SO XBADJ P1 -14.53 -12.45 -10.00 -12.45 -14.53 -16.16
SO XBADJ P1 -17.30 -17.92 -17.99 -17.52 -16.51 -15.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO BUILDHGT P2 4.00 4.00 4.00 4.00 4.00 4.00
SO BUILDHGT P2 4.00 4.00 4.00 4.00 4.00 4.00
SO BUILDHGT P2 4.00 4.00 4.00 4.00 4.00 4.00
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SO BUILDHGT P2 4.00 4.00 4.00 4.00 4.00 4.00
SO BUILDWID P2 24.91 29.05 32.32 34.60 35.84 35.98
SO BUILDWID P2 35.03 33.02 30.00 33.02 35.03 35.98
SO BUILDWID P2 35.84 34.60 32.32 29.05 24.91 20.00
SO BUILDWID P2 24.91 29.05 32.32 34.60 35.84 35.98
SO BUILDWID P2 35.03 33.02 30.00 33.02 35.03 35.98
SO BUILDWID P2 35.84 34.60 32.32 29.05 24.91 20.00
SO BUILDLEN P2 33.02 35.03 35.98 35.84 34.60 32.32
SO BUILDLEN P2 29.05 24.91 20.00 24.91 29.05 32.32
SO BUILDLEN P2 34.60 35.84 35.98 35.03 33.02 30.00
SO BUILDLEN P2 33.02 35.03 35.98 35.84 34.60 32.32
SO BUILDLEN P2 29.05 24.91 20.00 24.91 29.05 32.32
SO BUILDLEN P2 34.60 35.84 35.98 35.03 33.02 30.00
SO XBADJ P2 -16.51 -17.52 -17.99 -17.92 -17.30 -16.16
SO XBADJ P2 -14.53 -12.45 -10.00 -12.45 -14.53 -16.16
SO XBADJ P2 -17.30 -17.92 -17.99 -17.52 -16.51 -15.00
SO XBADJ P2 -16.51 -17.52 -17.99 -17.92 -17.30 -16.16
SO XBADJ P2 -14.53 -12.45 -10.00 -12.45 -14.53 -16.16
SO XBADJ P2 -17.30 -17.92 -17.99 -17.52 -16.51 -15.00
SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00

```

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
 SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
 SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
 SO BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
 SO BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
 SO BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
 SO BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
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 SO BUILDWID P3 35.03 33.02 30.00 33.02 35.03 35.98
 SO BUILDWID P3 35.84 34.60 32.32 29.05 24.91 20.00
 SO BUILDWID P3 24.91 29.05 32.32 34.60 35.84 35.98
 SO BUILDWID P3 35.03 33.02 30.00 33.02 35.03 35.98
 SO BUILDWID P3 35.84 34.60 32.32 29.05 24.91 20.00
 SO BUILDLN P3 33.02 35.03 35.98 35.84 34.60 32.32
 SO BUILDLN P3 29.05 24.91 20.00 24.91 29.05 32.32
 SO BUILDLN P3 34.60 35.84 35.98 35.03 33.02 30.00
 SO BUILDLN P3 33.02 35.03 35.98 35.84 34.60 32.32
 SO BUILDLN P3 29.05 24.91 20.00 24.91 29.05 32.32
 SO BUILDLN P3 34.60 35.84 35.98 35.03 33.02 30.00
 SO XBADJ P3 -16.51 -17.52 -17.99 -17.92 -17.30 -16.16
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 SO XBADJ P3 -17.30 -17.92 -17.99 -17.52 -16.51 -15.00
 SO XBADJ P3 -16.51 -17.52 -17.99 -17.92 -17.30 -16.16
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 SO XBADJ P3 -17.30 -17.92 -17.99 -17.52 -16.51 -15.00
 SO YBADJ P3 0.00 0.00 0.00 0.00 0.00 0.00
 SO YBADJ P3 0.00 0.00 0.00 0.00 0.00 0.00
 SO YBADJ P3 0.00 0.00 0.00 0.00 0.00 0.00
 SO YBADJ P3 0.00 0.00 0.00 0.00 0.00 0.00
 SO YBADJ P3 0.00 0.00 0.00 0.00 0.00 0.00

URBANSRC P1
 URBANSRC P2
 URBANSRC P3
 SRCGROUP P1 P1
 SRCGROUP P2 P2
 SRCGROUP P3 P3
 SO SRCGROUP ALL

SO FINISHED
 RE STARTING
 GRIDPOLR POL1 STA
 ORIG 0.0 0.0
 DIST 25 50 75 100 200 300 500 1000
 GDIR 36 10.0 10.0
 GRIDPOLR POL1 END

RE FINISHED
 ME STARTING
 SURFFILE AZUS_v9.SFC
 PROFFILE AZUS_v9.PFL
 SURFDATA 0 2010
 UAIRDATA 3190 2010
 PROFBASE 0.0 METERS
 ME FINISHED

OU STARTING
 RECTABLE 1 FIRST
 RECTABLE ALLAVE FIRST
 PLOTFILE 1 P1 FIRST BM1T1P1.TXT
 PLOTFILE PERIOD P1 BM1T2P1.TXT
 PLOTFILE 1 P2 FIRST BM1T1P2.TXT
 PLOTFILE PERIOD P2 BM1T2P2.TXT
 PLOTFILE 1 P3 FIRST BM1T1P3.TXT
 PLOTFILE PERIOD P3 BM1T2P3.TXT
 OU FINISHED

Non-Combustion Volume Source (V1)
 CO STARTING
 TITLEONE Modeling for R1401 Risk Assessment Procedures
 TITLETWO 24 hrs/day; 7 days/week; 52 weeks/yr
 MODELOPT CONC FLAT
 AVERTIME 1 PERIOD
 URBANOPT 9818605 LA
 POLLUTID ANY
 RUNORNOT RUN
 CO FINISHED
 SO STARTING
 LOCATION V1 VOLUME 0.0 0.0 0.0

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RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212

```
SRCPARAM V1      0.0288      2.29      2.75      2.13
URBANSRC ALL
SRCGROUP V1      V1
SRCGROUP ALL
SO FINISHED
RE STARTING
GRIDPOLR UPOL1 STA
                ORIG 0.0 0.0
                DIST 33 58 83 108 208 308 508 1008
                GDIR 36 0.0 10.0
GRIDPOLR UPOL1 END
RE FINISHED
ME STARTING
SURFFILE AZUS_v9.SFC
PROFFILE AZUS_v9.PFL
SURFDATA 0 2010
UAIRDATA 3190 2010
SITEDATA 99999 2010
PROFBASE 0.0 METERS
ME FINISHED
OU STARTING
RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
PLOTFILE 1 V1 1ST BM1T1V1.TXT
PLOTFILE PERIOD V1 BM1T2V1.TXT
OU FINISHED
```

Non-Combustion Volume Source (V2 and V3)

```
CO STARTING
TITLEONE Modeling for R1401 Risk Assessment Procedures
TITLETWO 24 hrs/day; 7 days/week; 52 weeks/yr
MODELOPT CONC FLAT
AVERTIME 1 PERIOD
URBANOPT 9818605 LA
POLLUTID ANY
RUNORNOT RUN
CO FINISHED
SO STARTING
LOCATION V2 VOLUME 0.0 0.0 0.0
LOCATION V3 VOLUME 0.0 0.0 0.0
SRCPARAM V2      0.0288      2.29      5.01      2.13
SRCPARAM V3      0.0288      4.57      5.01      4.25
URBANSRC ALL
SRCGROUP V2      V2
SRCGROUP V3      V3
SRCGROUP ALL
SO FINISHED
RE STARTING
GRIDPOLR UPOL1 STA
                ORIG 0.0 0.0
                DIST 40 65 90 115 215 315 515 1015
                GDIR 36 0.0 10.0
GRIDPOLR UPOL1 END
RE FINISHED
ME STARTING
SURFFILE AZUS_v9.SFC
PROFFILE AZUS_v9.PFL
SURFDATA 0 2010
UAIRDATA 3190 2010
SITEDATA 99999 2010
PROFBASE 0.0 METERS
ME FINISHED
OU STARTING
RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
PLOTFILE 1 V2 1ST BM1T1V2.TXT
PLOTFILE 1 V3 1ST BM1T1V3.TXT
PLOTFILE PERIOD V2 BM1T2V2.TXT
PLOTFILE PERIOD V3 BM1T2V3.TXT
OU FINISHED
```

Non-Combustion Volume Source (V4 and V5)

```
CO STARTING
TITLEONE Modeling for R1401 Risk Assessment Procedures
TITLETWO 24 hrs/day; 7 days/week; 52 weeks/yr
MODELOPT CONC FLAT
AVERTIME 1 PERIOD
```

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212

```
URBANOPT 9818605 LA
POLLUTID ANY
RUNORNOT RUN
CO FINISHED
SO STARTING
LOCATION V4 VOLUME 0.0 0.0 0.0
LOCATION V5 VOLUME 0.0 0.0 0.0
SRCPARAM V4 0.0288 2.20 8.68 2.13
SRCPARAM V5 0.0288 4.57 8.68 4.25
URBANSRC ALL
SRCGROUP V4 V4
SRCGROUP V5 V5
SRCGROUP ALL
SO FINISHED
RE STARTING
GRIDPOLR UPOL1 STA
ORIG 0.0 0.0
DIST 51 76 101 126 226 326 526 1026
GDIR 36 0.0 10.0
GRIDPOLR UPOL1 END
RE FINISHED
ME STARTING
SURFFILE AZUS_v9.SFC
PROFFILE AZUS_v9.PFL
SURFDATA 0 2010
UAIRDATA 3190 2010
SITEDATA 99999 2010
PROFBASE 0.0 METERS
ME FINISHED
OU STARTING
RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
PLOTFILE 1 V4 1ST BM1T1V4.TXT
PLOTFILE 1 V5 1ST BM1T1V5.TXT
PLOTFILE PERIOD V4 BM1T2V4.TXT
PLOTFILE PERIOD V5 BM1T2V5.TXT
OU FINISHED
```

Non-Combustion Volume Source (V6)

```
CO STARTING
TITLEONE Modeling for R1401 Risk Assessment Procedures
TITLETWO 24 hrs/day; 7 days/week; 52 weeks/yr
MODELOPT CONC FLAT
AVERTIME 1 PERIOD
URBANOPT 9818605 LA
POLLUTID ANY
RUNORNOT RUN
CO FINISHED
SO STARTING
LOCATION V6 VOLUME 0.0 0.0 0.0
SRCPARAM V6 0.02885 4.57 15.04 4.25
URBANSRC ALL
SRCGROUP V6 V6
SRCGROUP ALL
SO FINISHED
RE STARTING
GRIDPOLR UPOL1 STA
ORIG 0.00 0.00
DIST 71 96 121 146 246 346 546 1046
GDIR 36 0.00 10.00
GRIDPOLR UPOL1 END
RE FINISHED
ME STARTING
SURFFILE AZUS_v9.SFC
PROFFILE AZUS_v9.PFL
SURFDATA 0 2010
UAIRDATA 3190 2010
SITEDATA 99999 2010
PROFBASE 0.0 METERS
ME FINISHED
OU STARTING
RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
PLOTFILE 1 V6 1ST BM1T1V6.TXT
PLOTFILE PERIOD V6 BM1T2V6.TXT
OU FINISHED
```


**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

Exhibit VIII - Sample AERMOD Input File for Combustion Sources

```

CO STARTING
TITLEONE Combustion Screening Table
TITLETWO Continuous Operation
MODELOPT CONC FLAT
AVERTIME 1 PERIOD
POLLUTID Any
RUNORNOT RUN
URBANOPT 9818605 LA
CO FINISHED
SO STARTING
LOCATION D1 POINT 0.0 0.0 0.0
LOCATION D2 POINT 0.0 0.0 0.0
LOCATION D3 POINT 0.0 0.0 0.0
LOCATION D4 POINT 0.0 0.0 0.0
LOCATION D5 POINT 0.0 0.0 0.0
LOCATION N1 POINT 0.0 0.0 0.0
LOCATION N2 POINT 0.0 0.0 0.0
LOCATION N3 POINT 0.0 0.0 0.0
LOCATION N4 POINT 0.0 0.0 0.0
LOCATION N5 POINT 0.0 0.0 0.0
LOCATION B1 POINT 0.0 0.0 0.0
LOCATION B2 POINT 0.0 0.0 0.0
LOCATION B3 POINT 0.0 0.0 0.0
LOCATION B4 POINT 0.0 0.0 0.0
LOCATION B5 POINT 0.0 0.0 0.0
LOCATION B6 POINT 0.0 0.0 0.0
LOCATION B7 POINT 0.0 0.0 0.0
SRCPARAM D1 2.88E-02 3.0 760 65.0 0.09
SRCPARAM D2 2.88E-02 3.0 760 55.0 0.12
SRCPARAM D3 2.88E-02 3.0 760 80.0 0.13
SRCPARAM D4 2.88E-02 3.0 770 90.0 0.15
SRCPARAM D5 2.88E-02 4.0 800 160.0 0.17
SRCPARAM N1 2.88E-02 4.0 850 40.0 0.07
SRCPARAM N2 2.88E-02 4.0 850 65.0 0.08
SRCPARAM N3 2.88E-02 4.0 890 55.0 0.14
SRCPARAM N4 2.88E-02 5.0 820 60.0 0.19
SRCPARAM N5 2.88E-02 7.0 750 65.0 0.35
SRCPARAM B1 2.88E-02 9.0 440 5.0 0.40
SRCPARAM B2 2.88E-02 9.0 470 7.0 0.50
SRCPARAM B3 2.88E-02 9.0 470 9.0 0.55
SRCPARAM B4 2.88E-02 10.0 470 10.0 0.67
SRCPARAM B5 2.88E-02 10.0 495 12.0 0.72
SRCPARAM B6 2.88E-02 14.0 440 10.0 1.10
SRCPARAM B7 2.88E-02 16.0 430 12.0 1.50
BUILDHGT D1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT D1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT D1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT D1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT D1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDWID D1 24.91 29.05 32.32 34.60 35.84 35.98
BUILDWID D1 35.03 33.02 30.00 33.02 35.03 35.98
BUILDWID D1 35.84 34.60 32.32 29.05 24.91 20.00
BUILDWID D1 24.91 29.05 32.32 34.60 35.84 35.98
BUILDWID D1 35.03 33.02 30.00 33.02 35.03 35.98
BUILDWID D1 35.84 34.60 32.32 29.05 24.91 20.00
BUILDLN D1 33.02 35.03 35.98 35.84 34.60 32.32
BUILDLN D1 29.05 24.91 20.00 24.91 29.05 32.32
BUILDLN D1 34.60 35.84 35.98 35.03 33.02 30.00
BUILDLN D1 33.02 35.03 35.98 35.84 34.60 32.32
BUILDLN D1 29.05 24.91 20.00 24.91 29.05 32.32
BUILDLN D1 34.60 35.84 35.98 35.03 33.02 30.00
XBADJ D1 -16.51 -17.52 -17.99 -17.92 -17.30 -16.16
XBADJ D1 -14.53 -12.45 -10.00 -12.45 -14.53 -16.16
XBADJ D1 -17.30 -17.92 -17.99 -17.52 -16.51 -15.00
XBADJ D1 -16.51 -17.52 -17.99 -17.92 -17.30 -16.16
XBADJ D1 -14.53 -12.45 -10.00 -12.45 -14.53 -16.16
XBADJ D1 -17.30 -17.92 -17.99 -17.52 -16.51 -15.00
YBADJ D1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ D1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ D1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ D1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ D1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ D1 0.00 0.00 0.00 0.00 0.00 0.00

```

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

BUILDHGT D2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID D2	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID D2	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID D2	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID D2	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID D2	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID D2	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN D2	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN D2	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN D2	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN D2	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN D2	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN D2	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ D2	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ D2	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ D2	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ D2	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ D2	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ D2	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ D2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D2	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT D3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID D3	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID D3	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID D3	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID D3	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID D3	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID D3	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN D3	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN D3	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN D3	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN D3	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN D3	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN D3	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ D3	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ D3	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ D3	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ D3	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ D3	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ D3	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ D3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ D3	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT D4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT D4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID D4	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID D4	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID D4	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID D4	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID D4	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID D4	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN D4	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN D4	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN D4	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN D4	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN D4	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN D4	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ D4	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

XBADJ	D4	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	D4	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ	D4	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	D4	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	D4	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ	D4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D4	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT	D5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	D5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	D5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	D5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	D5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	D5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID	D5	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	D5	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	D5	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID	D5	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	D5	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	D5	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLEN	D5	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN	D5	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN	D5	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLEN	D5	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN	D5	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN	D5	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ	D5	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	D5	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	D5	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ	D5	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	D5	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	D5	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ	D5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	D5	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT	N1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID	N1	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	N1	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	N1	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID	N1	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	N1	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	N1	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLEN	N1	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN	N1	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN	N1	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLEN	N1	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN	N1	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN	N1	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ	N1	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	N1	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	N1	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ	N1	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	N1	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	N1	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ	N1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N1	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT	N2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID	N2	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	N2	35.03	33.02	30.00	33.02	35.03	35.98

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

BUILDWID N2	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID N2	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID N2	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID N2	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN N2	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN N2	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN N2	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN N2	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN N2	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN N2	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ N2	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ N2	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ N2	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ N2	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ N2	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ N2	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ N2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N2	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT N3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID N3	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID N3	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID N3	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID N3	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID N3	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID N3	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN N3	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN N3	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN N3	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN N3	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN N3	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN N3	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ N3	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ N3	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ N3	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ N3	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ N3	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ N3	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ N3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N3	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT N4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT N4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID N4	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID N4	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID N4	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID N4	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID N4	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID N4	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN N4	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN N4	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN N4	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN N4	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN N4	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN N4	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ N4	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ N4	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ N4	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ N4	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ N4	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ N4	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ N4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ N4	0.00	0.00	0.00	0.00	0.00	0.00

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

YBADJ	N4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N4	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT	N5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	N5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID	N5	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	N5	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	N5	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID	N5	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	N5	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	N5	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN	N5	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN	N5	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN	N5	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN	N5	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN	N5	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN	N5	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ	N5	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	N5	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	N5	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ	N5	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	N5	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	N5	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ	N5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	N5	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT	B1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID	B1	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	B1	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	B1	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID	B1	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	B1	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	B1	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN	B1	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN	B1	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN	B1	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN	B1	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN	B1	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN	B1	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ	B1	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	B1	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	B1	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ	B1	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ	B1	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ	B1	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ	B1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	B1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	B1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	B1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	B1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	B1	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT	B2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT	B2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID	B2	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	B2	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	B2	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID	B2	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID	B2	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID	B2	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLN	B2	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLN	B2	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLN	B2	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLN	B2	33.02	35.03	35.98	35.84	34.60	32.32

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

BUILDLEN B2	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B2	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ B2	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B2	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B2	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ B2	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B2	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B2	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ B2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B2	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT B3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID B3	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B3	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B3	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID B3	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B3	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B3	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLEN B3	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B3	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B3	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLEN B3	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B3	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B3	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ B3	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B3	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B3	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ B3	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B3	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B3	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ B3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B3	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT B4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID B4	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B4	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B4	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID B4	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B4	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B4	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLEN B4	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B4	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B4	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLEN B4	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B4	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B4	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ B4	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B4	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B4	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ B4	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B4	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B4	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ B4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B4	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT B5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B5	4.00	4.00	4.00	4.00	4.00	4.00

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

BUILDHGT B5	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID B5	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B5	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B5	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID B5	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B5	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B5	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLEN B5	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B5	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B5	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLEN B5	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B5	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B5	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ B5	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B5	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B5	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ B5	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B5	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B5	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ B5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B5	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT B6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID B6	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B6	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B6	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID B6	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B6	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B6	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLEN B6	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B6	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B6	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLEN B6	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B6	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B6	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ B6	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B6	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B6	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ B6	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B6	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B6	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
YBADJ B6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ B6	0.00	0.00	0.00	0.00	0.00	0.00
BUILDHGT B7	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B7	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B7	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B7	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B7	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT B7	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID B7	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B7	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B7	35.84	34.60	32.32	29.05	24.91	20.00
BUILDWID B7	24.91	29.05	32.32	34.60	35.84	35.98
BUILDWID B7	35.03	33.02	30.00	33.02	35.03	35.98
BUILDWID B7	35.84	34.60	32.32	29.05	24.91	20.00
BUILDLEN B7	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B7	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B7	34.60	35.84	35.98	35.03	33.02	30.00
BUILDLEN B7	33.02	35.03	35.98	35.84	34.60	32.32
BUILDLEN B7	29.05	24.91	20.00	24.91	29.05	32.32
BUILDLEN B7	34.60	35.84	35.98	35.03	33.02	30.00
XBADJ B7	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B7	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B7	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00
XBADJ B7	-16.51	-17.52	-17.99	-17.92	-17.30	-16.16
XBADJ B7	-14.53	-12.45	-10.00	-12.45	-14.53	-16.16
XBADJ B7	-17.30	-17.92	-17.99	-17.52	-16.51	-15.00

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

```

YBADJ B7 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ B7 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ B7 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ B7 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ B7 0.00 0.00 0.00 0.00 0.00 0.00
URBANSRC D1
URBANSRC D2
URBANSRC D3
URBANSRC D4
URBANSRC D5
URBANSRC N1
URBANSRC N2
URBANSRC N3
URBANSRC N4
URBANSRC N5
URBANSRC B1
URBANSRC B2
URBANSRC B3
URBANSRC B4
URBANSRC B5
URBANSRC B6
URBANSRC B7
SRCGROUP D1 D1
SRCGROUP D2 D2
SRCGROUP D3 D3
SRCGROUP D4 D4
SRCGROUP D5 D5
SRCGROUP N1 N1
SRCGROUP N2 N2
SRCGROUP N3 N3
SRCGROUP N4 N4
SRCGROUP N5 N5
SRCGROUP B1 B1
SRCGROUP B2 B2
SRCGROUP B3 B3
SRCGROUP B4 B4
SRCGROUP B5 B5
SRCGROUP B6 B6
SRCGROUP B7 B7
SO FINISHED
RE STARTING
GRIDPOLR POL1 STA
      ORIG 0.0 0.0
      DIST 25 50 75 100 200 300 500 1000
      GDIR 36 10.0 10.0
GRIDPOLR POL1 END
RE FINISHED
ME STARTING
SURFFILE AZUS_v9.SFC
PROFFILE AZUS_v9.PFL
SURFDATA 0 2010
UAIRDATA 3190 2010
PROFBASE 0.0 METERS
ME FINISHED
OU STARTING
RECTABLE 1 FIRST
RECTABLE ALLAVE FIRST
PLOTFILE 1 D1 FIRST BM1T1D1.TXT
PLOTFILE PERIOD D1 BM1T2D1.TXT
PLOTFILE 1 D2 FIRST BM1T1D2.TXT
PLOTFILE PERIOD D2 BM1T2D2.TXT
PLOTFILE 1 D3 FIRST BM1T1D3.TXT
PLOTFILE PERIOD D3 BM1T2D3.TXT
PLOTFILE 1 D4 FIRST BM1T1D4.TXT
PLOTFILE PERIOD D4 BM1T2D4.TXT
PLOTFILE 1 D5 FIRST BM1T1D5.TXT
PLOTFILE PERIOD D5 BM1T2D5.TXT
PLOTFILE 1 N1 FIRST BM1T1N1.TXT
PLOTFILE PERIOD N1 BM1T2N1.TXT
PLOTFILE 1 N2 FIRST BM1T1N2.TXT
PLOTFILE PERIOD N2 BM1T2N2.TXT
PLOTFILE 1 N3 FIRST BM1T1N3.TXT
PLOTFILE PERIOD N3 BM1T2N3.TXT
PLOTFILE 1 N4 FIRST BM1T1N4.TXT
PLOTFILE PERIOD N4 BM1T2N4.TXT
PLOTFILE 1 N5 FIRST BM1T1N5.TXT
PLOTFILE PERIOD N5 BM1T2N5.TXT
PLOTFILE 1 B1 FIRST BM1T1B1.TXT

```


**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

PLOTFILE	PERIOD	B1		BM1T2B1.TXT
PLOTFILE	1	B2	FIRST	BM1T1B2.TXT
PLOTFILE	PERIOD	B2		BM1T2B2.TXT
PLOTFILE	1	B3	FIRST	BM1T1B3.TXT
PLOTFILE	PERIOD	B3		BM1T2B3.TXT
PLOTFILE	1	B4	FIRST	BM1T1B4.TXT
PLOTFILE	PERIOD	B4		BM1T2B4.TXT
PLOTFILE	1	B5	FIRST	BM1T1B5.TXT
PLOTFILE	PERIOD	B5		BM1T2B5.TXT
PLOTFILE	1	B6	FIRST	BM1T1B6.TXT
PLOTFILE	PERIOD	B6		BM1T2B6.TXT
PLOTFILE	1	B7	FIRST	BM1T1B7.TXT
PLOTFILE	PERIOD	B7		BM1T2B7.TXT

OU FINISHED

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

Exhibit IX - Sample AERMOD Input File for Crematories

```

CO STARTING
  TITLEONE Modeling for R1401 Risk Assessment Procedures
  TITLETWO Crematory - Continuous Operation
  MODELOPT CONC FLAT
  AVERTIME 1 PERIOD
  URBANOPT 9818605 LA
  POLLUTID Any
  RUNORNOT RUN
CO FINISHED
SO STARTING
  LOCATION P1 POINT 0.0 0.0 0.0
  LOCATION P2 POINT 0.0 0.0 0.0
  LOCATION P3 POINT 0.0 0.0 0.0
  SRCPARAM P1 2.885E-02 5.791 977.59 5.8 0.508
  SRCPARAM P2 2.885E-02 5.791 977.59 5.8 0.508
  SRCPARAM P3 2.885E-02 5.791 977.59 5.8 0.508
SO BUILDHGT P1 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P1 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P1 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P1 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P1 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P1 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDWID P1 24.97 27.62 29.44 30.36 30.36 29.44
SO BUILDWID P1 27.62 24.97 21.55 24.97 27.62 29.44
SO BUILDWID P1 30.36 30.36 29.44 27.62 24.97 21.55
SO BUILDWID P1 24.97 27.62 29.44 30.36 30.36 29.44
SO BUILDWID P1 27.62 24.97 21.55 24.97 27.62 29.44
SO BUILDWID P1 30.36 30.36 29.44 27.62 24.97 21.55
SO BUILDLLEN P1 24.97 27.62 29.44 30.36 30.36 29.44
SO BUILDLLEN P1 27.62 24.97 21.55 24.97 27.62 29.44
SO BUILDLLEN P1 30.36 30.36 29.44 27.62 24.97 21.55
SO BUILDLLEN P1 24.97 27.62 29.44 30.36 30.36 29.44
SO BUILDLLEN P1 27.62 24.97 21.55 24.97 27.62 29.44
SO BUILDLLEN P1 30.36 30.36 29.44 27.62 24.97 21.55
SO XBADJ P1 -12.48 -13.81 -14.72 -15.18 -15.18 -14.72
SO XBADJ P1 -13.81 -12.48 -10.78 -12.48 -13.81 -14.72
SO XBADJ P1 -15.18 -15.18 -14.72 -13.81 -12.48 -10.78
SO XBADJ P1 -12.48 -13.81 -14.72 -15.18 -15.18 -14.72
SO XBADJ P1 -13.81 -12.48 -10.78 -12.48 -13.81 -14.72
SO XBADJ P1 -15.18 -15.18 -14.72 -13.81 -12.48 -10.78
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
SO BUILDHGT P2 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P2 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P2 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P2 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P2 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDHGT P2 3.96 3.96 3.96 3.96 3.96 3.96
SO BUILDWID P2 35.31 39.07 41.64 42.94 42.94 41.64
SO BUILDWID P2 39.07 35.31 30.48 35.31 39.07 41.64
SO BUILDWID P2 42.94 42.94 41.64 39.07 35.31 30.48
SO BUILDWID P2 35.31 39.07 41.64 42.94 42.94 41.64
SO BUILDWID P2 39.07 35.31 30.48 35.31 39.07 41.64
SO BUILDWID P2 42.94 42.94 41.64 39.07 35.31 30.48
SO BUILDLLEN P2 35.31 39.07 41.64 42.94 42.94 41.64
SO BUILDLLEN P2 39.07 35.31 30.48 35.31 39.07 41.64
SO BUILDLLEN P2 42.94 42.94 41.64 39.07 35.31 30.48
SO BUILDLLEN P2 35.31 39.07 41.64 42.94 42.94 41.64
SO BUILDLLEN P2 39.07 35.31 30.48 35.31 39.07 41.64
SO BUILDLLEN P2 42.94 42.94 41.64 39.07 35.31 30.48
SO XBADJ P2 -17.65 -19.53 -20.82 -21.47 -21.47 -20.82
SO XBADJ P2 -19.53 -17.65 -15.24 -17.65 -19.53 -20.82
SO XBADJ P2 -21.47 -21.47 -20.82 -19.53 -17.65 -15.24
SO XBADJ P2 -17.65 -19.53 -20.82 -21.47 -21.47 -20.82
SO XBADJ P2 -19.53 -17.65 -15.24 -17.65 -19.53 -20.82
SO XBADJ P2 -21.47 -21.47 -20.82 -19.53 -17.65 -15.24
SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
SO YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00

```

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

SO YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	P3	3.96	3.96	3.96	3.96	3.96	3.96
SO BUILDHGT	P3	3.96	3.96	3.96	3.96	3.96	3.96
SO BUILDHGT	P3	3.96	3.96	3.96	3.96	3.96	3.96
SO BUILDHGT	P3	3.96	3.96	3.96	3.96	3.96	3.96
SO BUILDHGT	P3	3.96	3.96	3.96	3.96	3.96	3.96
SO BUILDHGT	P3	3.96	3.96	3.96	3.96	3.96	3.96
SO BUILDWID	P3	43.25	47.85	50.99	52.59	52.59	50.99
SO BUILDWID	P3	47.85	43.25	37.33	43.25	47.85	50.99
SO BUILDWID	P3	52.59	52.59	50.99	47.85	43.25	37.33
SO BUILDWID	P3	43.25	47.85	50.99	52.59	52.59	50.99
SO BUILDWID	P3	47.85	43.25	37.33	43.25	47.85	50.99
SO BUILDWID	P3	52.59	52.59	50.99	47.85	43.25	37.33
SO BUILDLEN	P3	43.25	47.85	50.99	52.59	52.59	50.99
SO BUILDLEN	P3	47.85	43.25	37.33	43.25	47.85	50.99
SO BUILDLEN	P3	52.59	52.59	50.99	47.85	43.25	37.33
SO BUILDLEN	P3	43.25	47.85	50.99	52.59	52.59	50.99
SO BUILDLEN	P3	47.85	43.25	37.33	43.25	47.85	50.99
SO BUILDLEN	P3	52.59	52.59	50.99	47.85	43.25	37.33
SO XBADJ	P3	-21.62	-23.92	-25.50	-26.30	-26.30	-25.50
SO XBADJ	P3	-23.92	-21.62	-18.67	-21.62	-23.92	-25.50
SO XBADJ	P3	-26.30	-26.30	-25.50	-23.92	-21.62	-18.67
SO XBADJ	P3	-21.62	-23.92	-25.50	-26.30	-26.30	-25.50
SO XBADJ	P3	-23.92	-21.62	-18.67	-21.62	-23.92	-25.50
SO XBADJ	P3	-26.30	-26.30	-25.50	-23.92	-21.62	-18.67
SO YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
SO YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00

URBANSRC P1
URBANSRC P2
URBANSRC P3
SRCGROUP P1 P1
SRCGROUP P2 P2
SRCGROUP P3 P3
SO SRCGROUP ALL

SO FINISHED
RE STARTING
GRIDPOLR POL1 STA
ORIG 0.0 0.0
DIST 25 50 75 100 200 300 500 1000
GDIR 36 10.0 10.0

GRIDPOLR POL1 END
RE FINISHED
ME STARTING
SURFFILE AZUS_v9.SFC
PROFFILE AZUS_v9.PFL
SURFDATA 0 2010
UAIRDATA 3190 2010
PROFBASE 0 METERS

ME FINISHED
OU STARTING
RECTABLE 1 FIRST
RECTABLE ALLAVE FIRST
PLOTFILE 1 P1 FIRST BM1T1P1.TXT
PLOTFILE PERIOD P1 BM1T2P1.TXT
PLOTFILE 1 P2 FIRST BM1T1P2.TXT
PLOTFILE PERIOD P2 BM1T2P2.TXT
PLOTFILE 1 P3 FIRST BM1T1P3.TXT
PLOTFILE PERIOD P3 BM1T2P3.TXT
OU FINISHED

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

**Exhibit X - Sample AERMOD Input Files for Gasoline Transfer and Dispensing Facilities
(Underground Storage Tanks and Aboveground Storage Tanks)**

Underground Gasoline Tank

```

CO STARTING
TITLEONE SCAQMD R461 SCREEN TABLE PREPARATION
TITLETWO Template - Underground, 10mX5mX4m building in middle
MODELOPT CONC FLAT
AVERTIME 1 PERIOD
URBANOPT 9818605 LA
POLLUTID ANY
RUNORNOT RUN
CO FINISHED
SO STARTING
LOCATION P1 POINT 0.0 0.0 0.0
LOCATION P3 POINT 0.0 0.0 0.0
LOCATION P5 POINT 0.0 0.0 0.0
LOCATION P2 POINT 0.0 0.0 0.0
LOCATION P4 POINT 0.0 0.0 0.0
LOCATION P6 POINT 0.0 0.0 0.0
LOCATION V1 VOLUME 0.0 0.0 0.0
LOCATION V4 VOLUME 0.0 0.0 0.0
LOCATION V7 VOLUME 0.0 0.0 0.0
LOCATION V2 VOLUME 0.0 0.0 0.0
LOCATION V5 VOLUME 0.0 0.0 0.0
LOCATION V8 VOLUME 0.0 0.0 0.0
LOCATION V3 VOLUME 0.0 0.0 0.0
LOCATION V6 VOLUME 0.0 0.0 0.0
LOCATION V9 VOLUME 0.0 0.0 0.0
SRCPARAM P1 9.84E-06 3.66 291.5 0.00063 0.051
SRCPARAM P2 1.57E-06 3.66 288.7 0.00010 0.051
SRCPARAM P3 2.30E-06 3.66 291.5 0.00063 0.051
SRCPARAM P4 3.68E-07 3.66 288.7 0.00010 0.051
SRCPARAM P5 9.56E-09 3.66 291.5 0.00063 0.051
SRCPARAM P6 1.53E-09 3.66 288.7 0.00010 0.051
SRCPARAM V1 2.10E-05 1.0 3.02 2.33
SRCPARAM V2 2.44E-05 0.0 3.02 2.33
SRCPARAM V3 5.90E-07 1.0 3.02 2.33
SRCPARAM V4 4.91E-06 1.0 3.02 2.33
SRCPARAM V5 4.44E-05 0.0 3.02 2.33
SRCPARAM V6 1.38E-07 1.0 3.02 2.33
SRCPARAM V7 2.04E-08 1.0 3.02 2.33
SRCPARAM V8 6.00E-06 0.0 3.02 2.33
SRCPARAM V9 5.74E-10 1.0 3.02 2.33
BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
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BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P1 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P2 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P2 4.00 4.00 4.00 4.00 4.00 4.00
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BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P3 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P4 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P4 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P4 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P4 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P4 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P5 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P5 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P5 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P5 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P5 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P5 4.00 4.00 4.00 4.00 4.00 4.00
BUILDHGT P6 4.00 4.00 4.00 4.00 4.00 4.00

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

BUILDHGT P6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P6	4.00	4.00	4.00	4.00	4.00	4.00
BUILDWID P1	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P1	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P1	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P1	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P1	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P1	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P2	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P2	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P2	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P2	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P2	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P2	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P3	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P3	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P3	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P3	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P3	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P3	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P4	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P4	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P4	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P4	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P4	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P4	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P5	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P5	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P5	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P5	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P5	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P5	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P6	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P6	11.11	10.72	10.00	10.72	11.11	11.16
BUILDWID P6	10.87	10.26	9.33	8.12	6.66	5.00
BUILDWID P6	6.66	8.12	9.33	10.26	10.87	11.16
BUILDWID P6	11.11	10.72	10.00	10.72	11.11	11.16
BUILDLEN P1	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P1	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P1	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P1	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P1	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P1	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P2	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P2	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P2	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P2	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P2	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P2	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P3	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P3	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P3	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P3	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P3	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P3	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P4	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P4	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P4	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P4	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P4	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P4	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P5	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P5	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P5	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P5	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P5	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P5	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P6	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P6	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P6	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN P6	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN P6	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN P6	10.26	10.87	11.16	11.11	10.72	10.00
XBADJ P1	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ P1	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

XBADJ	P1	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P1	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P1	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P1	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P2	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P2	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P2	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P2	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P2	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P2	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P3	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P3	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P3	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P3	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P3	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P3	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P4	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P4	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P4	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P4	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P4	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P4	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P5	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P5	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P5	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P5	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P5	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P5	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P6	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P6	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P6	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P6	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P6	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P6	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
URBANSRC	P1						
URBANSRC	P2						
URBANSRC	P3						
URBANSRC	P4						
URBANSRC	P5						
URBANSRC	P6						
URBANSRC	V1						
URBANSRC	V2						
URBANSRC	V3						

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

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URBANSRC V4
URBANSRC V5
URBANSRC V6
URBANSRC V7
URBANSRC V8
URBANSRC V9
EMISFACT P1 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
EMISFACT P1 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT P1 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT P1 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
EMISFACT P2 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
EMISFACT P2 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT P2 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT P2 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
EMISFACT P3 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
EMISFACT P3 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
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EMISFACT P4 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
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EMISFACT P4 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
EMISFACT P5 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
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EMISFACT P5 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
EMISFACT P6 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
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EMISFACT V2 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
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EMISFACT V3 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
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EMISFACT V5 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
EMISFACT V6 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
EMISFACT V6 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT V6 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT V6 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
EMISFACT V7 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
EMISFACT V7 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT V7 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT V7 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
EMISFACT V8 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
EMISFACT V8 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT V8 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT V8 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
EMISFACT V9 HROFDY 0.48 0.48 0.48 0.48 0.48 0.48
EMISFACT V9 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT V9 HROFDY 1.37 1.37 1.37 1.37 1.37 1.37
EMISFACT V9 HROFDY 1.37 1.37 0.48 0.48 0.48 0.48
SRCGROUP BE P1 P2 V1 V2 V3
SRCGROUP EB P3 P4 V4 V5 V6
SRCGROUP NA P5 P6 V7 V8 V9
SO FINISHED
RE STARTING
GRIDPOLR POL1 STA
      ORIG 0.0 0.0
      DIST 34 59 84 109 209 309 509 1009
      GDIR 36 10.0 10.0
GRIDPOLR POL1 END
RE FINISHED
ME STARTING
SURFFILE AZUS_v9.SFC

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212

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PROFFILE AZUS_v9.PFL
SURFDATA 0 2010
UAIRDATA 3190 2010
SITEDATA 99999 2010
PROFBASE 0.0 METERS
ME FINISHED
OU STARTING
RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
PLOTFILE 1 BE 1ST UMIT1BE.TXT
PLOTFILE 1 EB 1ST UMIT1EB.TXT
PLOTFILE 1 NA 1ST UMIT1NA.TXT
PLOTFILE PERIOD BE UMIT2BE.TXT
PLOTFILE PERIOD EB UMIT2EB.TXT
PLOTFILE PERIOD NA UMIT2NA.TXT
OU FINISHED

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Aboveground Gasoline Tank

```

CO STARTING
TITLEONE SCAQMD R461 SCREEN TABLE PREPARATION
TITLETWO Template - Aboveground, 10mX5mX4m building in middle
MODELOPT CONC FLAT
AVERTIME 1 PERIOD
POLLUTID ANY
RUNORNOT RUN
URBANOPT 9818605 LA
CO FINISHED
SO STARTING

```

LOCATION P1	POINT	0.0	0.0	0.0		
LOCATION P3	POINT	0.0	0.0	0.0		
LOCATION P5	POINT	0.0	0.0	0.0		
LOCATION P2	POINT	0.0	0.0	0.0		
LOCATION P4	POINT	0.0	0.0	0.0		
LOCATION P6	POINT	0.0	0.0	0.0		
LOCATION V1	VOLUME	0.0	0.0	0.0		
LOCATION V4	VOLUME	0.0	0.0	0.0		
LOCATION V7	VOLUME	0.0	0.0	0.0		
LOCATION V2	VOLUME	0.0	0.0	0.0		
LOCATION V5	VOLUME	0.0	0.0	0.0		
LOCATION V8	VOLUME	0.0	0.0	0.0		
LOCATION V3	VOLUME	0.0	0.0	0.0		
LOCATION V6	VOLUME	0.0	0.0	0.0		
LOCATION V9	VOLUME	0.0	0.0	0.0		
SRCPARAM P1	2.75E-05	3.66	291.0	0.0018	0.051	
SRCPARAM P2	3.47E-06	3.66	289.0	0.00022	0.051	
SRCPARAM P3	6.44E-06	3.66	291.0	0.0018	0.051	
SRCPARAM P4	8.13E-07	3.66	289.0	0.00022	0.051	
SRCPARAM P5	2.67E-08	3.66	291.0	0.0018	0.051	
SRCPARAM P6	3.38E-09	3.66	289.0	0.00022	0.051	
SRCPARAM V1	1.36E-05	1.0	3.02	2.33		
SRCPARAM V2	2.44E-05	0.0	3.02	2.33		
SRCPARAM V3	5.90E-07	1.0	3.02	2.33		
SRCPARAM V4	3.19E-06	1.0	3.02	2.33		
SRCPARAM V5	4.44E-05	0.0	3.02	2.33		
SRCPARAM V6	1.38E-07	1.0	3.02	2.33		
SRCPARAM V7	1.32E-08	1.0	3.02	2.33		
SRCPARAM V8	5.99E-06	0.0	3.02	2.33		
SRCPARAM V9	5.73E-10	1.0	3.02	2.33		
BUILDHGT P1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P1	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P2	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P3	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P4	4.00	4.00	4.00	4.00	4.00	4.00
BUILDHGT P4	4.00	4.00	4.00	4.00	4.00	4.00

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

BUILDLEN	P5	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN	P5	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN	P5	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN	P6	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN	P6	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN	P6	10.26	10.87	11.16	11.11	10.72	10.00
BUILDLEN	P6	10.72	11.11	11.16	10.87	10.26	9.33
BUILDLEN	P6	8.12	6.66	5.00	6.66	8.12	9.33
BUILDLEN	P6	10.26	10.87	11.16	11.11	10.72	10.00
XBADJ	P1	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P1	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P1	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P1	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P1	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P1	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P2	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P2	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P2	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P2	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P2	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P2	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P3	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P3	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P3	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P3	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P3	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P3	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P4	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P4	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P4	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P4	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P4	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P4	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P5	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P5	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P5	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P5	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P5	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P5	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P6	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P6	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P6	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
XBADJ	P6	-5.36	-5.55	-5.58	-5.44	-5.13	-4.67
XBADJ	P6	-4.06	-3.33	-2.50	-3.33	-4.06	-4.67
XBADJ	P6	-5.13	-5.44	-5.58	-5.55	-5.36	-5.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P1	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P2	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P3	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P4	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P5	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
YBADJ	P6	0.00	0.00	0.00	0.00	0.00	0.00
URBANSRC	P1						
URBANSRC	P2						
URBANSRC	P3						
URBANSRC	P4						
URBANSRC	P5						
URBANSRC	P6						
URBANSRC	V1						
URBANSRC	V2						
URBANSRC	V3						
URBANSRC	V4						
URBANSRC	V5						
URBANSRC	V6						
URBANSRC	V7						
URBANSRC	V8						
URBANSRC	V9						
EMISFACT	P1	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	P1	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P1	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P1	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	P2	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	P2	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P2	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P2	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	P3	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	P3	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P3	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P3	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	P4	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	P4	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P4	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P4	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	P5	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	P5	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P5	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P5	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	P6	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	P6	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P6	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	P6	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V1	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V1	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V1	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V1	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V2	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V2	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V2	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V2	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V3	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V3	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V3	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V3	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V4	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V4	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V4	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V4	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V5	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V5	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V5	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V5	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V6	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V6	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V6	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V6	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V7	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V7	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V7	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V7	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V8	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V8	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V8	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V8	HROFDY	1.37	1.37	0.48	0.48	0.48
EMISFACT	V9	HROFDY	0.48	0.48	0.48	0.48	0.48
EMISFACT	V9	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V9	HROFDY	1.37	1.37	1.37	1.37	1.37
EMISFACT	V9	HROFDY	1.37	1.37	0.48	0.48	0.48
SRCGROUP	BE	P1	P2	V1	V2	V3	
SRCGROUP	EB	P3	P4	V4	V5	V6	

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

```
SRCGROUP NA      P5 P6 V7 V8 V9
SO FINISHED
RE STARTING
  GRIDPOLR POL1 STA
    ORIG 0.0 0.0
    DIST 34 59 84 109 209 309 509 1009
    GDIR 36 10.0 10.0
  GRIDPOLR POL1 END
RE FINISHED
ME STARTING
  SURFFILE AZUS_v9.SFC
  PROFFILE AZUS_v9.PFL
  SURFDATA 0 2010
  UAIRDATA 3190 2010
  SITEDATA 99999 2010
  PROFBASE 0.0 METERS
ME FINISHED
OU STARTING
  RECTABLE ALLAVE 1ST
  RECTABLE 1 1ST
  PLOTFILE 1 BE 1ST AM1T1BE.TXT
  PLOTFILE 1 EB 1ST AM1T1EB.TXT
  PLOTFILE 1 NA 1ST AM1T1NA.TXT
  PLOTFILE PERIOD BE AM1T2BE.TXT
  PLOTFILE PERIOD EB AM1T2EB.TXT
  PLOTFILE PERIOD NA AM1T2NA.TXT
OU FINISHED
```

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

EXHIBIT XI - Sample AERMOD Input File for Spray Booths

```

CO STARTING
TITLEONE Spraybooth, 8-hour
MODELOPT CONC FLAT
AVERTIME 1 PERIOD
URBANOPT 9818605 LA
POLLUTID OTHER
RUNORNOT RUN
ERRORFIL Spraybooth.err
CO FINISHED
SO STARTING
LOCATION P1 POINT 0.000 0.000 0.0
LOCATION P2 POINT 0.000 0.000 0.0
SRCPARAM P1 0.0865 4.877 0.000 8.05709 0.864
SRCPARAM P2 0.0865 7.315 0.000 8.04963 0.864
BUILDHGT P1 3.05 3.05 3.05 3.05 3.05 3.05
BUILDHGT P1 3.05 3.05 3.05 3.05 3.05 3.05
BUILDHGT P1 3.05 3.05 3.05 3.05 3.05 3.05
BUILDHGT P1 3.05 3.05 3.05 3.05 3.05 3.05
BUILDHGT P1 3.05 3.05 3.05 3.05 3.05 3.05
BUILDHGT P1 3.05 3.05 3.05 3.05 3.05 3.05
BUILDHGT P2 5.49 5.49 5.49 5.49 5.49 5.49
BUILDHGT P2 5.49 5.49 5.49 5.49 5.49 5.49
BUILDHGT P2 5.49 5.49 5.49 5.49 5.49 5.49
BUILDHGT P2 5.49 5.49 5.49 5.49 5.49 5.49
BUILDHGT P2 5.49 5.49 5.49 5.49 5.49 5.49
BUILDHGT P2 5.49 5.49 5.49 5.49 5.49 5.49
BUILDWID P1 31.85 42.74 52.32 60.32 66.48 70.62
BUILDWID P1 72.62 72.41 70.00 72.41 72.62 70.62
BUILDWID P1 66.48 60.32 52.32 42.74 31.85 20.00
BUILDWID P1 31.85 42.74 52.32 60.32 66.48 70.62
BUILDWID P1 72.62 72.41 70.00 72.41 72.62 70.62
BUILDWID P1 66.48 60.32 52.32 42.74 31.85 20.00
BUILDWID P2 31.85 42.74 52.32 60.32 66.48 70.62
BUILDWID P2 72.62 72.41 70.00 72.41 72.62 70.62
BUILDWID P2 66.48 60.32 52.32 42.74 31.85 20.00
BUILDWID P2 31.85 42.74 52.32 60.32 66.48 70.62
BUILDWID P2 72.62 72.41 70.00 72.41 72.62 70.62
BUILDWID P2 66.48 60.32 52.32 42.74 31.85 20.00
BUILDLEN P1 72.41 72.62 70.62 66.48 60.32 52.32
BUILDLEN P1 42.74 31.85 20.00 31.85 42.74 52.32
BUILDLEN P1 60.32 66.48 70.62 72.62 72.41 70.00
BUILDLEN P1 72.41 72.62 70.62 66.48 60.32 52.32
BUILDLEN P1 42.74 31.85 20.00 31.85 42.74 52.32
BUILDLEN P1 60.32 66.48 70.62 72.62 72.41 70.00
BUILDLEN P2 72.41 72.62 70.62 66.48 60.32 52.32
BUILDLEN P2 42.74 31.85 20.00 31.85 42.74 52.32
BUILDLEN P2 60.32 66.48 70.62 72.62 72.41 70.00
BUILDLEN P2 72.41 72.62 70.62 66.48 60.32 52.32
BUILDLEN P2 42.74 31.85 20.00 31.85 42.74 52.32
BUILDLEN P2 60.32 66.48 70.62 72.62 72.41 70.00
XBADJ P1 -36.20 -36.31 -35.31 -33.24 -30.16 -26.16
XBADJ P1 -21.37 -15.93 -10.00 -15.93 -21.37 -26.16
XBADJ P1 -30.16 -33.24 -35.31 -36.31 -36.20 -35.00
XBADJ P1 -36.20 -36.31 -35.31 -33.24 -30.16 -26.16
XBADJ P1 -21.37 -15.93 -10.00 -15.93 -21.37 -26.16
XBADJ P1 -30.16 -33.24 -35.31 -36.31 -36.20 -35.00
XBADJ P2 -36.20 -36.31 -35.31 -33.24 -30.16 -26.16
XBADJ P2 -21.37 -15.93 -10.00 -15.93 -21.37 -26.16
XBADJ P2 -30.16 -33.24 -35.31 -36.31 -36.20 -35.00
XBADJ P2 -36.20 -36.31 -35.31 -33.24 -30.16 -26.16
XBADJ P2 -21.37 -15.93 -10.00 -15.93 -21.37 -26.16
XBADJ P2 -30.16 -33.24 -35.31 -36.31 -36.20 -35.00
YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P1 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
YBADJ P2 0.00 0.00 0.00 0.00 0.00 0.00
URBANSRC ALL
EMISFACT P2 HROFDY 0.0 0.0 0.0 0.0 0.0 0.0

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RISK ASSESSMENT PROCEDURES FOR RULES 1401,1401.1 & 212**

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EMISFACT P2          HROFDY 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT P2          HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT P2          HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT P1          HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT P1          HROFDY 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT P1          HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT P1          HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
SRCGROUP P1          P1
SRCGROUP P2          P2
SO FINISHED
RE STARTING
GRIDPOLR GRID STA
                ORIG 0.00 0.00
                DIST 25 50 75 100 200 300 500 1000
                GDIR 36 0.00 10.00
GRIDPOLR GRID END
RE FINISHED
ME STARTING
SURFFILE E:\SCRAM\2017MetUpdate\Outputs\AZUS_v9.SFC
PROFFILE E:\SCRAM\2017MetUpdate\Outputs\AZUS_v9.PFL
SURFDATA 3102 2010
UAIRDATA 3190 2010
PROFBASE 0.0 METERS
ME FINISHED
OU STARTING
RECTABLE ALLAVE 1ST
RECTABLE 1 1ST
PLOTFILE 1          P1 FIRST AM1T1P1.TXT
PLOTFILE 1          P2 FIRST AM1T1P2.TXT
PLOTFILE PERIOD P1          AM1T2P1.TXT
PLOTFILE PERIOD P2          AM1T2P2.TXT
SUMMFILE Spraybooth.sum
OU FINISHED
```

South Coast Air Quality Management District



PERMIT APPLICATION PACKAGE “N”

**For Use in Conjunction with the
RISK ASSESSMENT PROCEDURES
for Rules 1401, 1401.1, and 212**

Version 8.1

PERMIT APPLICATION PACKAGE “N”
For use in conjunction with the
RISK ASSESSMENT PROCEDURES
FOR RULES 1401, 1401.1, AND 212,
VERSION 8.1

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SCAQMD PERMIT APPLICATION PACKAGE “N”

Tables Effective for Applications Deemed Complete On or After October 1, 2017

Table 1.0 - Screening Emission Levels

THESE ARE NOT EMISSION LIMITS. Exceedances of these levels indicate that a screening health risk assessment should be performed.

Pollutant		Date Toxicity Criteria Last Updated				Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Toxic Air Contaminant	CAS No	Cancer	Chronic	8-hr Chronic	Acute	Emissions at 25 m, lb/yr	Emissions at 50 m, lb/yr	Emissions at 100 m, lb/yr	Emissions at 25 m, lb/hr	Emissions at 50 m, lb/hr	Emissions at 100 m, lb/hr
Acetaldehyde	75-07-0	4/99[5/93]	12/19/2008	12/19/2008	12/19/2008	5.31E+00 (ca)	1.94E+01 (ca)	4.44E+01 (ca)	1.04E-01	2.59E-01	6.49E-01
Acetamide	60-35-5	4/1/1999				7.59E-01 (ca)	2.77E+00 (ca)	6.35E+00 (ca)			
Acrolein	107-02-8		12/19/2008	12/19/2008	12/19/2008	6.00E+00 (8hr)	2.19E+01 (8hr)	5.02E+01 (8hr)	5.52E-04	1.38E-03	3.45E-03
Acrylamide	79-06-1	4/99[7/90]				1.18E-02 (ca)	4.30E-02 (ca)	9.87E-02 (ca)			
Acrylic Acid	79-10-7				4/1/1999				1.33E+00	3.30E+00	8.28E+00
Acrylonitrile	107-13-1	4/99[1/91]	12/1/2001			5.31E-02 (ca)	1.94E-01 (ca)	4.44E-01 (ca)			
Allyl Chloride	107-05-1	4/1/1999				2.53E+00 (ca)	9.22E+00 (ca)	2.12E+01 (ca)			
2-Aminoanthraquinone	117-79-3	4/1/1999				1.61E+00 (ca)	5.87E+00 (ca)	1.35E+01 (ca)			
Ammonia	7664-41-7		2/1/2000		4/1/1999	7.20E+03 (ch)	2.62E+04 (ch)	6.02E+04 (ch)	7.07E-01	1.76E+00	4.42E+00
Aniline	62-53-3	4/1/1999				9.32E+00 (ca)	3.40E+01 (ca)	7.79E+01 (ca)			
Arsenic And Compounds (Inorganic)	7440-38-2	7/1/1990	12/19/2008	12/19/2008	12/19/2008	4.56E-04 (ca)	1.66E-03 (ca)	3.81E-03 (ca)	4.42E-05	1.10E-04	2.76E-04
Arsine	7784-42-1		12/19/2008	12/19/2008	12/19/2008	1.29E-01 (8hr)	4.68E-01 (8hr)	1.07E+00 (8hr)	4.42E-05	1.10E-04	2.76E-04
Asbestos	1332-21-4	3/1/1986				7.25E-07 (ca)	2.64E-06 (ca)	6.06E-06 (ca)			
Benzene	71-43-2	1/1/1985	6/27/2014	6/27/2014	6/27/2014	5.31E-01 (ca)	1.94E+00 (ca)	4.44E+00 (ca)	5.96E-03	1.49E-02	3.73E-02
Benzidine (And Its Salts)	92-87-5	4/99[1/91]				1.06E-04 (ca)	3.87E-04 (ca)	8.89E-04 (ca)			
Benzidine Based Dyes	0	4/99[1/91]				1.06E-04 (ca)	3.87E-04 (ca)	8.89E-04 (ca)			
Direct Black	1937-37-7	4/99[1/91]				1.06E-04 (ca)	3.87E-04 (ca)	8.89E-04 (ca)			
Direct Blue	2602-46-2	4/99[1/91]				1.06E-04 (ca)	3.87E-04 (ca)	8.89E-04 (ca)			
Direct Brown (Technical Grade)	16071-86-6	4/99[1/91]				1.06E-04 (ca)	3.87E-04 (ca)	8.89E-04 (ca)			
Benzyl Chloride	100-44-7	4/1/1999			4/1/1999	3.13E-01 (ca)	1.14E+00 (ca)	2.61E+00 (ca)	5.30E-02	1.32E-01	3.31E-01
Beryllium And Compounds	7440-41-7	4/99[7/90]	12/1/2001			6.33E-03 (ca)	2.30E-02 (ca)	5.29E-02 (ca)			
Bis(2-Chloroethyl)Ether (Dichloroethyl Ether)	111-44-4	4/1/1999				2.13E-02 (ca)	7.74E-02 (ca)	1.78E-01 (ca)			
Bis(Chloromethyl)Ether	542-88-1	4/99[1/91]				1.16E-03 (ca)	4.21E-03 (ca)	9.66E-03 (ca)			
Potassium Bromate	7758-01-2	4/99[10/93]				1.08E-01 (ca)	3.95E-01 (ca)	9.07E-01 (ca)			
1,3-Butadiene	106-99-0	7/1/1992	7/29/2013	7/29/2013	7/29/2013	8.86E-02 (ca)	3.23E-01 (ca)	7.41E-01 (ca)	1.46E-01	3.63E-01	9.11E-01
Cadmium And Compounds	7440-43-9	1/1/1987	1/1/2001			3.54E-03 (ca)	1.29E-02 (ca)	2.96E-02 (ca)			
Caprolactum	105-60-2		6/1/2013	6/1/2013	6/1/2013	6.00E+01 (8hr)	2.19E+02 (8hr)	5.02E+02 (8hr)	1.10E-02	2.75E-02	6.90E-02
Carbon Disulfide	75-15-0		5/13/2002		4/1/1999	2.88E+04 (ch)	1.05E+05 (ch)	2.41E+05 (ch)	1.37E+00	3.41E+00	8.56E+00
Carbon Tetrachloride (Tetrachloromethane)	56-23-5	9/1/1987	1/1/2001		4/1/1999	3.54E-01 (ca)	1.29E+00 (ca)	2.96E+00 (ca)	4.20E-01	1.05E+00	2.62E+00
Carbonyl Sulfide	463-58-1		2/21/2017	2/21/2017	2/21/2017	8.57E+01 (8hr)	3.12E+02 (8hr)	7.17E+02 (8hr)	1.46E-01	3.63E-01	9.11E-01
Chlorinated Paraffins	108171-26-2	4/1/1999				5.97E-01 (ca)	2.17E+00 (ca)	4.99E+00 (ca)			
Chlorine	7782-50-5		2/1/2000		4/1/1999	7.20E+00 (ch)	2.62E+01 (ch)	6.02E+01 (ch)	4.64E-02	1.16E-01	2.90E-01
Chlorine Dioxide	10049-04-4		1/1/2001			2.16E+01 (ch)	7.87E+01 (ch)	1.81E+02 (ch)			
4-Chloro-O-Phenylenediamine	95-83-0	4/1/1999				3.32E+00 (ca)	1.21E+01 (ca)	2.78E+01 (ca)			

SCAQMD PERMIT APPLICATION PACKAGE “N”

Tables Effective for Applications Deemed Complete On or After October 1, 2017

Table 1.0 – Screening Emission Levels (continued)

Pollutant		Date Toxicity Criteria Last Updated				Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Toxic Air Contaminant	CAS No	Cancer	Chronic	8-hr Chronic	Acute	Emissions at 25 m, lb/yr	Emissions at 50 m, lb/yr	Emissions at 100 m, lb/yr	Emissions at 25 m, lb/hr	Emissions at 50 m, lb/hr	Emissions at 100 m, lb/hr
Chlorobenzene	108-90-7		1/1/2001			3.60E+04 (ch)	1.31E+05 (ch)	3.01E+05 (ch)			
Chloroform	67-66-3	12/1/1990	4/1/2000		4/1/1999	2.80E+00 (ca)	1.02E+01 (ca)	2.34E+01 (ca)	3.31E-02	8.26E-02	2.07E-01
Pentachlorophenol	87-86-5	4/1/1999				2.95E+00 (ca)	1.08E+01 (ca)	2.47E+01 (ca)			
2,4,6-Trichlorophenol	88-06-2	4/99[1/91]				7.59E-01 (ca)	2.77E+00 (ca)	6.35E+00 (ca)			
Chloropicrin	76-06-2		12/1/2001		4/1/1999	1.44E+01 (ch)	5.24E+01 (ch)	1.20E+02 (ch)	6.40E-03	1.60E-02	4.00E-02
P-Chloro-O-Toluidine	95-69-2	4/1/1999				1.97E-01 (ca)	7.17E-01 (ca)	1.65E+00 (ca)			
Chromium 6+	18540-29-9	1/1/1986	1/1/2001			6.53E-05 (ca)	2.38E-04 (ca)	5.46E-04 (ca)			
Barium Chromate	10294-40-3	1/1/1986	1/1/2001			3.18E-04 (ca)	1.16E-03 (ca)	2.66E-03 (ca)			
Calcium Chromate	13765-19-0	1/1/1986	1/1/2001			1.96E-04 (ca)	7.13E-04 (ca)	1.64E-03 (ca)			
Lead Chromate	7758-97-6	1/1/1986	1/1/2001			4.06E-04 (ca)	1.48E-03 (ca)	3.39E-03 (ca)			
Sodium Dichromate	10588-01-9	1/1/1986	1/1/2001			1.64E-04 (ca)	5.99E-04 (ca)	1.37E-03 (ca)			
Strontium Chromate	7789-06-2	1/1/1986	1/1/2001			2.56E-04 (ca)	9.31E-04 (ca)	2.14E-03 (ca)			
Chromic Trioxide (As Chromic Acid Mist)	1333-82-0	1/1/1986	1/1/2001			1.25E-04 (ca)	4.57E-04 (ca)	1.05E-03 (ca)			
Copper And Compounds	7440-50-8				4/1/1999				2.21E-02	5.51E-02	1.38E-01
P-Cresidine	120-71-8	4/1/1999				3.54E-01 (ca)	1.29E+00 (ca)	2.96E+00 (ca)			
Cresols (Mixtures Of)	1319-77-3		1/1/2001			2.16E+04 (ch)	7.87E+04 (ch)	1.81E+05 (ch)			
M-Cresol	108-39-4		1/1/2001			2.16E+04 (ch)	7.87E+04 (ch)	1.81E+05 (ch)			
O-Cresol	95-48-7		1/1/2001			2.16E+04 (ch)	7.87E+04 (ch)	1.81E+05 (ch)			
P-Cresol	106-44-5		1/1/2001			2.16E+04 (ch)	7.87E+04 (ch)	1.81E+05 (ch)			
Cupferron	135-20-6	4/1/1999				2.42E-01 (ca)	8.80E-01 (ca)	2.02E+00 (ca)			
Hydrogen Cyanide (Hydrocyanic Acid)	74-90-8		4/1/2000		4/1/1999	3.24E+02 (ch)	1.18E+03 (ch)	2.71E+03 (ch)	7.51E-02	1.87E-01	4.69E-01
2,4-Diaminoanisole	615-05-4	4/1/1999				2.31E+00 (ca)	8.42E+00 (ca)	1.93E+01 (ca)			
2,4-Diaminotoluene	95-80-7	4/1/1999				1.33E-02 (ca)	4.84E-02 (ca)	1.11E-01 (ca)			
1,2-Dibromo-3-Chloropropane (Dbcp)	96-12-8	4/99[1/92]				7.59E-03 (ca)	2.77E-02 (ca)	6.35E-02 (ca)			
P-Dichlorobenzene	106-46-7	4/99[1/91]	1/1/2001			1.33E+00 (ca)	4.84E+00 (ca)	1.11E+01 (ca)			
3,3-Dichlorobenzidine	91-94-1	4/99[1/91]				4.43E-02 (ca)	1.61E-01 (ca)	3.70E-01 (ca)			
1,1,-Dichloroethane (Ethylidene Dichloride)	75-34-3	4/1/1999				9.32E+00 (ca)	3.40E+01 (ca)	7.79E+01 (ca)			
Di(2-Ethylhexyl)Phthalate (Dehp)	117-81-7	4/99[1/92]				1.21E+00 (ca)	4.41E+00 (ca)	1.01E+01 (ca)			
Diethanolamine	111-42-2		12/1/2001			1.15E+02 (ch)	3.49E+02 (ch)	7.12E+02 (ch)			
P-Dimethylaminoazo benzene	60-11-7	4/1/1999				1.16E-02 (ca)	4.21E-02 (ca)	9.66E-02 (ca)			
N,N-Dimethyl Formamide	68-12-2		1/1/2001			2.88E+03 (ch)	1.05E+04 (ch)	2.41E+04 (ch)			
2,4-Dinitrotoluene	121-14-2	4/1/1999				1.71E-01 (ca)	6.24E-01 (ca)	1.43E+00 (ca)			
1,4-Dioxane (1,4-Diethylene Dioxide)	123-91-1	4/99[1/91]	4/1/2000		4/1/1999	1.97E+00 (ca)	7.17E+00 (ca)	1.65E+01 (ca)	6.63E-01	1.65E+00	4.14E+00
1,2-Diphenylhydrazine {Hydrazobenzene}	122-66-7	1/1/1988				6.47E-02 (ca)	1.96E-01 (ca)	4.01E-01 (ca)			
Epichlorohydrin (1-Chloro-2,3-Epoxypropane)	106-89-8	4/99[1/92]	1/1/2001		4/1/1999	6.64E-01 (ca)	2.42E+00 (ca)	5.55E+00 (ca)	2.87E-01	7.16E-01	1.79E+00
1,2-Epoxybutane	106-88-7		1/1/2001			7.20E+02 (ch)	2.62E+03 (ch)	6.02E+03 (ch)			

SCAQMD PERMIT APPLICATION PACKAGE “N”

Tables Effective for Applications Deemed Complete On or After October 1, 2017

Table 1.0 – Screening Emission Levels (continued)

Pollutant		Date Toxicity Criteria Last Updated				Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Toxic Air Contaminant	CAS No	Cancer	Chronic	8-hr Chronic	Acute	Emissions at 25 m, lb/yr	Emissions at 50 m, lb/yr	Emissions at 100 m, lb/yr	Emissions at 25 m, lb/hr	Emissions at 50 m, lb/hr	Emissions at 100 m, lb/hr
Ethyl Benzene	100-41-4	11/7/2007	2/1/2000			6.11E+00 (ca)	2.22E+01 (ca)	5.11E+01 (ca)			
Ethyl Chloride (Chloroethane)	75-00-3		4/1/2000			1.08E+06 (ch)	3.93E+06 (ch)	9.03E+06 (ch)			
Ethylene Dibromide (1,2-Dibromoethane)	106-93-4	7/1/1985	12/1/2001			2.13E-01 (ca)	7.74E-01 (ca)	1.78E+00 (ca)			
Ethylene Dichloride (1,2-Dichloroethane)	107-06-2	9/1/1985	1/1/2001			7.38E-01 (ca)	2.69E+00 (ca)	6.17E+00 (ca)			
Ethylene Glycol	107-21-1		4/1/2000			1.44E+04 (ch)	5.24E+04 (ch)	1.20E+05 (ch)			
Ethylene Oxide (1,2-Epoxyethane)	75-21-8	11/1/1987	1/1/2001			1.71E-01 (ca)	6.24E-01 (ca)	1.43E+00 (ca)			
Ethylene Thiourea	96-45-7	4/1/1999				1.18E+00 (ca)	4.30E+00 (ca)	9.87E+00 (ca)			
Flourides	1101		8/14/2003		4/1/1999	8.21E+01 (ch)	2.99E+02 (ch)	6.86E+02 (ch)	5.30E-02	1.32E-01	3.31E-01
Hydrogen Fluoride (Hydrofluoric Acid)	7664-39-3		8/14/2003		4/1/1999	8.31E+01 (ch)	3.03E+02 (ch)	6.95E+02 (ch)	5.30E-02	1.32E-01	3.31E-01
Formaldehyde	50-00-0	3/1/1992	12/19/2008	12/19/2008	12/19/2008	2.53E+00 (ca)	9.22E+00 (ca)	2.12E+01 (ca)	1.21E-02	3.03E-02	7.59E-02
Glutaraldehyde	111-30-8		1/1/2001			2.88E+00 (ch)	1.05E+01 (ch)	2.41E+01 (ch)			
Ethylene Glycol Butyl Ether (EGBE)	111-76-2				4/1/1999				3.09E+00	7.71E+00	1.93E+01
Ethylene Glycol Ethyl Ether (EGEE)	110-80-5		2/1/2000		4/99[1/92]	2.52E+03 (ch)	9.18E+03 (ch)	2.11E+04 (ch)	8.17E-02	2.04E-01	5.11E-01
Ethylene Glycol Ethyl Ether Acetate (EGEEA)	111-15-9		2/1/2000		4/1/1999	1.08E+04 (ch)	3.93E+04 (ch)	9.03E+04 (ch)	3.09E-02	7.71E-02	1.93E-01
Ethylene Glycol Methyl Ether (EGME)	109-86-4		2/1/2000		4/1/1999	2.16E+03 (ch)	7.87E+03 (ch)	1.81E+04 (ch)	2.05E-02	5.12E-02	1.28E-01
Ethylene Glycol Methyl Ether Acetate (EGMEA)	110-49-6		2/1/2000			3.24E+03 (ch)	1.18E+04 (ch)	2.71E+04 (ch)			
Hexachlorobenzene	118-74-1	4/99[1/91]				2.95E-02 (ca)	1.08E-01 (ca)	2.47E-01 (ca)			
Hexachlorocyclohexanes	608-73-1	4/99[1/91]				2.47E-03 (ca)	8.98E-03 (ca)	2.06E-02 (ca)			
Alpha-Hexachlorocyclohexane	319-84-6	4/99[1/91]				2.47E-03 (ca)	8.98E-03 (ca)	2.06E-02 (ca)			
Beta-Hexachlorocyclohexane	319-85-7	4/99[1/91]				2.47E-03 (ca)	8.98E-03 (ca)	2.06E-02 (ca)			
Gamma-Hexachlorocyclohexane (Lindane)	58-89-9	4/1/1999				8.97E-03 (ca)	3.27E-02 (ca)	7.50E-02 (ca)			
N-Hexane	110-54-3		4/1/2000			2.52E+05 (ch)	9.18E+05 (ch)	2.11E+06 (ch)			
Hydrazine	302-01-2	4/99[7/90]	1/1/2001			3.13E-03 (ca)	1.14E-02 (ca)	2.61E-02 (ca)			
Hydrochloric Acid (Hydrogen Chloride)	7647-01-0		2/1/2000		4/1/1999	3.24E+02 (ch)	1.18E+03 (ch)	2.71E+03 (ch)	4.64E-01	1.16E+00	2.90E+00
Hydrogen Sulfide	7783-06-4		4/1/2000		4/99[7/90]	3.60E+02 (ch)	1.31E+03 (ch)	3.01E+03 (ch)	9.28E-03	2.31E-02	5.80E-02
Isophorone	78-59-1		12/1/2001			7.20E+04 (ch)	2.62E+05 (ch)	6.02E+05 (ch)			
Isopropyl Alcohol (Isopropanol)	67-63-0		2/1/2000		4/1/1999	2.52E+05 (ch)	9.18E+05 (ch)	2.11E+06 (ch)	7.07E-01	1.76E+00	4.42E+00
Lead And Compounds (Inorganic)	7439-92-1	4/1/1997				1.11E-01 (ca)	4.04E-01 (ca)	9.27E-01 (ca)			
Lead Acetate	301-04-2	4/1/1997				1.74E-01 (ca)	6.34E-01 (ca)	1.45E+00 (ca)			
Lead Phosphate	7446-27-7	4/1/1997				1.45E-01 (ca)	5.27E-01 (ca)	1.21E+00 (ca)			
Lead Subacetate	1335-32-6	4/1/1997				1.44E-01 (ca)	5.25E-01 (ca)	1.20E+00 (ca)			
Maleic Anhydride	108-31-6		12/1/2001			2.52E+01 (ch)	9.18E+01 (ch)	2.11E+02 (ch)			
Manganese And Compounds	7439-96-5		12/19/2008	12/19/2008		1.46E+00 (8hr)	5.31E+00 (8hr)	1.22E+01 (8hr)			
Mercury And Compounds (Inorganic)	7439-97-6		12/19/2008	12/19/2008	12/19/2008	2.80E-01 (ch)	1.02E+00 (ch)	2.34E+00 (ch)	1.33E-04	3.30E-04	8.28E-04
Mercuric Chloride	7487-94-7		12/19/2008	12/19/2008	12/19/2008	2.80E-01 (ch)	1.02E+00 (ch)	2.34E+00 (ch)	1.33E-04	3.30E-04	8.28E-04

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Table 1.0 – Screening Emission Levels (continued)

Pollutant		Date Toxicity Criteria Last Updated				Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Toxic Air Contaminant	CAS No	Cancer	Chronic	8-hr Chronic	Acute	Emissions at 25 m, lb/yr	Emissions at 50 m, lb/yr	Emissions at 100 m, lb/yr	Emissions at 25 m, lb/hr	Emissions at 50 m, lb/hr	Emissions at 100 m, lb/hr
Methanol	67-56-1		4/1/2000		4/1/1999	1.44E+05 (ch)	5.24E+05 (ch)	1.20E+06 (ch)	6.18E+00	1.54E+01	3.86E+01
Methyl Bromide (Bromomethane)	74-83-9		2/1/2000		4/1/1999	1.80E+02 (ch)	6.56E+02 (ch)	1.50E+03 (ch)	8.61E-01	2.15E+00	5.38E+00
Methyl Tertiary-Butyl Ether	1634-04-4	11/1/1999	2/1/2000			2.95E+01 (ca)	1.08E+02 (ca)	2.47E+02 (ca)			
Methyl Chloroform (1,1,1-Trichloroethane)	71-55-6		2/1/2000		4/1/1999	3.60E+04 (ch)	1.31E+05 (ch)	3.01E+05 (ch)	1.50E+01	3.74E+01	9.38E+01
Methyl Ethyl Ketone (2-Butanone)	78-93-3				4/1/1999				2.87E+00	7.16E+00	1.79E+01
Methyl Isocyanate	624-83-9		12/1/2001			3.60E+01 (ch)	1.31E+02 (ch)	3.01E+02 (ch)			
4,4'-Methylene Bis (2-Chloroaniline) (MOCA)	101-14-4	4/1/1999				3.54E-02 (ca)	1.29E-01 (ca)	2.96E-01 (ca)			
Methylene Chloride (Dichloromethane)	75-09-2	7/1/1989	2/1/2000		4/1/1999	1.52E+01 (ca)	5.53E+01 (ca)	1.27E+02 (ca)	3.09E+00	7.71E+00	1.93E+01
4,4'-Methylene Dianiline (And Its Dichloride)	101-77-9	4/1/1999	12/1/2001			4.60E-03 (ca)	1.68E-02 (ca)	3.85E-02 (ca)			
Methylene Diphenyl Isocyanate	101-68-8		1/1/2001			2.52E+01 (ch)	9.18E+01 (ch)	2.11E+02 (ch)			
Michler's Ketone (4,4'-Bis(Dimethylamino) Benzophenone)	90-94-8	4/1/1999				6.18E-02 (ca)	2.25E-01 (ca)	5.17E-01 (ca)			
N-Nitrosodi-N-Butylamine	924-16-3	4/99[1/92]				4.83E-03 (ca)	1.76E-02 (ca)	4.04E-02 (ca)			
N-Nitrosodi-N-Propylamine	621-64-7	4/99[1/91]				7.59E-03 (ca)	2.77E-02 (ca)	6.35E-02 (ca)			
N-Nitrosodiethylamine	55-18-5	4/99[1/91]				1.48E-03 (ca)	5.38E-03 (ca)	1.23E-02 (ca)			
N-Nitrosodimethylamine	62-75-9	4/99[1/91]				3.32E-03 (ca)	1.21E-02 (ca)	2.78E-02 (ca)			
N-Nitrosodiphenylamine	86-30-6	4/1/1999				5.91E+00 (ca)	2.15E+01 (ca)	4.94E+01 (ca)			
N-Nitroso-N-Methylethylamine	10595-95-6	4/99[7/90]				2.42E-03 (ca)	8.80E-03 (ca)	2.02E-02 (ca)			
N-Nitrosomorpholine	59-89-2	4/99[7/92]				7.93E-03 (ca)	2.89E-02 (ca)	6.63E-02 (ca)			
N-Nitrosopiperidine	100-75-4	4/99[7/92]				5.65E-03 (ca)	2.06E-02 (ca)	4.73E-02 (ca)			
N-Nitrosopyrrolidine	930-55-2	4/99[7/90]				2.53E-02 (ca)	9.22E-02 (ca)	2.12E-01 (ca)			
Nickel And Compounds	7440-02-0	8/1/1991	3/23/2012	3/23/2012	3/23/2012	5.84E-02 (ca)	2.13E-01 (ca)	4.88E-01 (ca)	4.42E-05	1.10E-04	2.76E-04
Nickel Acetate	373-02-4	8/1/1991	3/23/2012	3/23/2012	3/23/2012	1.76E-01 (ca)	6.40E-01 (ca)	1.47E+00 (ca)	1.33E-04	3.32E-04	8.31E-04
Nickel Carbonate	3333-67-3	8/1/1991	3/23/2012	3/23/2012	3/23/2012	1.18E-01 (ca)	4.30E-01 (ca)	9.87E-01 (ca)	8.93E-05	2.23E-04	5.58E-04
Nickel Carbonyl	13463-39-3	8/1/1991	3/23/2012	3/23/2012	3/23/2012	1.70E-01 (ca)	6.19E-01 (ca)	1.42E+00 (ca)	1.28E-04	3.20E-04	8.03E-04
Nickel Hydroxide	12054-48-7	8/1/1991	3/23/2012	3/23/2012	3/23/2012	9.22E-02 (ca)	3.36E-01 (ca)	7.71E-01 (ca)	6.98E-05	1.74E-04	4.36E-04
Nickelocene	1271-28-9	8/1/1991	3/23/2012	3/23/2012	3/23/2012	1.18E-01 (ca)	4.31E-01 (ca)	9.89E-01 (ca)	8.95E-05	2.23E-04	5.59E-04
Nickel Oxide	1313-99-1	8/1/1991	3/23/2012	3/23/2012	3/23/2012	7.43E-02 (ca)	2.71E-01 (ca)	6.21E-01 (ca)	5.62E-05	1.40E-04	3.51E-04
Nickel Refinery Dust From The Pyrometallurgical Process	0	8/1/1991	3/23/2012	3/23/2012	3/23/2012	5.84E-02 (ca)	2.13E-01 (ca)	4.88E-01 (ca)	4.42E-05	1.10E-04	2.76E-04
Nickel Subsulfide	12035-72-2	8/1/1991	3/23/2012	3/23/2012	3/23/2012	2.39E-01 (ca)	8.71E-01 (ca)	2.00E+00 (ca)	1.81E-04	4.51E-04	1.13E-03
Nitric Acid	7697-37-2				4/1/1999				1.90E-02	4.74E-02	1.19E-01
P-Nitrosodiphenylamine	156-10-5	4/1/1999				2.42E+00 (ca)	8.80E+00 (ca)	2.02E+01 (ca)			
Particulate Emissions From Diesel-Fueled Engines	9901	8/1/1998	8/1/1998			4.83E-02 (ca)	1.76E-01 (ca)	4.04E-01 (ca)			
Perchloroethylene (Tetrachloroethylene)	127-18-4	10/1/1991	10/1/1991		4/1/1999	2.53E+00 (ca)	9.22E+00 (ca)	2.12E+01 (ca)	4.42E+00	1.10E+01	2.76E+01
Phenol	108-95-2		4/1/2000		4/1/1999	7.20E+03 (ch)	2.62E+04 (ch)	6.02E+04 (ch)	1.28E+00	3.19E+00	8.00E+00
Phosgene	75-44-5				4/1/1999				8.83E-04	2.20E-03	5.52E-03

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Table 1.0 – Screening Emission Levels (continued)

Pollutant		Date Toxicity Criteria Last Updated				Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Toxic Air Contaminant	CAS No	Cancer	Chronic	8-hr Chronic	Acute	Emissions at 25 m, lb/yr	Emissions at 50 m, lb/yr	Emissions at 100 m, lb/yr	Emissions at 25 m, lb/hr	Emissions at 50 m, lb/hr	Emissions at 100 m, lb/hr
Phosphine	7803-51-2		9/3/2002			2.88E+01 (ch)	1.05E+02 (ch)	2.41E+02 (ch)			
Phosphoric Acid	7664-38-2		2/1/2000			2.52E+02 (ch)	9.18E+02 (ch)	2.11E+03 (ch)			
Phthalic Anhydride	85-44-9		1/1/2001			7.20E+02 (ch)	2.62E+03 (ch)	6.02E+03 (ch)			
PCB (Polychlorinated Biphenyls) (Unspeciated Mixture) [Lowest Risk]	1336-36-3	4/1/1999				4.01E-02 (ca)	1.46E-01 (ca)	3.35E-01 (ca)			
PCB (Polychlorinated Biphenyls) (Unspeciated Mixture) [Low Risk]	1336-36-3	4/1/1999				7.02E-03 (ca)	2.55E-02 (ca)	5.87E-02 (ca)			
PCB (Polychlorinated Biphenyls) (Unspeciated Mixture) [High Risk]	1336-36-3	4/1/1999				1.40E-03 (ca)	5.11E-03 (ca)	1.17E-02 (ca)			
3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	32598-13-3	8/29/2003	8/29/2003			1.48E-04 (ca)	5.40E-04 (ca)	1.24E-03 (ca)			
3,4,4',5'-Tetrachlorobiphenyl (PCB 81)	70362-50-4	1/31/2011	1/31/2011			4.94E-05 (ca)	1.80E-04 (ca)	4.13E-04 (ca)			
2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	32598-14-4	1/31/2011	1/31/2011			4.94E-04 (ca)	1.80E-03 (ca)	4.13E-03 (ca)			
2,3,4,4',5'-Pentachlorobiphenyl (PCB 114)	74472-37-0	1/31/2011	1/31/2011			4.94E-04 (ca)	1.80E-03 (ca)	4.13E-03 (ca)			
2,3',4,4',5'-Pentachlorobiphenyl (PCB 118)	31508-00-6	1/31/2011	1/31/2011			4.94E-04 (ca)	1.80E-03 (ca)	4.13E-03 (ca)			
2,3',4,4',5'-Pentachlorobiphenyl (PCB 123)	65510-44-3	1/31/2011	1/31/2011			4.94E-04 (ca)	1.80E-03 (ca)	4.13E-03 (ca)			
3,3',4,4',5'-Pentachlorobiphenyl (PCB 126)	57465-28-8	8/29/2003	8/29/2003			1.48E-07 (ca)	5.40E-07 (ca)	1.24E-06 (ca)			
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 156)	38380-08-4	1/31/2011	1/31/2011			4.94E-04 (ca)	1.80E-03 (ca)	4.13E-03 (ca)			
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	69782-90-7	1/31/2011	1/31/2011			4.94E-04 (ca)	1.80E-03 (ca)	4.13E-03 (ca)			
2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167)	52663-72-6	1/31/2011	1/31/2011			4.94E-04 (ca)	1.80E-03 (ca)	4.13E-03 (ca)			
3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	32774-16-6	1/31/2011	1/31/2011			4.94E-07 (ca)	1.80E-06 (ca)	4.13E-06 (ca)			
2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	39635-31-9	1/31/2011	1/31/2011			4.94E-04 (ca)	1.80E-03 (ca)	4.13E-03 (ca)			
Polychlorinated Dibenzop-Dioxins (PCDD)	1086	8/1/1986	2/1/2000			1.59E-08 (ca)	5.79E-08 (ca)	1.33E-07 (ca)			
2,3,7,8-Tetrachlorodibenzo-P-Dioxin	1746-01-6	8/1/1986	2/1/2000			1.59E-08 (ca)	5.79E-08 (ca)	1.33E-07 (ca)			
1,2,3,7,8-Pentachlorodibenzo-P-Dioxin	40321-76-4	8/1/2003	8/1/2003			1.59E-08 (ca)	5.79E-08 (ca)	1.33E-07 (ca)			
1,2,3,4,7,8-Hexachlorodibenzo-P-Dioxin	39227-28-6	4/1/1999	2/1/2000			1.59E-07 (ca)	5.79E-07 (ca)	1.33E-06 (ca)			
1,2,3,6,7,8-Hexachlorodibenzo-P-Dioxin	57653-85-7	4/1/1999	2/1/2000			1.59E-07 (ca)	5.79E-07 (ca)	1.33E-06 (ca)			
1,2,3,7,8,9-Hexachlorodibenzo-P-Dioxin	19408-74-3	4/1/1999	2/1/2000			1.59E-07 (ca)	5.79E-07 (ca)	1.33E-06 (ca)			
1,2,3,4,6,7,8-Heptachlorodibenzo-P-Dioxin	35822-46-9	4/1/1999	2/1/2000			1.59E-06 (ca)	5.79E-06 (ca)	1.33E-05 (ca)			
1,2,3,4,6,7,8,9-Octachlorodibenzo-P-Dioxin	3268-87-9	1/31/2011	1/31/2011			5.30E-05 (ca)	1.93E-04 (ca)	4.43E-04 (ca)			
Polychlorinated Dibenzofurans (PCDF)	1080	8/1/1986	2/1/2000			2.25E-08 (ca)	8.19E-08 (ca)	1.88E-07 (ca)			
2,3,7,8-Tetrachlorodibenzofuran	5120-73-19	4/1/1999	2/1/2000			2.25E-07 (ca)	8.19E-07 (ca)	1.88E-06 (ca)			
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	1/31/2011	1/31/2011			7.49E-07 (ca)	2.73E-06 (ca)	6.26E-06 (ca)			

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Table 1.0 – Screening Emission Levels (continued)

Pollutant		Date Toxicity Criteria Last Updated				Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Toxic Air Contaminant	CAS No	Cancer	Chronic	8-hr Chronic	Acute	Emissions at 25 m, lb/yr	Emissions at 50 m, lb/yr	Emissions at 100 m, lb/yr	Emissions at 25 m, lb/hr	Emissions at 50 m, lb/hr	Emissions at 100 m, lb/hr
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	1/31/2011	1/31/2011			7.49E-08 (ca)	2.73E-07 (ca)	6.26E-07 (ca)			
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	4/1/1999	2/1/2000			2.25E-07 (ca)	8.19E-07 (ca)	1.88E-06 (ca)			
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	4/1/1999	2/1/2000			2.25E-07 (ca)	8.19E-07 (ca)	1.88E-06 (ca)			
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	4/1/1999	2/1/2000			2.25E-07 (ca)	8.19E-07 (ca)	1.88E-06 (ca)			
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	4/1/1999	2/1/2000			2.25E-07 (ca)	8.19E-07 (ca)	1.88E-06 (ca)			
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	4/1/1999	2/1/2000			2.25E-06 (ca)	8.19E-06 (ca)	1.88E-05 (ca)			
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	4/1/1999	2/1/2000			2.25E-06 (ca)	8.19E-06 (ca)	1.88E-05 (ca)			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	1/31/2011	1/31/2011			7.49E-05 (ca)	2.73E-04 (ca)	6.26E-04 (ca)			
Polycyclic Aromatic Hydrocarbon (PAH)	1150	4/99[4/94]				1.45E-02 (ca)	4.41E-02 (ca)	9.00E-02 (ca)			
Benz(A)Anthracene	56-55-3	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
Benzo(A)Pyrene	50-32-8	4/99[4/94]				5.89E-04 (ca)	2.15E-03 (ca)	4.93E-03 (ca)			
Benzo(B)Fluoranthene	205-99-2	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
Benzo(J)Fluoranthene	205-82-3	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
Benzo(K)Fluoranthene	207-08-9	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
Chrysene	218-01-9	4/99[4/94]				5.89E-02 (ca)	2.15E-01 (ca)	4.93E-01 (ca)			
Dibenz(A,H)Acridine	226-36-8	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
Dibenz(A,H)Anthracene	53-70-3	4/99[4/94]				1.62E-03 (ca)	5.91E-03 (ca)	1.36E-02 (ca)			
Dibenz(A,J)Acridine	224-42-0	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
Dibenzo(A,E)Pyrene	192-65-4	4/99[4/94]				5.89E-04 (ca)	2.15E-03 (ca)	4.93E-03 (ca)			
Dibenzo(A,H)Pyrene	189-64-0	4/99[4/94]				5.89E-05 (ca)	2.15E-04 (ca)	4.93E-04 (ca)			
Dibenzo(A,I)Pyrene	189-55-9	4/99[4/94]				5.89E-05 (ca)	2.15E-04 (ca)	4.93E-04 (ca)			
Dibenzo(A,L)Pyrene	191-30-0	4/99[4/94]				5.89E-05 (ca)	2.15E-04 (ca)	4.93E-04 (ca)			
7H-Dibenzo(C,G)Carbazole	194-59-2	4/99[4/94]				5.89E-04 (ca)	2.15E-03 (ca)	4.93E-03 (ca)			
7,12-Dimethylbenz(A)Anthracene	57-97-6	4/99[4/94]				2.66E-05 (ca)	9.69E-05 (ca)	2.22E-04 (ca)			
1,6-Dinitropyrene	42397-64-8	4/99[4/94]				5.89E-05 (ca)	2.15E-04 (ca)	4.93E-04 (ca)			
1,8-Dinitropyrene	42397-65-9	4/99[4/94]				5.89E-04 (ca)	2.15E-03 (ca)	4.93E-03 (ca)			
Indeno(1,2,3-C,D)Pyrene	193-39-5	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
3-Methylcholanthrene	56-49-5	4/99[4/94]				3.02E-04 (ca)	1.10E-03 (ca)	2.53E-03 (ca)			
5-Methylchrysene	3697-24-3	4/99[4/94]				5.89E-04 (ca)	2.15E-03 (ca)	4.93E-03 (ca)			
Naphthalene	91-20-3	8/4/2004	4/1/2000			4.43E-01 (ca)	1.61E+00 (ca)	3.70E+00 (ca)			
5-Nitroacenaphthene	602-87-9	4/99[4/94]				5.12E-02 (ca)	1.86E-01 (ca)	4.28E-01 (ca)			
6-Nitrochrysene	7496-02-8	4/99[4/94]				5.89E-05 (ca)	2.15E-04 (ca)	4.93E-04 (ca)			
2-Nitrofluorene	607-57-8	4/99[4/94]				5.89E-02 (ca)	2.15E-01 (ca)	4.93E-01 (ca)			
1-Nitropyrene	5522-43-0	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
4-Nitropyrene	57835-92-4	4/99[4/94]				5.89E-03 (ca)	2.15E-02 (ca)	4.93E-02 (ca)			
1,3-Propane Sultone	1120-71-4	4/1/1999				2.21E-02 (ca)	8.06E-02 (ca)	1.85E-01 (ca)			

SCAQMD PERMIT APPLICATION PACKAGE “N”

Tables Effective for Applications Deemed Complete On or After October 1, 2017

Table 1.0 – Screening Emission Levels (continued)

Pollutant		Date Toxicity Criteria Last Updated				Annual Pollutant Screening Level			Hourly Pollutant Screening Level		
Toxic Air Contaminant	CAS No	Cancer	Chronic	8-hr Chronic	Acute	Emissions at 25 m, lb/yr	Emissions at 50 m, lb/yr	Emissions at 100 m, lb/yr	Emissions at 25 m, lb/hr	Emissions at 50 m, lb/hr	Emissions at 100 m, lb/hr
Propylene (Propene)	115-07-1		4/1/2000			1.08E+05 (ch)	3.93E+05 (ch)	9.03E+05 (ch)			
Propylene Glycol Monomethyl Ether	107-98-2		2/1/2000			2.52E+05 (ch)	9.18E+05 (ch)	2.11E+06 (ch)			
Propylene Oxide	75-56-9	4/99[7/90]	2/1/2000		4/1/1999	4.09E+00 (ca)	1.49E+01 (ca)	3.42E+01 (ca)	6.85E-01	1.71E+00	4.28E+00
Selenium And Compounds	7782-49-2		12/1/2001			3.68E+00 (ch)	1.34E+01 (ch)	3.08E+01 (ch)			
Hydrogen Selenide	7783-07-5				4/1/1999				1.10E-03	2.75E-03	6.90E-03
Selenium Sulfide	7446-34-6		12/1/2001			3.68E+00 (ch)	1.34E+01 (ch)	3.08E+01 (ch)			
Sodium Hydroxide	1310-73-2				4/1/1999				1.77E-03	4.40E-03	1.10E-02
Styrene	100-42-5		4/1/2000		4/1/1999	3.24E+04 (ch)	1.18E+05 (ch)	2.71E+05 (ch)	2.65E-02	6.61E-02	1.66E-01
Sulfuric Acid (Sulfur Trioxide)	7446-71-9		12/1/2008		4/1/1999	3.60E+01 (ch)	1.31E+02 (ch)	3.01E+02 (ch)	2.65E-02	6.61E-02	1.66E-01
Sulfuric Acid (Oleum)	8014-95-7				4/1/1999				2.65E-02	6.61E-02	1.66E-01
1,1,2,2-Tetrachloroethane	79-34-5	4/1/1999				2.66E-01 (ca)	9.68E-01 (ca)	2.22E+00 (ca)			
Thioacetamide	62-55-5	4/1/1999				8.71E-03 (ca)	3.17E-02 (ca)	7.28E-02 (ca)			
Toluene	108-88-3		4/1/2000		4/1/1999	1.08E+04 (ch)	3.93E+04 (ch)	9.03E+04 (ch)	8.17E+00	2.04E+01	5.11E+01
Toluene Diisocyanates	26471-62-5	4/1/1999	1/1/2001			1.36E+00 (ca)	4.96E+00 (ca)	1.14E+01 (ca)			
Toluene-2,4-Diisocyanate	584-84-9	4/1/1999	1/1/2001	3/30/2016	3/30/2016	1.29E-01 (8hr)	4.68E-01 (8hr)	1.07E+00 (8hr)	4.42E-04	1.10E-03	2.76E-03
Toluene-2,6-Diisocyanate	91-08-7	4/1/1999	1/1/2001	3/30/2016	3/30/2016	1.29E-01 (8hr)	4.68E-01 (8hr)	1.07E+00 (8hr)	4.42E-04	1.10E-03	2.76E-03
1,1,2-Trichloroethane (Vinyl Trichloride)	79-00-5	4/1/1999				9.32E-01 (ca)	3.40E+00 (ca)	7.79E+00 (ca)			
Trichloroethylene	79-01-6	10/1/1990	4/1/2000			7.59E+00 (ca)	2.77E+01 (ca)	6.35E+01 (ca)			
Triethylamine	121-44-8		9/3/2002		4/1/1999	7.20E+03 (ch)	2.62E+04 (ch)	6.02E+04 (ch)	6.18E-01	1.54E+00	3.86E+00
Urethane (Ethyl Carbamate)	51-79-6	4/99[7/90]				5.31E-02 (ca)	1.94E-01 (ca)	4.44E-01 (ca)			
Vanadium (Fume Or Dust)	7440-62-2				4/1/1999				6.63E-03	1.65E-02	4.14E-02
Vanadium Pentoxide	1314-62-1				4/1/1999				6.63E-03	1.65E-02	4.14E-02
Vinyl Acetate	108-05-4		12/1/2001			7.20E+03 (ch)	2.62E+04 (ch)	6.02E+04 (ch)			
Vinyl Chloride (Chloroethylene)	75-01-4	12/1/1990			4/1/1999	1.97E-01 (ca)	7.17E-01 (ca)	1.65E+00 (ca)	3.98E+01	9.91E+01	2.48E+02
Vinylidene Chloride (1,1-Dichloroethylene)	75-35-4		1/1/2001			2.52E+03 (ch)	9.18E+03 (ch)	2.11E+04 (ch)			
Xylenes (Mixed Isomers)	1330-20-7		4/1/2000		4/1/1999	2.52E+04 (ch)	9.18E+04 (ch)	2.11E+05 (ch)	4.86E+00	1.21E+01	3.04E+01
M-Xylene	108-38-3		4/1/2000		4/1/1999	2.52E+04 (ch)	9.18E+04 (ch)	2.11E+05 (ch)	4.86E+00	1.21E+01	3.04E+01
O-Xylene	95-47-6		4/1/2000		4/1/1999	2.52E+04 (ch)	9.18E+04 (ch)	2.11E+05 (ch)	4.86E+00	1.21E+01	3.04E+01
P-Xylene	106-42-3		4/1/2000		4/1/1999	2.52E+04 (ch)	9.18E+04 (ch)	2.11E+05 (ch)	4.86E+00	1.21E+01	3.04E+01

Table 2.0 – References for CP, RELs, MWAF, and Target Organs Affected by TACs

For the most recent information on Cancer Potency (CP), Reference Exposure Levels (REL), and Molecular Weight Adjustment Factors (MWAF), please refer to the Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values, which can be found on CARB’s website at <https://www.arb.ca.gov/toxics/healthval/contable.pdf>.

For the most recent information on target organs affected by TACs for non-cancer chronic and acute HI calculations, please refer to the Target Organs Tables, which can be found on CARB’s website at <https://www.arb.ca.gov/toxics/healthval/totables.pdf>.

Table 3.0 – MP Adjustment Factors

MP Adjustment Factors – Cancer	Table 3.1
MP Adjustment Factors – Chronic	Table 3.2

SCAQMD PERMIT APPLICATION PACKAGE “N”
Tables Effective for Applications Deemed Complete On or After October 1, 2017

Table 3.1 - MP Adjustment Factors - Cancer

Toxic Air Contaminant	CAS No.	Cancer MP Ratio							
		30 Year		9 Year		5 Year		2 Year	
		Res	Work	Res	Work	Res	Work	Res	Work
Arsenic and Compounds (Inorganic)	7440-38-2	9.71	4.52	12.68	4.33	12.52	4.33	12.33	4.33
Chromium 6+	18540-299	1.60	1.02	1.78	1.02	1.75	1.02	1.73	1.02
Barium Chromate	10294-40-3	1.60	1.02	1.78	1.02	1.75	1.02	1.73	1.02
Calcium Chromate	13765-19-0	1.60	1.02	1.78	1.02	1.75	1.02	1.73	1.02
Lead Chromate	7758-97-6	1.60	1.02	1.78	1.02	1.75	1.02	1.73	1.02
Sodium Dichromate	10588-01-9	1.60	1.02	1.78	1.02	1.75	1.02	1.73	1.02
Strontium Chromate	7789-06-2	1.60	1.02	1.78	1.02	1.75	1.02	1.73	1.02
Chromic Trioxide (as Chromic Acid Mist)	1333-82-0	1.60	1.02	1.78	1.02	1.75	1.02	1.73	1.02
Di(2-Ethylhexyl)Phthalate (DEHP)	117-81-7	5.22	1.05	7.12	1.05	6.88	1.05	6.59	1.05
Hexachlorocyclohexanes	608-73-1	5.39	1.25	7.33	1.24	7.11	1.24	6.85	1.24
Alpha-Hexachlorocyclohexane	319-84-6	5.39	1.25	7.33	1.24	7.11	1.24	6.85	1.24
Beta-Hexachlorocyclohexane	319-85-7	5.39	1.25	7.33	1.24	7.11	1.24	6.85	1.24
Gamma-Hexachlorocyclohexane (Lindane)	58-89-9	5.39	1.25	7.33	1.24	7.11	1.24	6.85	1.24
Lead and Compounds (Inorganic)	7439-92-1	11.41	5.83	14.81	5.62	15.11	5.62	15.22	5.63
Lead and Compounds (Inorganic)	7439-92-1	11.41	5.83	14.81	5.62	15.11	5.62	15.22	5.63
Lead Acetate	301-04-2	11.41	5.83	14.81	5.62	15.11	5.62	15.22	5.63
Lead Phosphate	7446-27-7	11.41	5.83	14.81	5.62	15.12	5.62	15.22	5.62
Lead Subacetate	1335-32-6	11.41	5.83	14.81	5.62	15.11	5.62	15.22	5.62
4,4'-Methylene Dianiline (and its Dichloride)	101-77-9	7.22	2.47	9.79	2.41	9.52	2.41	9.20	2.41
PCB (Polychlorinated Biphenyls)	1336-36-3	18.94	13.12	24.80	12.57	24.55	12.57	24.25	12.57
3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	32598-13-3	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
3,4,4',5'-Tetrachlorobiphenyl (PCB 81)	70362-50-4	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	32598-14-4	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
2,3,4,4',5'-Pentachlorobiphenyl (PCB 114)	74472-37-0	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
2,3',4,4',5'-Pentachlorobiphenyl (PCB 118)	31508-00-6	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
2,3',4,4',5'-Pentachlorobiphenyl (PCB 123)	65510-44-3	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
3,3',4,4',5'-Pentachlorobiphenyl (PCB 126)	57465-28-8	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 156)	38380-08-4	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	69782-90-7	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167)	52663-72-6	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	32774-16-6	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	39635-31-9	27.57	13.12	24.80	12.57	40.63	12.57	45.53	12.57
Polychlorinated Dibenzo-p-Dioxins (PCDD)	1086	25.72	7.58	16.00	7.27	39.91	7.27	46.38	7.27
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	1746-01-6	25.72	7.58	16.00	7.27	39.91	7.27	46.38	7.27
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	25.72	7.58	16.00	7.27	39.91	7.27	46.38	7.27
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	25.72	7.58	16.00	7.27	39.91	7.27	46.38	7.27
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	25.72	7.58	16.00	7.27	39.91	7.27	46.38	7.27
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	25.72	7.58	16.00	7.27	39.91	7.27	46.38	7.27
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	25.72	7.58	16.00	7.27	39.91	7.27	46.38	7.27
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-Dioxin	3268-87-9	25.72	7.58	16.00	7.27	39.91	7.27	46.38	7.27
Polychlorinated Dibenzofurans (PCDF)	1080	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
2,3,7,8-Tetrachlorodibenzofuran	5120-73-19	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27

SCAQMD PERMIT APPLICATION PACKAGE “N”
Tables Effective for Applications Deemed Complete On or After October 1, 2017

Table 3.1 – MP Adjustment Factors – Cancer (continued)

Toxic Air Contaminant	CAS No.	Cancer MP Ratio							
		30 Year		9 Year		5 Year		2 Year	
		Res	Work	Res	Work	Res	Work	Res	Work
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	18.19	7.58	16.00	7.27	26.80	7.27	29.99	7.27
Polycyclic Aromatic Hydrocarbon (PAH)	1151	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Benzo(a)Anthracene	56-55-3	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Benzo(a)Pyrene	50-32-8	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Benzo(b)Fluoranthene	205-99-2	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Benzo(j)Fluoranthene	205-82-3	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Benzo(k)Fluoranthene	207-08-9	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Chrysene	218-01-9	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Dibenz(a,h)Acridine	226-36-8	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Dibenz(a,h)Anthracene	53-70-3	7.99	2.48	9.64	2.42	11.40	2.42	12.04	2.42
Dibenz(a,j)Acridine	224-42-0	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Dibenzo(a,e)Pyrene	192-65-4	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Dibenzo(a,h)Pyrene	189-64-0	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Dibenzo(a,i)Pyrene	189-55-9	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Dibenzo(a,l)Pyrene	191-30-0	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
7H-Dibenzo(c,g)Carbazole	194-59-2	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
7,12-Dimethylbenz(a) Anthracene	57-97-6	7.99	2.48	9.64	2.42	11.40	2.42	12.04	2.42
1,6-Dinitropyrene	42397-64-8	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
1,8-Dinitropyrene	42397-65-9	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
Indeno(1,2,3-c,d)Pyrene	193-39-5	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
3-Methylcholanthrene	56-49-5	7.99	2.48	9.64	2.42	11.40	2.42	12.04	2.42
5-Methylchrysene	3697-24-3	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
5-Nitroacenaphthene	602-87-9	7.99	2.49	9.64	2.42	11.40	2.42	12.04	2.42
6-Nitrochrysene	7496-02-8	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
2-Nitrofluorene	607-57-8	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
1-Nitropyrene	5522-43-0	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34
4-Nitropyrene	57835-92-4	23.12	6.62	28.21	6.34	33.72	6.34	35.81	6.34

Table 3.2 – MP Adjustment Factors - Chronic

Toxic Air Contaminant	CAS No.	Chronic MP Ratio	
		Residential	Worker
Arsenic and Compounds (Inorganic)	7440-38-2	88.03	28.37
Cadmium and Compounds	7440-43-9	1.98	1.20
Chromium 6+	18540-299	2.44	1.00
Barium Chromate	10294-40-3	2.44	1.00
Calcium Chromate	13765-19-0	2.44	1.00
Lead Chromate	7758-97-6	2.44	1.00
Sodium Dichromate	10588-01-9	2.44	1.00
Strontium Chromate	7789-06-2	2.44	1.00
Fluorides	1101	5.70	2.85
Hydrogen Fluoride (Hydrofluoric Acid)	7664-39-3	6.06	2.99
Mercury and Compounds (Inorganic)	7439-97-6	3.86	2.11
Mercuric Chloride	7487-94-7	3.86	2.11
3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	32598-13-3	243.90	10.82
3,4,4',5'-Tetrachlorobiphenyl (PCB 81)	70362-50-4	240.21	10.67
2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	32598-14-4	240.21	10.67
2,3,4,4',5'-Pentachlorobiphenyl (PCB 114)	74472-37-0	240.21	10.67
2,3',4,4',5'-Pentachlorobiphenyl (PCB 118)	31508-00-6	240.21	10.67
2,3',4,4',5'-Pentachlorobiphenyl (PCB 123)	65510-44-3	240.21	10.67
3,3',4,4',5'-Pentachlorobiphenyl (PCB 126)	57465-28-8	243.90	10.82
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 156)	38380-08-4	240.21	10.67
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	69782-90-7	240.21	10.67
2,3',4,4',5',5'-Hexachlorobiphenyl (PCB 167)	52663-72-6	240.21	10.67
3,3',4,4',5',5'-Hexachlorobiphenyl (PCB 169)	32774-16-6	240.21	10.67
2,3,3',4,4',5',5'-Heptachlorobiphenyl (PCB 189)	39635-31-9	240.21	10.67
Polychlorinated Dibenzo-p-Dioxins (PCDD)	1086	307.60	6.73
2,3,7,8-Tetrachlorodibenzo-p-Dioxin	1746-01-6	307.60	6.73
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	40321-76-4	307.60	6.73
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	39227-28-6	307.60	6.73
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	57653-85-7	307.60	6.73
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	19408-74-3	307.60	6.73
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	35822-46-9	307.60	6.73
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-Dioxin	3268-87-9	302.95	6.64
Polychlorinated Dibenzofurans (PCDF)	1080	154.97	6.73
2,3,7,8-Tetrachlorodibenzofuran	5120-73-19	154.97	6.73
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	152.63	6.64
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	152.63	6.64
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	154.97	6.73
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	154.97	6.73
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	154.97	6.73
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	154.97	6.73
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4	154.97	6.73
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7	154.97	6.73

Table 3.2 – MP Adjustment Factors – Chronic (continued)

Toxic Air Contaminant	CAS No.	Chronic MP Ratio	
		Residential	Worker
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0	152.63	6.64
Selenium and Compounds	7782-49-2	195.58	23.71
Selenium Sulfide	7446-34-6	195.58	23.71

Table 4.0 - CEF

Receptor	Exposure Duration (years)	CEF Tables
Residential	2	Table 4.1 A
	5	Table 4.1 B
	9	Table 4.1 C
	30	Table 4.1 D
	70	Table 4.1 E
Worker	2	Table 4.2 A
	5	Table 4.2 B
	9	Table 4.2 C
	25	Table 4.2 D

Table 4.1 A – CEF for 2 Years

Residential

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (350 days/year)	CEFR
-0.25 to 0	361	10	0.25	1	0.96	311.35
0 to 2	1,090	10	2	1	0.96	

Table 4.1 B – CEF for 5 Years

Residential

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (350 days/year)	CEFR
-0.25 to 0	361	10	0.25	1	0.96	389.23
0 to 2	1,090	10	2	1	0.96	
2 to 5	631	3	3	1	0.96	

Table 4.1 C – CEF for 9 Years

Residential

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (350 days/year)	CEFR
-0.25 to 0	361	10	0.25	1	0.96	493.08
0 to 2	1,090	10	2	1	0.96	
2 to 9	631	3	7	1	0.96	

Table 4.1 D – CEF for 30 Years

Residential

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (350 days/year)	CEFR
-0.25 to 0	361	10	0.25	1	0.96	677.4
0 to 2	1,090	10	2	1	0.96	
2 to 16	572	3	14	1	0.96	
16 to 30	261	1	14	0.73	0.96	

Table 4.1 E – CEF for 70 Years

Residential

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (350 days/year)	CEFR
-0.25 to 0	361	10	0.25	1	0.96	766.78
0 to 2	1,090	10	2	1	0.96	
2 to 16	572	3	14	1	0.96	
16 to 70	233	1	54	0.73	0.96	

Table 4.2 A – CEF for 2 Years

Worker

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (250 days/year)	CEFW
16 - 41	230	1	2	0.68	4.47

Table 4.2 B – CEF for 5 Years

Worker

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (250 days/year)	CEFW
16 - 41	230	1	5	0.68	11.17

Table 4.2 C – CEF for 9 Years

Worker

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (250 days/year)	CEFW
16 - 41	230	1	9	0.68	20.1

Table 4.2 D – CEF for 25 Years

Worker

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (250 days/year)	CEFW
16 - 41	230	1	25	0.68	55.86

Table 5.0 – WAF

Operating 12 Hours Per Day or Less	Table 5.1
Operating More Than 12 Hours Per Day	Table 5.2

Table 5.1 – WAF Operating 12 Hours Per Day or Less

Hours of Operation Per Day	Days of Operation Per Week						
	1	2	3	4	5	6	7
1	4.2	4.2	4.2	4.2	4.2	3.5	3.0
2	4.2	4.2	4.2	4.2	4.2	3.5	3.0
3	4.2	4.2	4.2	4.2	4.2	3.5	3.0
4	4.2	4.2	4.2	4.2	4.2	3.5	3.0
5	4.2	4.2	4.2	4.2	4.2	3.5	3.0
6	4.2	4.2	4.2	4.2	4.2	3.5	3.0
7	4.2	4.2	4.2	4.2	4.2	3.5	3.0
8	4.2	4.2	4.2	4.2	4.2	3.5	3.0
9	3.7	3.7	3.7	3.7	3.7	3.1	2.7
10	3.4	3.4	3.4	3.4	3.4	2.8	2.4
11	3.1	3.1	3.1	3.1	3.1	2.5	2.2
12	2.8	2.8	2.8	2.8	2.8	2.3	2.0

Note: The WAF value for residential/sensitive receptors is 1.0, which assumes exposure of 24 hours/day, 7 days/week

Table 5.2 – WAF Operating More Than 12 Hours Per Day

Hours of Operation Per Day	Days of Operation Per Week						
	1	2	3	4	5	6	7
13	2.6	2.6	2.6	2.6	2.6	2.2	1.8
14	2.4	2.4	2.4	2.4	2.4	2	1.7
15	2.2	2.2	2.2	2.2	2.2	1.9	1.6
16	2.1	2.1	2.1	2.1	2.1	1.8	1.5
17	2.0	2.0	2.0	2.0	2.0	1.6	1.4
18	1.9	1.9	1.9	1.9	1.9	1.6	1.3
19	1.8	1.8	1.8	1.8	1.8	1.5	1.3
20	1.7	1.7	1.7	1.7	1.7	1.4	1.2
21	1.6	1.6	1.6	1.6	1.6	1.3	1.1
22	1.5	1.5	1.5	1.5	1.5	1.3	1.1
23	1.5	1.5	1.5	1.5	1.5	1.2	1.0
24	1.4	1.4	1.4	1.4	1.4	1.2	1.0

Note: The WAF value for residential/sensitive receptors is 1.0, which assumes exposure of 24 hours/day, 7 days/week

Table 6.0 – χ/Q for General Non-Combustion Point Source Equipment

Equipment Type	Stack Height (ft)	Cancer, Chronic, Chronic 8 Hr χ/Q Tables		Acute χ/Q Table	Source ID
		≤ 12 hr/day	> 12 hr/day		
General Non-Combustion Point Source Equipment	$14 \leq$ Stack Height < 25	Table 6.1 A	Table 6.1 B	Table 6.4	P1
	$25 \leq$ Stack Height < 50	Table 6.2 A	Table 6.2 B		P2
	Stack Height ≥ 50	Table 6.3 A	Table 6.3 B		P3

Table 6.1 A – χ/Q for General Non-Combustion Point Source Equipment

14 ft ≤ Stack Height < 25 ft*

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	44.54	8.83	4.31	2.39	0.44	0.15	0.05	0.01
BNAP	Banning	38.88	9.15	4.83	2.86	0.65	0.24	0.08	0.02
CELA	Central L.A.	39.03	8.06	3.86	2.15	0.42	0.14	0.05	0.01
ELSI	Lake Elsinore	31.08	6.78	3.28	1.80	0.36	0.12	0.04	0.01
FONT	Fontana	45.12	9.39	4.72	2.68	0.54	0.19	0.06	0.01
MSVJ	Mission Viejo	32.09	7.04	3.47	1.93	0.36	0.13	0.04	0.01
PERI	Perris	27.00	6.57	3.37	1.96	0.43	0.16	0.05	0.01
PICO	Pico Rivera	40.64	8.47	4.18	2.38	0.47	0.17	0.05	0.01
RDLD	Redlands	43.55	9.17	4.44	2.43	0.45	0.15	0.05	0.01
UPLA	Upland	49.43	10.09	5.11	2.93	0.58	0.20	0.07	0.02
KBUR	Burbank Airport	46.03	9.54	4.88	2.85	0.59	0.22	0.07	0.02
KCNO	Chino Airport.	35.66	8.90	4.72	2.77	0.63	0.24	0.07	0.02
KCQT	USC/Downtown L.A.	45.34	9.90	4.96	2.79	0.53	0.18	0.06	0.01
KFUL	Fullerton Airport	42.01	9.03	4.67	2.72	0.57	0.20	0.07	0.02
KHHR	Hawthorne Airport	50.38	11.10	5.83	3.44	0.75	0.26	0.09	0.02
KLAX	Los Angeles Int'l Airport	53.93	12.76	7.14	4.43	1.07	0.39	0.12	0.03
KLGB	Long Beach Airport	36.19	8.18	4.34	2.59	0.56	0.21	0.07	0.02
KONT	Ontario Airport	46.82	10.65	5.72	3.42	0.77	0.29	0.09	0.02
KPSP	Palm Springs Airport	30.91	6.85	3.55	2.06	0.43	0.16	0.05	0.01
KRAL	Riverside Airport	44.72	10.63	5.56	3.24	0.69	0.25	0.08	0.02
KSMO	Santa Monica Airport	55.55	11.88	6.36	3.83	0.85	0.30	0.10	0.02
KSNA	John Wayne Int'l Airport	46.20	10.72	5.63	3.38	0.76	0.29	0.09	0.02
KTRM	Desert Hot Springs Airport	33.57	8.31	4.56	2.80	0.65	0.24	0.08	0.02
KVNY	Van Nuys Airport	35.79	8.05	4.17	2.43	0.52	0.19	0.06	0.01

*Note: Facilities with stack heights less than 14 feet must perform Tier 3 or 4 dispersion modeling

Table 6.1 B – χ/Q for General Non-Combustion Point Source Equipment

14 ft ≤ Stack Height < 25 ft*

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	46.40	12.88	7.73	5.16	1.43	0.47	0.14	0.04
BNAP	Banning	49.83	15.25	9.54	6.61	2.13	0.81	0.28	0.09
CELA	Central L.A.	37.54	11.42	6.95	4.71	1.31	0.41	0.13	0.04
ELSI	Lake Elsinore	34.73	11.44	6.73	4.48	1.32	0.48	0.17	0.05
FONT	Fontana	49.30	14.18	8.47	5.69	1.62	0.56	0.17	0.05
MSVJ	Mission Viejo	36.69	10.68	6.31	4.23	1.22	0.43	0.15	0.05
PERI	Perris	40.07	12.51	7.21	4.74	1.38	0.54	0.19	0.06
PICO	Pico Rivera	42.92	12.08	6.91	4.48	1.18	0.42	0.14	0.04
RDLD	Redlands	46.28	13.58	9.06	6.65	2.16	0.64	0.18	0.05
UPLA	Upland	47.67	13.81	8.41	5.89	1.57	0.52	0.16	0.05
KBUR	Burbank Airport	38.66	10.82	6.30	4.14	1.14	0.46	0.17	0.05
KCNO	Chino Airport.	37.18	11.76	7.20	4.89	1.59	0.67	0.24	0.08
KCQT	USC/Downtown L.A.	46.96	14.53	9.30	6.45	1.86	0.56	0.15	0.05
KFUL	Fullerton Airport	37.00	10.76	6.29	4.04	1.20	0.43	0.16	0.05
KHHR	Hawthorne Airport	43.98	12.84	7.57	4.95	1.35	0.49	0.17	0.05
KLAX	Los Angeles Int'l Airport	45.53	13.60	8.38	5.68	1.76	0.71	0.25	0.08
KLGB	Long Beach Airport	35.40	11.99	7.60	5.32	1.71	0.64	0.22	0.07
KONT	Ontario Airport	47.53	14.23	8.88	6.14	2.03	0.85	0.32	0.10
KPSP	Palm Springs Airport	34.09	11.30	7.14	4.96	1.59	0.65	0.24	0.08
KRAL	Riverside Airport	43.31	14.55	9.20	6.41	2.01	0.71	0.23	0.07
KSMO	Santa Monica Airport	45.64	13.21	7.80	5.13	1.44	0.53	0.18	0.05
KSNA	John Wayne Int'l Airport	41.29	12.48	7.55	5.14	1.57	0.63	0.23	0.07
KTRM	Desert Hot Springs Airport	38.50	12.31	7.93	5.57	1.87	0.78	0.29	0.09
KVNY	Van Nuys Airport	33.39	10.25	6.07	4.05	1.24	0.49	0.17	0.05

*Note: Facilities with stack heights less than 14 feet must perform Tier 3 or 4 dispersion modeling

Table 6.2 A – χ/Q for General Non-Combustion Point Source Equipment

25 ft ≤ Stack Height < 50 ft

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	24.89	6.39	3.37	1.94	0.39	0.14	0.05	0.01
BNAP	Banning	20.18	5.81	3.49	2.22	0.57	0.22	0.07	0.02
CELA	Central L.A.	22.83	5.57	2.93	1.69	0.36	0.14	0.04	0.01
ELSI	Lake Elsinore	19.61	5.12	2.68	1.52	0.32	0.12	0.04	0.01
FONT	Fontana	26.01	6.61	3.65	2.18	0.48	0.18	0.06	0.01
MSVJ	Mission Viejo	19.35	5.15	2.79	1.62	0.33	0.12	0.04	0.01
PERI	Perris	16.03	4.71	2.65	1.61	0.39	0.15	0.05	0.01
PICO	Pico Rivera	24.22	5.95	3.23	1.92	0.42	0.16	0.05	0.01
RDLD	Redlands	24.11	6.67	3.50	1.99	0.40	0.15	0.05	0.01
UPLA	Upland	27.21	7.02	3.91	2.33	0.51	0.19	0.06	0.02
KBUR	Burbank Airport	25.74	6.55	3.73	2.30	0.54	0.21	0.07	0.02
KCNO	Chino Airport.	18.76	5.97	3.56	2.23	0.57	0.23	0.07	0.02
KCQT	USC/Downtown L.A.	24.42	7.07	3.87	2.26	0.47	0.17	0.06	0.01
KFUL	Fullerton Airport	25.29	6.32	3.58	2.18	0.50	0.19	0.06	0.02
KHHR	Hawthorne Airport	26.83	7.21	4.23	2.64	0.64	0.25	0.08	0.02
KLAX	Los Angeles Int'l Airport	28.07	8.09	5.07	3.34	0.91	0.36	0.12	0.03
KLGB	Long Beach Airport	20.16	5.61	3.32	2.09	0.51	0.20	0.07	0.02
KONT	Ontario Airport	25.71	7.23	4.32	2.74	0.69	0.27	0.09	0.02
KPSP	Palm Springs Airport	16.78	4.77	2.77	1.69	0.39	0.15	0.05	0.01
KRAL	Riverside Airport	22.53	7.15	4.19	2.58	0.61	0.23	0.08	0.02
KSMO	Santa Monica Airport	33.70	8.01	4.70	2.97	0.74	0.28	0.09	0.02
KSNA	John Wayne Int'l Airport	27.52	7.36	4.27	2.71	0.68	0.27	0.09	0.02
KTRM	Desert Hot Springs Airport	19.99	5.74	3.48	2.25	0.57	0.23	0.07	0.02
KVNY	Van Nuys Airport	21.17	5.70	3.24	1.99	0.47	0.19	0.06	0.01

Table 6.2 B – χ/Q for General Non-Combustion Point Source Equipment

25 ft ≤ Stack Height < 50 ft

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	24.27	7.94	5.10	3.54	1.10	0.42	0.14	0.04
BNAP	Banning	25.48	8.21	5.60	4.12	1.61	0.75	0.30	0.10
CELA	Central L.A.	21.12	7.18	4.55	3.16	0.97	0.36	0.13	0.04
ELSI	Lake Elsinore	20.80	7.79	4.86	3.34	1.07	0.44	0.17	0.05
FONT	Fontana	26.78	8.65	5.59	3.93	1.30	0.53	0.19	0.06
MSVJ	Mission Viejo	20.45	7.18	4.57	3.07	0.97	0.40	0.16	0.05
PERI	Perris	24.72	8.70	5.29	3.60	1.17	0.51	0.20	0.06
PICO	Pico Rivera	24.92	7.76	4.84	3.29	0.99	0.40	0.15	0.04
RDLD	Redlands	25.51	9.22	5.62	4.25	1.54	0.52	0.19	0.06
UPLA	Upland	24.75	8.44	5.51	3.86	1.24	0.50	0.18	0.06
KBUR	Burbank Airport	20.26	6.51	4.18	2.91	0.96	0.44	0.18	0.06
KCNO	Chino Airport.	18.11	6.64	4.47	3.22	1.23	0.60	0.24	0.08
KCQT	USC/Downtown L.A.	22.29	8.08	5.67	4.13	1.34	0.49	0.16	0.05
KFUL	Fullerton Airport	20.52	6.87	4.41	3.00	0.93	0.41	0.16	0.05
KHHR	Hawthorne Airport	22.38	7.59	4.97	3.46	1.12	0.48	0.19	0.06
KLAX	Los Angeles Int'l Airport	22.49	7.55	5.16	3.72	1.36	0.63	0.25	0.08
KLGB	Long Beach Airport	19.53	6.86	4.71	3.46	1.30	0.58	0.23	0.08
KONT	Ontario Airport	24.86	8.20	5.54	4.02	1.54	0.75	0.31	0.10
KPSP	Palm Springs Airport	19.60	6.63	4.50	3.28	1.24	0.60	0.25	0.08
KRAL	Riverside Airport	20.00	7.83	5.48	4.04	1.50	0.65	0.25	0.08
KSMO	Santa Monica Airport	25.22	8.10	5.26	3.64	1.17	0.49	0.18	0.06
KSNA	John Wayne Int'l Airport	23.36	7.39	4.85	3.48	1.26	0.59	0.23	0.07
KTRM	Desert Hot Springs Airport	22.70	7.22	4.96	3.67	1.47	0.73	0.30	0.10
KVNY	Van Nuys Airport	17.99	6.19	4.02	2.83	1.00	0.46	0.18	0.06

Table 6.3 A – χ/Q for General Non-Combustion Point Source Equipment

Stack Height \geq 50 ft

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.58	1.09	1.05	0.82	0.27	0.13	0.04	0.01
BNAP	Banning	0.04	0.17	0.52	0.72	0.40	0.20	0.07	0.02
CELA	Central L.A.	0.40	0.98	1.02	0.80	0.27	0.12	0.04	0.01
ELSI	Lake Elsinore	0.89	1.17	0.97	0.73	0.24	0.11	0.04	0.01
FONT	Fontana	0.31	0.74	0.97	0.90	0.36	0.17	0.06	0.01
MSVJ	Mission Viejo	0.31	0.83	0.92	0.75	0.25	0.11	0.04	0.01
PERI	Perris	0.88	0.93	0.87	0.77	0.30	0.14	0.05	0.01
PICO	Pico Rivera	0.29	0.76	0.94	0.84	0.32	0.15	0.05	0.01
RDLD	Redlands	0.89	1.19	1.11	0.86	0.29	0.13	0.05	0.01
UPLA	Upland	0.29	0.88	1.15	1.01	0.37	0.17	0.06	0.01
KBUR	Burbank Airport	0.19	0.52	0.80	0.88	0.42	0.20	0.07	0.02
KCNO	Chino Airport.	0.12	0.46	0.67	0.77	0.41	0.20	0.07	0.02
KCQT	USC/Downtown L.A.	0.35	1.01	1.11	0.93	0.33	0.15	0.05	0.01
KFUL	Fullerton Airport	0.17	0.67	0.99	0.94	0.37	0.17	0.06	0.01
KHHR	Hawthorne Airport	0.15	0.51	0.88	0.97	0.45	0.22	0.08	0.02
KLAX	Los Angeles Int'l Airport	0.03	0.25	0.63	0.91	0.60	0.30	0.11	0.03
KLGB	Long Beach Airport	0.10	0.43	0.72	0.80	0.39	0.18	0.06	0.01
KONT	Ontario Airport	0.06	0.40	0.75	0.91	0.50	0.24	0.09	0.02
KPSP	Palm Springs Airport	0.10	0.46	0.70	0.69	0.29	0.14	0.05	0.01
KRAL	Riverside Airport	0.09	0.53	0.88	0.94	0.44	0.21	0.07	0.02
KSMO	Santa Monica Airport	0.06	0.46	0.97	1.09	0.52	0.25	0.09	0.02
KSNA	John Wayne Int'l Airport	0.09	0.38	0.79	0.97	0.51	0.25	0.09	0.02
KTRM	Desert Hot Springs Airport	0.04	0.30	0.66	0.80	0.42	0.20	0.07	0.02
KVNY	Van Nuys Airport	0.18	0.51	0.72	0.76	0.36	0.17	0.06	0.01

Table 6.3 B – χ/Q for General Non-Combustion Point Source Equipment

Stack Height \geq 50 ft

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.65	1.08	1.17	1.07	0.55	0.31	0.15	0.05
BNAP	Banning	0.05	0.15	0.34	0.50	0.64	0.48	0.27	0.10
CELA	Central L.A.	0.40	1.21	1.36	1.20	0.54	0.30	0.13	0.04
ELSI	Lake Elsinore	1.21	1.91	1.63	1.37	0.66	0.38	0.18	0.06
FONT	Fontana	0.40	0.77	0.94	1.00	0.67	0.41	0.20	0.07
MSVJ	Mission Viejo	0.47	0.99	1.20	1.15	0.59	0.34	0.16	0.05
PERI	Perris	1.35	2.07	1.68	1.42	0.72	0.42	0.20	0.07
PICO	Pico Rivera	0.53	0.96	1.06	1.02	0.57	0.33	0.16	0.05
RDLD	Redlands	1.19	1.97	1.82	1.49	0.73	0.42	0.20	0.07
UPLA	Upland	0.34	0.76	1.07	1.13	0.68	0.40	0.19	0.07
KBUR	Burbank Airport	0.10	0.28	0.48	0.59	0.47	0.30	0.15	0.05
KCNO	Chino Airport.	0.07	0.26	0.43	0.55	0.50	0.36	0.19	0.07
KCQT	USC/Downtown L.A.	0.16	0.56	0.94	1.03	0.63	0.38	0.18	0.06
KFUL	Fullerton Airport	0.10	0.51	0.83	0.88	0.54	0.32	0.15	0.05
KHHR	Hawthorne Airport	0.08	0.39	0.72	0.86	0.61	0.37	0.18	0.06
KLAX	Los Angeles Int'l Airport	0.02	0.14	0.34	0.51	0.53	0.38	0.20	0.08
KLGB	Long Beach Airport	0.05	0.25	0.43	0.51	0.48	0.36	0.20	0.08
KONT	Ontario Airport	0.04	0.21	0.39	0.53	0.56	0.43	0.24	0.09
KPSP	Palm Springs Airport	0.05	0.21	0.33	0.41	0.48	0.37	0.21	0.08
KRAL	Riverside Airport	0.06	0.34	0.63	0.79	0.68	0.45	0.24	0.09
KSMO	Santa Monica Airport	0.04	0.33	0.68	0.84	0.58	0.36	0.17	0.06
KSNA	John Wayne Int'l Airport	0.04	0.20	0.43	0.59	0.56	0.38	0.20	0.07
KTRM	Desert Hot Springs Airport	0.02	0.15	0.30	0.41	0.54	0.43	0.25	0.10
KVNY	Van Nuys Airport	0.09	0.29	0.46	0.55	0.44	0.30	0.16	0.06

Table 6.4 – χ/Q for General Non-Combustion Point Source Equipment

All Operating Conditions

**Acute Hazard Index
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{lb}/\text{hr}]$)**

Stack Height (ft)	Downwind Distance (meters)							
	25	50	75	100	200	300	500	1000
14 ≤ Stack Height < 25	676.64	261.46	200.34	165.43	66.01	22.72	8.35	2.68
25 ≤ Stack Height < 50	423.53	153.11	128.46	106.97	45.07	19.81	7.70	2.64
Stack Height ≥ 50	81.87	44.53	26.15	23.70	17.76	13.56	6.82	2.82

Table 7.0 – χ/Q for General Non-Combustion Volume Source Equipment

Equipment Type	Building Area (ft ²)	Height (ft)	Cancer, Chronic, Chronic 8 Hr χ/Q Tables		Acute χ/Q Table	Source ID
			≤ 12 hr/day	> 12 hr/day		
General Non-Combustion Volume Source Equipment	Area ≤ 3,000	≤ 20	Table 7.1 A	Table 7.1 B	Table 7.7	V1
	3,000 < Area ≤ 10,000	≤ 20	Table 7.2 A	Table 7.2 B		V2
	10,000 < Area ≤ 30,000	≤ 20	Table 7.3 A	Table 7.3 B		V3
	Area ≤ 3,000	> 20	Table 7.4 A	Table 7.4 B		V4
	3,000 < Area ≤ 10,000	> 20	Table 7.5 A	Table 7.5 B		V5
	10,000 < Area ≤ 30,000	> 20	Table 7.6 A	Table 7.6 B		V6

Table 7.1 A– χ/Q for General Non-Combustion Volume Source Equipment

Building Area $\leq 3,000$ ft²

Height ≤ 20 ft

≤ 12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	8.24	2.66	1.36	0.84	0.25	0.12	0.05	0.01
BNAP	Banning	12.32	4.72	2.50	1.55	0.45	0.21	0.08	0.02
CELA	Central L.A.	7.23	2.28	1.24	0.80	0.25	0.12	0.04	0.01
ELSI	Lake Elsinore	9.36	2.96	1.43	0.84	0.23	0.10	0.04	0.01
FONT	Fontana	9.56	3.60	1.93	1.20	0.35	0.16	0.06	0.01
MSVJ	Mission Viejo	8.75	2.92	1.46	0.88	0.24	0.11	0.04	0.01
PERI	Perris	11.24	3.80	1.89	1.13	0.31	0.14	0.05	0.01
PICO	Pico Rivera	8.47	3.14	1.69	1.06	0.31	0.14	0.05	0.01
RDLD	Redlands	8.78	2.90	1.48	0.91	0.27	0.13	0.05	0.01
UPLA	Upland	8.67	3.28	1.82	1.17	0.36	0.17	0.06	0.02
KBUR	Burbank Airport	12.78	4.82	2.52	1.54	0.44	0.20	0.07	0.02
KCNO	Chino Airport.	15.87	5.72	2.88	1.72	0.46	0.21	0.07	0.02
KCQT	USC/Downtown L.A.	9.73	3.38	1.76	1.09	0.32	0.15	0.06	0.01
KFUL	Fullerton Airport	9.82	3.76	2.01	1.26	0.37	0.17	0.06	0.02
KHHR	Hawthorne Airport	11.74	4.48	2.42	1.53	0.47	0.22	0.08	0.02
KLAX	Los Angeles Int'l Airport	18.91	7.29	3.86	2.39	0.71	0.33	0.13	0.03
KLGB	Long Beach Airport	13.43	5.01	2.57	1.55	0.43	0.19	0.07	0.02
KONT	Ontario Airport	17.68	6.60	3.38	2.04	0.56	0.25	0.09	0.02
KPSP	Palm Springs Airport	10.42	3.72	1.87	1.12	0.30	0.14	0.05	0.01
KRAL	Riverside Airport	12.96	4.90	2.58	1.59	0.46	0.21	0.08	0.02
KSMO	Santa Monica Airport	13.18	5.25	2.87	1.82	0.55	0.26	0.10	0.02
KSNA	John Wayne Int'l Airport	17.06	6.46	3.34	2.03	0.56	0.25	0.09	0.02
KTRM	Desert Hot Springs Airport	15.32	5.69	2.90	1.74	0.48	0.21	0.08	0.02
KVNY	Van Nuys Airport	12.43	4.56	2.32	1.40	0.38	0.17	0.06	0.01

Table 7.2 A – χ/Q for General Non-Combustion Volume Source Equipment

3,000 ft² < Building Area ≤ 10,000 ft²

Height ≤ 20 ft

≤12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	5.55	2.14	1.17	0.75	0.24	0.12	0.04	0.01
BNAP	Banning	8.80	3.84	2.15	1.37	0.42	0.20	0.07	0.02
CELA	Central L.A.	4.84	1.87	1.09	0.72	0.24	0.11	0.04	0.01
ELSI	Lake Elsinore	6.31	2.34	1.21	0.74	0.21	0.10	0.04	0.01
FONT	Fontana	6.81	2.95	1.66	1.07	0.33	0.16	0.06	0.01
MSVJ	Mission Viejo	6.00	2.34	1.25	0.78	0.22	0.10	0.04	0.01
PERI	Perris	7.74	3.04	1.61	1.00	0.29	0.13	0.05	0.01
PICO	Pico Rivera	5.98	2.58	1.46	0.94	0.29	0.14	0.05	0.01
RDLD	Redlands	5.96	2.33	1.27	0.81	0.25	0.12	0.05	0.01
UPLA	Upland	6.12	2.72	1.59	1.05	0.34	0.16	0.06	0.02
KBUR	Burbank Airport	9.15	3.91	2.16	1.37	0.41	0.19	0.07	0.02
KCNO	Chino Airport.	11.20	4.59	2.45	1.51	0.43	0.20	0.07	0.02
KCQT	USC/Downtown L.A.	6.73	2.74	1.51	0.97	0.30	0.15	0.06	0.01
KFUL	Fullerton Airport	7.05	3.08	1.74	1.12	0.35	0.17	0.06	0.02
KHHR	Hawthorne Airport	8.32	3.67	2.10	1.37	0.44	0.22	0.08	0.02
KLAX	Los Angeles Int'l Airport	13.41	5.89	3.31	2.12	0.66	0.32	0.12	0.03
KLGB	Long Beach Airport	9.59	4.04	2.19	1.37	0.40	0.18	0.07	0.02
KONT	Ontario Airport	12.60	5.31	2.88	1.80	0.52	0.24	0.09	0.02
KPSP	Palm Springs Airport	7.34	2.98	1.60	0.99	0.28	0.13	0.05	0.01
KRAL	Riverside Airport	9.24	3.98	2.21	1.41	0.43	0.20	0.08	0.02
KSMO	Santa Monica Airport	9.49	4.32	2.49	1.62	0.52	0.25	0.09	0.02
KSNA	John Wayne Int'l Airport	12.23	5.22	2.86	1.79	0.52	0.24	0.08	0.02
KTRM	Desert Hot Springs Airport	10.88	4.57	2.47	1.54	0.44	0.20	0.07	0.02
KVNY	Van Nuys Airport	8.83	3.67	1.98	1.23	0.35	0.16	0.06	0.01

Table 7.2 B – χ/Q for General Non-Combustion Volume Source Equipment

3,000 ft² < Building Area ≤ 10,000 ft²

Height ≤ 20 ft

>12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	11.05	4.73	2.69	1.77	0.60	0.31	0.13	0.04
BNAP	Banning	17.61	8.43	5.02	3.37	1.21	0.64	0.28	0.09
CELA	Central L.A.	10.47	4.43	2.54	1.67	0.57	0.30	0.13	0.04
ELSI	Lake Elsinore	13.58	5.76	3.24	2.11	0.71	0.37	0.16	0.05
FONT	Fontana	12.90	5.73	3.30	2.18	0.75	0.39	0.17	0.05
MSVJ	Mission Viejo	12.71	5.41	3.05	1.99	0.66	0.34	0.15	0.05
PERI	Perris	15.00	6.48	3.68	2.41	0.82	0.42	0.18	0.06
PICO	Pico Rivera	11.25	4.89	2.79	1.83	0.61	0.31	0.13	0.04
RDLD	Redlands	13.65	5.86	3.34	2.19	0.75	0.39	0.17	0.05
UPLA	Upland	12.23	5.37	3.09	2.04	0.70	0.36	0.15	0.05
KBUR	Burbank Airport	13.21	5.93	3.41	2.23	0.75	0.39	0.17	0.05
KCNO	Chino Airport.	17.46	8.02	4.67	3.08	1.06	0.55	0.24	0.07
KCQT	USC/Downtown L.A.	11.98	5.19	2.96	1.94	0.66	0.34	0.15	0.05
KFUL	Fullerton Airport	12.23	5.37	3.07	2.01	0.68	0.35	0.15	0.05
KHHR	Hawthorne Airport	12.80	5.69	3.29	2.17	0.74	0.39	0.16	0.05
KLAX	Los Angeles Int'l Airport	16.59	7.84	4.64	3.10	1.10	0.58	0.25	0.08
KLGB	Long Beach Airport	13.87	6.44	3.79	2.53	0.90	0.48	0.21	0.07
KONT	Ontario Airport	19.75	9.42	5.60	3.75	1.34	0.71	0.32	0.10
KPSP	Palm Springs Airport	15.51	7.23	4.25	2.84	1.01	0.54	0.24	0.08
KRAL	Riverside Airport	15.28	7.03	4.13	2.75	0.97	0.52	0.23	0.08
KSMO	Santa Monica Airport	13.20	5.95	3.45	2.28	0.78	0.40	0.17	0.05
KSNA	John Wayne Int'l Airport	16.46	7.56	4.39	2.90	0.99	0.51	0.22	0.07
KTRM	Desert Hot Springs Airport	18.41	8.78	5.20	3.48	1.23	0.65	0.29	0.09
KVNY	Van Nuys Airport	12.96	5.83	3.36	2.21	0.75	0.39	0.17	0.05

Table 7.3 A – χ/Q for General Non-Combustion Volume Source Equipment

10,000 ft² < Building Area ≤ 30,000 ft²

Height ≤ 20 ft

≤12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	5.42	2.22	1.21	0.77	0.24	0.11	0.04	0.01
BNAP	Banning	7.23	3.57	2.07	1.33	0.41	0.19	0.07	0.02
CELA	Central L.A.	4.85	2.06	1.17	0.76	0.24	0.11	0.04	0.01
ELSI	Lake Elsinore	5.92	2.33	1.22	0.74	0.21	0.10	0.04	0.01
FONT	Fontana	6.55	2.97	1.68	1.07	0.33	0.15	0.06	0.01
MSVJ	Mission Viejo	5.68	2.35	1.27	0.78	0.22	0.10	0.04	0.01
PERI	Perris	6.95	2.94	1.59	0.99	0.28	0.13	0.05	0.01
PICO	Pico Rivera	6.01	2.67	1.50	0.96	0.29	0.13	0.05	0.01
RDLD	Redlands	5.84	2.40	1.31	0.83	0.25	0.12	0.05	0.01
UPLA	Upland	6.33	2.87	1.64	1.06	0.33	0.16	0.06	0.02
KBUR	Burbank Airport	7.89	3.72	2.11	1.35	0.40	0.19	0.07	0.02
KCNO	Chino Airport.	8.76	4.13	2.33	1.47	0.42	0.19	0.07	0.02
KCQT	USC/Downtown L.A.	6.47	2.78	1.53	0.97	0.29	0.14	0.05	0.01
KFUL	Fullerton Airport	6.79	3.09	1.75	1.12	0.34	0.16	0.06	0.01
KHHR	Hawthorne Airport	7.81	3.67	2.11	1.36	0.43	0.21	0.08	0.02
KLAX	Los Angeles Int'l Airport	10.38	5.28	3.11	2.03	0.63	0.30	0.11	0.03
KLGB	Long Beach Airport	7.75	3.70	2.09	1.32	0.38	0.17	0.06	0.01
KONT	Ontario Airport	9.88	4.81	2.74	1.74	0.51	0.23	0.08	0.02
KPSP	Palm Springs Airport	6.22	2.82	1.55	0.97	0.28	0.13	0.04	0.01
KRAL	Riverside Airport	8.00	3.79	2.16	1.38	0.42	0.20	0.07	0.02
KSMO	Santa Monica Airport	8.65	4.22	2.46	1.60	0.50	0.24	0.09	0.02
KSNA	John Wayne Int'l Airport	9.81	4.78	2.73	1.74	0.51	0.23	0.08	0.02
KTRM	Desert Hot Springs Airport	8.40	4.10	2.33	1.47	0.43	0.20	0.07	0.02
KVNY	Van Nuys Airport	7.25	3.39	1.91	1.20	0.35	0.16	0.06	0.01

Table 7.3 B – χ/Q for General Non-Combustion Volume Source Equipment

10,000 ft² < Building Area ≤ 30,000 ft² Height ≤ 20 ft >12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	9.91	4.50	2.61	1.73	0.59	0.31	0.13	0.04
BNAP	Banning	11.99	6.51	4.13	2.87	1.08	0.59	0.26	0.09
CELA	Central L.A.	9.77	4.36	2.52	1.66	0.57	0.29	0.13	0.04
ELSI	Lake Elsinore	12.01	5.40	3.11	2.05	0.70	0.36	0.16	0.05
FONT	Fontana	10.86	5.19	3.08	2.06	0.72	0.38	0.16	0.05
MSVJ	Mission Viejo	11.27	5.10	2.94	1.94	0.66	0.34	0.15	0.05
PERI	Perris	12.85	5.93	3.46	2.29	0.79	0.41	0.18	0.06
PICO	Pico Rivera	10.01	4.62	2.69	1.78	0.61	0.31	0.13	0.04
RDLD	Redlands	12.29	5.56	3.22	2.13	0.73	0.38	0.17	0.05
UPLA	Upland	10.98	5.11	2.99	1.99	0.68	0.35	0.15	0.05
KBUR	Burbank Airport	10.12	5.05	3.05	2.05	0.72	0.37	0.16	0.05
KCNO	Chino Airport.	12.37	6.40	3.95	2.70	0.98	0.52	0.23	0.07
KCQT	USC/Downtown L.A.	10.46	4.85	2.84	1.88	0.64	0.33	0.14	0.04
KFUL	Fullerton Airport	10.45	4.93	2.90	1.92	0.66	0.34	0.15	0.05
KHHR	Hawthorne Airport	10.68	5.16	3.07	2.05	0.72	0.37	0.16	0.05
KLAX	Los Angeles Int'l Airport	11.54	6.19	3.88	2.68	0.99	0.53	0.24	0.08
KLGB	Long Beach Airport	9.84	5.09	3.17	2.18	0.82	0.44	0.20	0.07
KONT	Ontario Airport	13.46	7.23	4.56	3.17	1.20	0.65	0.29	0.10
KPSP	Palm Springs Airport	10.70	5.62	3.52	2.43	0.91	0.49	0.22	0.07
KRAL	Riverside Airport	11.64	5.91	3.61	2.46	0.89	0.48	0.21	0.07
KSMO	Santa Monica Airport	10.88	5.34	3.20	2.14	0.75	0.39	0.17	0.05
KSNA	John Wayne Int'l Airport	11.92	6.17	3.79	2.58	0.92	0.48	0.21	0.07
KTRM	Desert Hot Springs Airport	12.09	6.57	4.18	2.92	1.11	0.60	0.27	0.09
KVNY	Van Nuys Airport	9.75	4.88	2.95	1.99	0.71	0.37	0.16	0.05

Table 7.4 A – χ/Q for General Non-Combustion Volume Source Equipment

Building Area \leq 3,000 ft²

Height $>$ 20 ft

\leq 12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	3.41	1.60	0.95	0.64	0.22	0.11	0.04	0.01
BNAP	Banning	5.67	2.86	1.72	1.15	0.38	0.18	0.07	0.02
CELA	Central L.A.	2.92	1.43	0.89	0.62	0.22	0.11	0.04	0.01
ELSI	Lake Elsinore	3.83	1.70	0.96	0.62	0.19	0.09	0.04	0.01
FONT	Fontana	4.44	2.23	1.35	0.90	0.30	0.15	0.06	0.01
MSVJ	Mission Viejo	3.74	1.73	1.00	0.65	0.20	0.10	0.04	0.01
PERI	Perris	4.81	2.23	1.28	0.83	0.26	0.12	0.05	0.01
PICO	Pico Rivera	3.90	1.96	1.19	0.80	0.26	0.13	0.05	0.01
RDLD	Redlands	3.69	1.73	1.03	0.68	0.23	0.11	0.05	0.01
UPLA	Upland	4.03	2.09	1.30	0.89	0.31	0.15	0.06	0.02
KBUR	Burbank Airport	5.92	2.92	1.73	1.14	0.37	0.18	0.07	0.02
KCNO	Chino Airport.	7.07	3.36	1.94	1.26	0.39	0.18	0.07	0.02
KCQT	USC/Downtown L.A.	4.24	2.05	1.22	0.81	0.28	0.14	0.05	0.01
KFUL	Fullerton Airport	4.63	2.33	1.41	0.94	0.32	0.16	0.06	0.02
KHHR	Hawthorne Airport	5.40	2.77	1.70	1.15	0.40	0.20	0.08	0.02
KLAX	Los Angeles Int'l Airport	8.52	4.35	2.64	1.77	0.60	0.30	0.12	0.03
KLGB	Long Beach Airport	6.13	2.98	1.74	1.14	0.36	0.17	0.06	0.02
KONT	Ontario Airport	8.04	3.91	2.29	1.49	0.47	0.22	0.08	0.02
KPSP	Palm Springs Airport	4.64	2.19	1.27	0.82	0.25	0.12	0.04	0.01
KRAL	Riverside Airport	5.94	2.96	1.77	1.18	0.39	0.19	0.07	0.02
KSMO	Santa Monica Airport	6.26	3.27	2.02	1.37	0.47	0.23	0.09	0.02
KSNA	John Wayne Int'l Airport	7.87	3.87	2.28	1.50	0.47	0.22	0.08	0.02
KTRM	Desert Hot Springs Airport	6.88	3.34	1.95	1.27	0.40	0.19	0.07	0.02
KVNY	Van Nuys Airport	5.63	2.71	1.58	1.03	0.32	0.15	0.06	0.01

Table 7.4 B – χ/Q for General Non-Combustion Volume Source Equipment

Building Area \leq 3,000 ft²

Height > 20 ft

>12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	7.21	3.60	2.21	1.51	0.55	0.29	0.13	0.04
BNAP	Banning	11.98	6.52	4.15	2.90	1.11	0.61	0.28	0.09
CELA	Central L.A.	6.76	3.38	2.08	1.43	0.53	0.28	0.12	0.04
ELSI	Lake Elsinore	8.84	4.37	2.65	1.80	0.65	0.35	0.15	0.05
FONT	Fontana	8.56	4.38	2.71	1.86	0.69	0.37	0.16	0.05
MSVJ	Mission Viejo	8.29	4.11	2.49	1.69	0.61	0.32	0.14	0.04
PERI	Perris	9.82	4.93	3.01	2.05	0.75	0.40	0.18	0.06
PICO	Pico Rivera	7.41	3.74	2.29	1.56	0.56	0.30	0.13	0.04
RDLD	Redlands	8.92	4.47	2.74	1.87	0.69	0.37	0.16	0.05
UPLA	Upland	8.07	4.11	2.54	1.74	0.64	0.34	0.15	0.05
KBUR	Burbank Airport	8.90	4.56	2.80	1.91	0.69	0.37	0.16	0.05
KCNO	Chino Airport.	11.78	6.17	3.83	2.64	0.97	0.52	0.23	0.07
KCQT	USC/Downtown L.A.	7.87	3.96	2.43	1.66	0.60	0.32	0.14	0.04
KFUL	Fullerton Airport	8.11	4.10	2.52	1.72	0.62	0.33	0.14	0.04
KHHR	Hawthorne Airport	8.48	4.35	2.70	1.85	0.68	0.36	0.16	0.05
KLAX	Los Angeles Int'l Airport	11.17	6.02	3.81	2.66	1.01	0.55	0.25	0.08
KLGB	Long Beach Airport	9.37	4.96	3.13	2.17	0.83	0.46	0.21	0.07
KONT	Ontario Airport	13.41	7.26	4.61	3.22	1.23	0.67	0.31	0.10
KPSP	Palm Springs Airport	10.47	5.56	3.50	2.44	0.93	0.51	0.23	0.08
KRAL	Riverside Airport	10.23	5.40	3.40	2.36	0.90	0.49	0.22	0.07
KSMO	Santa Monica Airport	8.80	4.56	2.83	1.95	0.72	0.38	0.17	0.05
KSNA	John Wayne Int'l Airport	11.14	5.82	3.61	2.48	0.91	0.48	0.21	0.07
KTRM	Desert Hot Springs Airport	12.60	6.80	4.30	2.99	1.13	0.61	0.28	0.09
KVNY	Van Nuys Airport	8.72	4.48	2.76	1.89	0.69	0.36	0.16	0.05

Table 7.5 A – χ/Q for General Non-Combustion Volume Source Equipment

3,000 ft² < Building Area ≤ 10,000 ft² Height > 20 ft ≤12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	3.46	1.66	0.98	0.65	0.21	0.11	0.04	0.01
BNAP	Banning	5.01	2.71	1.67	1.12	0.37	0.18	0.07	0.02
CELA	Central L.A.	3.15	1.57	0.95	0.64	0.22	0.11	0.04	0.01
ELSI	Lake Elsinore	3.72	1.70	0.96	0.62	0.19	0.09	0.03	0.01
FONT	Fontana	4.40	2.25	1.36	0.90	0.30	0.14	0.05	0.01
MSVJ	Mission Viejo	3.68	1.75	1.01	0.65	0.20	0.09	0.03	0.01
PERI	Perris	4.51	2.18	1.26	0.82	0.25	0.12	0.05	0.01
PICO	Pico Rivera	4.02	2.02	1.21	0.81	0.26	0.13	0.05	0.01
RDLD	Redlands	3.74	1.79	1.05	0.69	0.23	0.11	0.04	0.01
UPLA	Upland	4.25	2.19	1.34	0.90	0.30	0.15	0.06	0.01
KBUR	Burbank Airport	5.41	2.82	1.70	1.13	0.36	0.17	0.06	0.02
KCNO	Chino Airport.	5.99	3.12	1.86	1.22	0.38	0.18	0.07	0.02
KCQT	USC/Downtown L.A.	4.23	2.08	1.23	0.82	0.27	0.13	0.05	0.01
KFUL	Fullerton Airport	4.58	2.34	1.41	0.94	0.31	0.15	0.06	0.01
KHHR	Hawthorne Airport	5.28	2.78	1.70	1.15	0.39	0.19	0.08	0.02
KLAX	Los Angeles Int'l Airport	7.17	4.01	2.50	1.70	0.57	0.28	0.11	0.03
KLGB	Long Beach Airport	5.32	2.79	1.68	1.10	0.35	0.16	0.06	0.01
KONT	Ontario Airport	6.83	3.64	2.20	1.45	0.46	0.22	0.08	0.02
KPSP	Palm Springs Airport	4.19	2.11	1.24	0.81	0.25	0.12	0.04	0.01
KRAL	Riverside Airport	5.46	2.87	1.74	1.16	0.38	0.18	0.07	0.02
KSMO	Santa Monica Airport	5.96	3.22	1.99	1.35	0.46	0.22	0.09	0.02
KSNA	John Wayne Int'l Airport	6.80	3.63	2.20	1.46	0.46	0.22	0.08	0.02
KTRM	Desert Hot Springs Airport	5.79	3.09	1.86	1.23	0.39	0.18	0.07	0.02
KVNY	Van Nuys Airport	4.95	2.56	1.53	1.00	0.31	0.15	0.05	0.01

Table 7.5 B – χ/Q for General Non-Combustion Volume Source Equipment

3,000 ft² < Building Area ≤ 10,000 ft²

Height > 20 ft

>12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	6.69	3.46	2.15	1.48	0.54	0.29	0.13	0.04
BNAP	Banning	8.69	5.18	3.45	2.48	1.00	0.55	0.26	0.09
CELA	Central L.A.	6.54	3.35	2.07	1.42	0.52	0.28	0.12	0.04
ELSI	Lake Elsinore	8.08	4.15	2.56	1.75	0.64	0.34	0.15	0.05
FONT	Fontana	7.50	4.03	2.54	1.76	0.66	0.35	0.16	0.05
MSVJ	Mission Viejo	7.62	3.92	2.42	1.65	0.60	0.32	0.14	0.04
PERI	Perris	8.72	4.57	2.84	1.96	0.73	0.39	0.17	0.06
PICO	Pico Rivera	6.83	3.57	2.22	1.52	0.56	0.29	0.13	0.04
RDLD	Redlands	8.27	4.27	2.65	1.82	0.67	0.36	0.16	0.05
UPLA	Upland	7.50	3.95	2.46	1.70	0.63	0.33	0.15	0.05
KBUR	Burbank Airport	7.19	3.97	2.53	1.76	0.66	0.35	0.16	0.05
KCNO	Chino Airport.	8.85	5.05	3.29	2.33	0.90	0.49	0.22	0.07
KCQT	USC/Downtown L.A.	7.14	3.75	2.33	1.61	0.59	0.31	0.14	0.04
KFUL	Fullerton Airport	7.20	3.82	2.39	1.65	0.61	0.32	0.14	0.04
KHHR	Hawthorne Airport	7.40	4.00	2.53	1.76	0.66	0.35	0.15	0.05
KLAX	Los Angeles Int'l Airport	8.27	4.88	3.23	2.31	0.91	0.50	0.23	0.08
KLGB	Long Beach Airport	7.02	4.03	2.65	1.89	0.75	0.42	0.19	0.07
KONT	Ontario Airport	9.70	5.73	3.81	2.74	1.10	0.61	0.28	0.10
KPSP	Palm Springs Airport	7.66	4.45	2.94	2.10	0.84	0.47	0.22	0.07
KRAL	Riverside Airport	8.21	4.63	3.00	2.11	0.82	0.45	0.21	0.07
KSMO	Santa Monica Airport	7.60	4.16	2.64	1.84	0.69	0.37	0.16	0.05
KSNA	John Wayne Int'l Airport	8.56	4.87	3.15	2.22	0.85	0.46	0.20	0.06
KTRM	Desert Hot Springs Airport	8.80	5.25	3.51	2.53	1.02	0.57	0.26	0.09
KVNY	Van Nuys Airport	6.92	3.83	2.45	1.71	0.65	0.35	0.16	0.05

Table 7.6 A – χ/Q for General Non-Combustion Volume Source Equipment

10,000 ft² < Building Area ≤ 30,000 ft²

Height > 20 ft

≤12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	1.86	1.07	0.69	0.49	0.18	0.09	0.04	0.01
BNAP	Banning	2.88	1.77	1.18	0.84	0.31	0.16	0.06	0.02
CELA	Central L.A.	1.75	1.03	0.69	0.49	0.18	0.09	0.04	0.01
ELSI	Lake Elsinore	1.93	1.06	0.67	0.46	0.16	0.08	0.03	0.01
FONT	Fontana	2.48	1.46	0.96	0.68	0.25	0.13	0.05	0.01
MSVJ	Mission Viejo	1.99	1.11	0.71	0.49	0.17	0.08	0.03	0.01
PERI	Perris	2.42	1.37	0.88	0.61	0.21	0.11	0.04	0.01
PICO	Pico Rivera	2.26	1.32	0.87	0.61	0.22	0.11	0.04	0.01
RDLD	Redlands	2.01	1.15	0.74	0.52	0.19	0.10	0.04	0.01
UPLA	Upland	2.41	1.44	0.96	0.68	0.26	0.13	0.05	0.01
KBUR	Burbank Airport	3.08	1.83	1.20	0.84	0.30	0.15	0.06	0.02
KCNO	Chino Airport.	3.39	2.00	1.30	0.91	0.32	0.16	0.06	0.02
KCQT	USC/Downtown L.A.	2.31	1.34	0.87	0.61	0.23	0.12	0.05	0.01
KFUL	Fullerton Airport	2.58	1.52	1.00	0.71	0.26	0.13	0.05	0.01
KHHR	Hawthorne Airport	2.98	1.80	1.21	0.86	0.33	0.17	0.07	0.02
KLAX	Los Angeles Int'l Airport	4.11	2.59	1.75	1.26	0.48	0.25	0.10	0.03
KLGB	Long Beach Airport	3.02	1.79	1.17	0.82	0.29	0.14	0.06	0.01
KONT	Ontario Airport	3.91	2.35	1.54	1.08	0.38	0.19	0.07	0.02
KPSP	Palm Springs Airport	2.32	1.34	0.86	0.60	0.21	0.10	0.04	0.01
KRAL	Riverside Airport	3.08	1.85	1.22	0.86	0.32	0.16	0.06	0.02
KSMO	Santa Monica Airport	3.43	2.11	1.42	1.02	0.38	0.20	0.08	0.02
KSNA	John Wayne Int'l Airport	3.91	2.36	1.55	1.09	0.39	0.19	0.07	0.02
KTRM	Desert Hot Springs Airport	3.28	1.97	1.29	0.90	0.32	0.16	0.06	0.02
KVNY	Van Nuys Airport	2.80	1.65	1.07	0.74	0.26	0.13	0.05	0.01

Table 7.6 B – χ/Q for General Non-Combustion Volume Source Equipment

10,000 ft² < Building Area ≤ 30,000 ft²

Height > 20 ft

>12 hr/day

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	3.87	2.34	1.58	1.15	0.47	0.26	0.12	0.04
BNAP	Banning	5.44	3.63	2.60	1.96	0.87	0.50	0.24	0.08
CELA	Central L.A.	3.76	2.26	1.52	1.11	0.45	0.25	0.11	0.04
ELSI	Lake Elsinore	4.65	2.79	1.88	1.36	0.55	0.31	0.14	0.05
FONT	Fontana	4.44	2.74	1.88	1.38	0.57	0.32	0.15	0.05
MSVJ	Mission Viejo	4.40	2.64	1.78	1.28	0.52	0.29	0.13	0.04
PERI	Perris	5.07	3.08	2.09	1.52	0.63	0.35	0.16	0.05
PICO	Pico Rivera	3.99	2.42	1.63	1.18	0.48	0.27	0.12	0.04
RDLD	Redlands	4.77	2.88	1.95	1.42	0.58	0.33	0.15	0.05
UPLA	Upland	4.39	2.67	1.82	1.32	0.54	0.30	0.14	0.04
KBUR	Burbank Airport	4.39	2.74	1.89	1.38	0.57	0.32	0.15	0.05
KCNO	Chino Airport.	5.46	3.52	2.46	1.83	0.78	0.44	0.21	0.07
KCQT	USC/Downtown L.A.	4.17	2.53	1.72	1.25	0.51	0.28	0.13	0.04
KFUL	Fullerton Airport	4.25	2.60	1.76	1.28	0.53	0.29	0.13	0.04
KHHR	Hawthorne Airport	4.38	2.72	1.87	1.37	0.57	0.32	0.15	0.05
KLAX	Los Angeles Int'l Airport	5.11	3.38	2.40	1.81	0.79	0.45	0.21	0.07
KLGB	Long Beach Airport	4.34	2.81	1.99	1.49	0.66	0.38	0.18	0.06
KONT	Ontario Airport	6.04	4.00	2.86	2.16	0.96	0.56	0.27	0.09
KPSP	Palm Springs Airport	4.74	3.10	2.21	1.66	0.73	0.42	0.20	0.07
KRAL	Riverside Airport	4.97	3.18	2.23	1.66	0.71	0.41	0.19	0.07
KSMO	Santa Monica Airport	4.54	2.83	1.95	1.43	0.59	0.33	0.15	0.05
KSNA	John Wayne Int'l Airport	5.29	3.38	2.36	1.74	0.74	0.41	0.19	0.06
KTRM	Desert Hot Springs Airport	5.57	3.71	2.66	2.01	0.89	0.52	0.25	0.08
KVNY	Van Nuys Airport	4.22	2.65	1.83	1.34	0.56	0.32	0.15	0.05

Table 7.7 – χ/Q for General Non-Combustion Volume Source Equipment

All Operating Conditions

Acute Hazard Index
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{lb}/\text{hr}]$)

Building Area (ft ²)	Stack Height (ft)	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
Building Area \leq 3,000	\leq 20	1,033.77	414.65	218.14	135.08	44.63	23.14	10.01	3.15
3,000 < Building Area \leq 10,000	\leq 20	707.38	325.92	183.90	119.58	41.96	22.20	9.76	3.12
10,000 < Building Area \leq 30,000	\leq 20	488.94	273.75	169.32	114.26	39.57	20.43	8.71	2.64
Building Area \leq 3,000	$>$ 20	427.29	230.93	142.89	99.10	38.15	20.87	9.44	3.10
3,000 < Building Area \leq 10,000	$>$ 20	325.79	202.24	133.97	94.69	35.76	19.08	8.36	2.59
10,000 < Building Area \leq 30,000	$>$ 20	182.34	126.31	91.40	68.97	29.84	16.86	7.75	2.49

Table 8.0 – χ/Q for Natural Gas Boilers

Equipment Type	Equipment Rating (MMBTU/hr)	Cancer, Chronic, Chronic 8 Hr	χ/Q Tables	Acute χ/Q Table	Source ID
		≤ 12 hr/day	> 12 hr/day		
Gaseous Fuel Fired (Natural Gas) Boilers	$2 < \text{Rating} \leq 5$	Table 8.1 A	Table 8.1 B	Table 8.8	B1
	$5 < \text{Rating} \leq 10$	Table 8.2 A	Table 8.2 B		B2
	$10 < \text{Rating} \leq 20$	Table 8.3 A	Table 8.3 B		B3
	$20 < \text{Rating} \leq 30$	Table 8.4 A	Table 8.4 B		B4
	$30 < \text{Rating} \leq 50$	Table 8.5 A	Table 8.5 B		B5
	$50 < \text{Rating} \leq 150$	Table 8.6 A	Table 8.6 B		B6
	$150 < \text{Rating} \leq 200$	Table 8.7 A	Table 8.7 B		B7

Table 8.1 A – χ/Q for Natural Gas Boilers

2 < Rating (MMBTU/hr) \leq 5

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	13.41	4.34	2.61	1.59	0.35	0.13	0.04	0.01
BNAP	Banning	14.59	4.49	2.94	1.95	0.53	0.21	0.07	0.02
CELA	Central L.A.	14.45	3.98	2.34	1.42	0.33	0.13	0.04	0.01
ELSI	Lake Elsinore	8.92	3.16	1.95	1.21	0.28	0.11	0.04	0.01
FONT	Fontana	16.21	4.77	2.95	1.85	0.44	0.17	0.06	0.01
MSVJ	Mission Viejo	10.73	3.54	2.17	1.33	0.30	0.12	0.04	0.01
PERI	Perris	9.87	3.21	2.04	1.33	0.35	0.14	0.05	0.01
PICO	Pico Rivera	15.62	4.36	2.61	1.63	0.38	0.15	0.05	0.01
RDLD	Redlands	11.97	4.38	2.65	1.61	0.35	0.14	0.05	0.01
UPLA	Upland	17.23	5.03	3.13	1.97	0.46	0.18	0.06	0.02
KBUR	Burbank Airport	17.17	4.93	3.08	1.99	0.49	0.20	0.07	0.02
KCNO	Chino Airport.	12.11	4.25	2.82	1.88	0.51	0.21	0.07	0.02
KCQT	USC/Downtown L.A.	12.73	4.74	2.99	1.87	0.42	0.16	0.05	0.01
KFUL	Fullerton Airport	17.05	4.69	2.89	1.84	0.44	0.17	0.06	0.01
KHHR	Hawthorne Airport	18.93	5.45	3.50	2.29	0.59	0.23	0.08	0.02
KLAX	Los Angeles Int'l Airport	20.56	6.23	4.23	2.91	0.83	0.33	0.11	0.03
KLGB	Long Beach Airport	14.51	4.30	2.77	1.82	0.46	0.19	0.06	0.02
KONT	Ontario Airport	17.36	5.34	3.52	2.34	0.62	0.25	0.09	0.02
KPSP	Palm Springs Airport	10.92	3.45	2.24	1.44	0.35	0.14	0.05	0.01
KRAL	Riverside Airport	14.00	5.12	3.37	2.20	0.55	0.22	0.08	0.02
KSMO	Santa Monica Airport	25.29	6.32	3.98	2.61	0.68	0.27	0.09	0.02
KSNA	John Wayne Int'l Airport	19.61	5.61	3.50	2.31	0.60	0.25	0.08	0.02
KTRM	Desert Hot Springs Airport	14.28	4.35	2.86	1.93	0.52	0.21	0.07	0.02
KVNY	Van Nuys Airport	14.28	4.29	2.66	1.71	0.43	0.17	0.06	0.01

Table 8.1 B – χ/Q for Natural Gas Boilers

2 < Rating (MMBTU/hr) \leq 5

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	8.83	2.51	1.76	1.31	0.59	0.30	0.14	0.05
BNAP	Banning	16.96	5.08	3.61	2.73	1.12	0.58	0.28	0.10
CELA	Central L.A.	8.08	2.11	1.47	1.10	0.51	0.26	0.12	0.04
ELSI	Lake Elsinore	5.04	1.63	1.08	0.76	0.43	0.27	0.15	0.06
FONT	Fontana	12.49	3.43	2.36	1.73	0.73	0.39	0.19	0.07
MSVJ	Mission Viejo	5.91	1.79	1.18	0.82	0.40	0.25	0.13	0.05
PERI	Perris	7.68	2.30	1.57	1.16	0.55	0.32	0.17	0.06
PICO	Pico Rivera	11.03	2.88	1.89	1.36	0.56	0.30	0.14	0.05
RDLD	Redlands	6.69	2.31	1.60	1.17	0.56	0.34	0.20	0.08
UPLA	Upland	11.18	3.05	2.13	1.56	0.69	0.36	0.19	0.08
KBUR	Burbank Airport	11.76	3.25	2.13	1.49	0.53	0.28	0.14	0.05
KCNO	Chino Airport.	10.26	3.21	2.24	1.65	0.67	0.36	0.18	0.07
KCQT	USC/Downtown L.A.	7.72	2.59	1.89	1.44	0.68	0.37	0.18	0.07
KFUL	Fullerton Airport	9.37	2.49	1.63	1.13	0.46	0.25	0.13	0.05
KHHR	Hawthorne Airport	12.48	3.47	2.37	1.70	0.67	0.35	0.17	0.06
KLAX	Los Angeles Int'l Airport	14.98	4.44	3.15	2.33	0.89	0.44	0.21	0.08
KLGB	Long Beach Airport	10.44	3.03	2.15	1.64	0.72	0.38	0.20	0.08
KONT	Ontario Airport	15.84	4.69	3.31	2.46	0.96	0.49	0.24	0.09
KPSP	Palm Springs Airport	12.74	3.89	2.68	1.99	0.79	0.41	0.21	0.08
KRAL	Riverside Airport	9.57	3.37	2.49	1.91	0.85	0.45	0.22	0.09
KSMO	Santa Monica Airport	14.81	3.77	2.52	1.81	0.69	0.34	0.16	0.06
KSNA	John Wayne Int'l Airport	14.14	3.99	2.61	1.87	0.69	0.36	0.18	0.07
KTRM	Desert Hot Springs Airport	13.70	4.14	2.89	2.15	0.88	0.49	0.25	0.10
KVNY	Van Nuys Airport	9.82	2.82	1.84	1.32	0.52	0.28	0.14	0.06

Table 8.2 A – χ/Q for Natural Gas Boilers

5 < Rating (MMBTU/hr) \leq 10

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	6.63	2.71	1.80	1.22	0.31	0.12	0.04	0.01
BNAP	Banning	11.09	3.56	2.41	1.71	0.49	0.20	0.07	0.02
CELA	Central L.A.	8.73	2.76	1.76	1.16	0.30	0.12	0.04	0.01
ELSI	Lake Elsinore	4.37	1.79	1.25	0.88	0.24	0.10	0.04	0.01
FONT	Fontana	9.95	3.25	2.17	1.50	0.39	0.16	0.06	0.01
MSVJ	Mission Viejo	5.65	2.19	1.48	1.01	0.26	0.11	0.04	0.01
PERI	Perris	6.64	2.24	1.52	1.07	0.31	0.13	0.05	0.01
PICO	Pico Rivera	9.95	3.09	1.97	1.33	0.34	0.14	0.05	0.01
RDLD	Redlands	5.59	2.64	1.79	1.22	0.31	0.12	0.05	0.01
UPLA	Upland	10.02	3.39	2.29	1.58	0.41	0.17	0.06	0.02
KBUR	Burbank Airport	11.80	3.60	2.38	1.66	0.44	0.19	0.07	0.02
KCNO	Chino Airport.	8.74	3.04	2.13	1.54	0.46	0.20	0.07	0.02
KCQT	USC/Downtown L.A.	5.69	2.76	1.95	1.38	0.36	0.14	0.05	0.01
KFUL	Fullerton Airport	11.06	3.32	2.19	1.51	0.40	0.16	0.06	0.01
KHHR	Hawthorne Airport	13.92	4.20	2.83	1.98	0.55	0.22	0.08	0.02
KLAX	Los Angeles Int'l Airport	15.95	5.01	3.50	2.55	0.78	0.32	0.11	0.03
KLGB	Long Beach Airport	10.07	3.17	2.14	1.52	0.42	0.17	0.06	0.02
KONT	Ontario Airport	11.97	3.85	2.68	1.94	0.57	0.24	0.08	0.02
KPSP	Palm Springs Airport	6.59	2.26	1.60	1.14	0.32	0.13	0.05	0.01
KRAL	Riverside Airport	8.19	3.30	2.38	1.72	0.49	0.20	0.07	0.02
KSMO	Santa Monica Airport	18.60	4.90	3.22	2.25	0.63	0.25	0.09	0.02
KSNA	John Wayne Int'l Airport	14.46	4.32	2.80	1.97	0.55	0.23	0.08	0.02
KTRM	Desert Hot Springs Airport	9.87	3.13	2.18	1.59	0.47	0.19	0.07	0.02
KVNY	Van Nuys Airport	9.66	3.08	2.04	1.42	0.39	0.16	0.06	0.01

Table 8.2 B – χ/Q for Natural Gas Boilers

5 < Rating (MMBTU/hr) ≤ 10

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	4.10	1.35	0.93	0.69	0.27	0.17	0.10	0.05
BNAP	Banning	11.83	3.44	2.29	1.77	0.75	0.40	0.22	0.10
CELA	Central L.A.	4.54	1.30	0.88	0.64	0.24	0.15	0.09	0.04
ELSI	Lake Elsinore	2.52	0.89	0.62	0.45	0.16	0.11	0.09	0.05
FONT	Fontana	7.25	2.04	1.35	1.01	0.39	0.22	0.14	0.06
MSVJ	Mission Viejo	2.77	0.98	0.66	0.47	0.16	0.11	0.08	0.04
PERI	Perris	4.69	1.42	0.94	0.70	0.27	0.16	0.11	0.05
PICO	Pico Rivera	6.40	1.73	1.09	0.79	0.29	0.17	0.10	0.05
RDLD	Redlands	3.00	1.25	0.86	0.64	0.24	0.15	0.14	0.08
UPLA	Upland	6.20	1.81	1.24	0.93	0.35	0.21	0.13	0.07
KBUR	Burbank Airport	7.55	2.12	1.36	0.99	0.32	0.17	0.10	0.04
KCNO	Chino Airport.	7.07	2.16	1.47	1.11	0.42	0.22	0.13	0.06
KCQT	USC/Downtown L.A.	3.04	1.27	0.92	0.70	0.28	0.18	0.13	0.06
KFUL	Fullerton Airport	5.55	1.56	1.01	0.73	0.24	0.14	0.08	0.04
KHHR	Hawthorne Airport	8.37	2.34	1.54	1.14	0.41	0.22	0.12	0.05
KLAX	Los Angeles Int'l Airport	10.74	3.18	2.18	1.66	0.62	0.30	0.16	0.07
KLGB	Long Beach Airport	6.51	1.85	1.22	0.95	0.38	0.20	0.13	0.07
KONT	Ontario Airport	10.65	3.10	2.10	1.61	0.62	0.31	0.18	0.08
KPSP	Palm Springs Airport	8.99	2.67	1.76	1.34	0.52	0.27	0.15	0.07
KRAL	Riverside Airport	5.20	1.92	1.37	1.06	0.44	0.25	0.16	0.07
KSMO	Santa Monica Airport	9.81	2.53	1.65	1.21	0.42	0.21	0.11	0.05
KSNA	John Wayne Int'l Airport	9.34	2.65	1.67	1.23	0.42	0.21	0.12	0.06
KTRM	Desert Hot Springs Airport	8.68	2.65	1.75	1.34	0.53	0.29	0.18	0.08
KVNY	Van Nuys Airport	6.11	1.78	1.13	0.83	0.28	0.15	0.09	0.05

Table 8.3 A – χ/Q for Natural Gas Boilers

10 < Rating (MMBTU/hr) \leq 20

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	3.82	1.78	1.26	0.89	0.27	0.11	0.04	0.01
BNAP	Banning	8.79	2.98	2.05	1.47	0.46	0.19	0.07	0.02
CELA	Central L.A.	6.08	2.11	1.42	0.96	0.27	0.11	0.04	0.01
ELSI	Lake Elsinore	2.77	1.20	0.89	0.65	0.21	0.09	0.03	0.01
FONT	Fontana	7.00	2.40	1.67	1.18	0.36	0.15	0.06	0.01
MSVJ	Mission Viejo	3.41	1.44	1.05	0.75	0.23	0.10	0.04	0.01
PERI	Perris	5.10	1.76	1.22	0.88	0.28	0.12	0.05	0.01
PICO	Pico Rivera	7.07	2.33	1.54	1.06	0.31	0.13	0.05	0.01
RDLD	Redlands	3.10	1.68	1.22	0.87	0.27	0.12	0.04	0.01
UPLA	Upland	6.63	2.45	1.73	1.23	0.37	0.16	0.06	0.02
KBUR	Burbank Airport	9.04	2.88	1.95	1.38	0.41	0.18	0.07	0.02
KCNO	Chino Airport.	6.97	2.43	1.73	1.28	0.43	0.18	0.07	0.02
KCQT	USC/Downtown L.A.	3.17	1.80	1.35	0.99	0.32	0.13	0.05	0.01
KFUL	Fullerton Airport	8.32	2.61	1.77	1.25	0.37	0.15	0.06	0.01
KHHR	Hawthorne Airport	10.84	3.49	2.40	1.71	0.52	0.21	0.08	0.02
KLAX	Los Angeles Int'l Airport	12.76	4.24	2.99	2.21	0.73	0.30	0.11	0.03
KLGB	Long Beach Airport	7.66	2.55	1.75	1.26	0.38	0.16	0.06	0.01
KONT	Ontario Airport	9.15	3.07	2.17	1.60	0.52	0.22	0.08	0.02
KPSP	Palm Springs Airport	4.62	1.69	1.23	0.91	0.29	0.12	0.04	0.01
KRAL	Riverside Airport	5.61	2.42	1.80	1.35	0.44	0.19	0.07	0.02
KSMO	Santa Monica Airport	14.80	4.12	2.74	1.94	0.59	0.24	0.09	0.02
KSNA	John Wayne Int'l Airport	11.57	3.61	2.37	1.68	0.52	0.22	0.08	0.02
KTRM	Desert Hot Springs Airport	7.55	2.50	1.75	1.31	0.43	0.18	0.07	0.02
KVNY	Van Nuys Airport	7.43	2.47	1.66	1.18	0.36	0.15	0.06	0.01

Table 8.3 B – χ/Q for Natural Gas Boilers

10 < Rating (MMBTU/hr) \leq 20

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	2.30	0.87	0.62	0.46	0.18	0.10	0.07	0.04
BNAP	Banning	9.06	2.68	1.74	1.27	0.57	0.31	0.18	0.09
CELA	Central L.A.	3.07	0.97	0.67	0.48	0.18	0.10	0.07	0.04
ELSI	Lake Elsinore	1.58	0.59	0.43	0.32	0.12	0.06	0.06	0.04
FONT	Fontana	4.93	1.44	0.96	0.70	0.27	0.15	0.10	0.05
MSVJ	Mission Viejo	1.59	0.62	0.45	0.32	0.11	0.06	0.05	0.03
PERI	Perris	3.41	1.07	0.71	0.52	0.20	0.11	0.08	0.04
PICO	Pico Rivera	4.31	1.24	0.79	0.56	0.21	0.11	0.08	0.04
RDLD	Redlands	1.68	0.79	0.58	0.43	0.16	0.10	0.09	0.07
UPLA	Upland	4.03	1.27	0.88	0.65	0.25	0.14	0.09	0.06
KBUR	Burbank Airport	5.51	1.61	1.04	0.74	0.25	0.12	0.08	0.04
KCNO	Chino Airport.	5.49	1.72	1.16	0.86	0.33	0.16	0.10	0.05
KCQT	USC/Downtown L.A.	1.59	0.79	0.60	0.46	0.18	0.11	0.09	0.05
KFUL	Fullerton Airport	3.98	1.18	0.78	0.55	0.18	0.09	0.06	0.03
KHHR	Hawthorne Airport	6.28	1.84	1.23	0.88	0.32	0.16	0.10	0.04
KLAX	Los Angeles Int'l Airport	8.30	2.56	1.74	1.28	0.50	0.23	0.13	0.06
KLGB	Long Beach Airport	4.82	1.39	0.90	0.66	0.27	0.13	0.09	0.06
KONT	Ontario Airport	8.01	2.39	1.60	1.18	0.47	0.23	0.13	0.07
KPSP	Palm Springs Airport	7.10	2.14	1.38	1.01	0.40	0.20	0.12	0.06
KRAL	Riverside Airport	3.47	1.37	0.99	0.75	0.31	0.17	0.12	0.06
KSMO	Santa Monica Airport	7.41	2.01	1.31	0.94	0.33	0.15	0.09	0.04
KSNA	John Wayne Int'l Airport	7.05	2.07	1.29	0.92	0.32	0.15	0.09	0.05
KTRM	Desert Hot Springs Airport	6.41	2.04	1.33	0.97	0.39	0.20	0.14	0.07
KVNY	Van Nuys Airport	4.45	1.34	0.85	0.61	0.21	0.10	0.06	0.04

Table 8.4 A – χ/Q for Natural Gas Boilers

20 < Rating (MMBTU/hr) \leq 30

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	1.18	0.71	0.62	0.49	0.20	0.10	0.04	0.01
BNAP	Banning	4.92	1.80	1.43	1.08	0.39	0.17	0.07	0.02
CELA	Central L.A.	2.76	1.15	0.90	0.66	0.22	0.10	0.04	0.01
ELSI	Lake Elsinore	1.33	0.68	0.57	0.44	0.17	0.08	0.03	0.01
FONT	Fontana	3.46	1.34	1.07	0.81	0.29	0.14	0.05	0.01
MSVJ	Mission Viejo	1.41	0.72	0.62	0.49	0.19	0.09	0.03	0.01
PERI	Perris	2.98	1.13	0.86	0.65	0.24	0.11	0.04	0.01
PICO	Pico Rivera	3.76	1.38	1.04	0.76	0.26	0.12	0.05	0.01
RDLD	Redlands	0.84	0.60	0.57	0.47	0.20	0.10	0.04	0.01
UPLA	Upland	2.67	1.16	0.98	0.76	0.29	0.14	0.05	0.01
KBUR	Burbank Airport	4.10	1.54	1.22	0.93	0.34	0.16	0.06	0.02
KCNO	Chino Airport.	4.00	1.50	1.18	0.92	0.36	0.17	0.06	0.02
KCQT	USC/Downtown L.A.	0.37	0.47	0.50	0.44	0.21	0.12	0.05	0.01
KFUL	Fullerton Airport	4.63	1.63	1.24	0.91	0.31	0.14	0.05	0.01
KHHR	Hawthorne Airport	6.03	2.16	1.70	1.27	0.44	0.19	0.07	0.02
KLAX	Los Angeles Int'l Airport	6.98	2.65	2.11	1.62	0.62	0.27	0.10	0.03
KLGB	Long Beach Airport	3.50	1.34	1.06	0.82	0.31	0.15	0.06	0.01
KONT	Ontario Airport	4.88	1.80	1.43	1.11	0.44	0.20	0.08	0.02
KPSP	Palm Springs Airport	2.28	0.85	0.70	0.56	0.23	0.11	0.04	0.01
KRAL	Riverside Airport	1.85	1.02	0.97	0.81	0.35	0.17	0.07	0.02
KSMO	Santa Monica Airport	9.06	2.85	2.08	1.50	0.51	0.22	0.08	0.02
KSNA	John Wayne Int'l Airport	7.18	2.47	1.77	1.29	0.44	0.20	0.07	0.02
KTRM	Desert Hot Springs Airport	4.27	1.54	1.18	0.91	0.36	0.16	0.06	0.02
KVNY	Van Nuys Airport	4.27	1.55	1.16	0.86	0.31	0.14	0.05	0.01

Table 8.4 B – χ/Q for Natural Gas Boilers

20 < Rating (MMBTU/hr) \leq 30

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.98	0.33	0.27	0.22	0.10	0.06	0.04	0.03
BNAP	Banning	4.34	1.39	1.00	0.74	0.34	0.20	0.12	0.07
CELA	Central L.A.	1.22	0.49	0.39	0.29	0.12	0.06	0.04	0.03
ELSI	Lake Elsinore	0.71	0.32	0.26	0.20	0.08	0.04	0.03	0.03
FONT	Fontana	2.38	0.78	0.59	0.44	0.18	0.10	0.06	0.04
MSVJ	Mission Viejo	0.58	0.29	0.25	0.20	0.08	0.04	0.03	0.02
PERI	Perris	1.87	0.65	0.47	0.35	0.14	0.07	0.04	0.03
PICO	Pico Rivera	2.15	0.70	0.51	0.37	0.13	0.07	0.04	0.03
RDLD	Redlands	0.40	0.27	0.25	0.21	0.10	0.06	0.04	0.05
UPLA	Upland	1.57	0.59	0.48	0.37	0.16	0.09	0.06	0.04
KBUR	Burbank Airport	2.37	0.79	0.59	0.44	0.17	0.09	0.05	0.03
KCNO	Chino Airport.	3.01	1.03	0.76	0.57	0.23	0.12	0.06	0.04
KCQT	USC/Downtown L.A.	0.19	0.19	0.21	0.19	0.10	0.06	0.05	0.04
KFUL	Fullerton Airport	2.04	0.70	0.52	0.38	0.14	0.06	0.04	0.02
KHHR	Hawthorne Airport	3.25	1.05	0.80	0.59	0.23	0.12	0.06	0.03
KLAX	Los Angeles Int'l Airport	4.18	1.45	1.10	0.83	0.34	0.17	0.09	0.05
KLGB	Long Beach Airport	2.61	0.80	0.55	0.40	0.16	0.08	0.05	0.04
KONT	Ontario Airport	4.06	1.33	0.97	0.72	0.30	0.15	0.09	0.05
KPSP	Palm Springs Airport	4.28	1.36	0.92	0.67	0.27	0.14	0.08	0.05
KRAL	Riverside Airport	1.07	0.54	0.49	0.40	0.19	0.11	0.07	0.05
KSMO	Santa Monica Airport	4.21	1.28	0.92	0.67	0.24	0.11	0.06	0.03
KSNA	John Wayne Int'l Airport	3.98	1.28	0.87	0.63	0.22	0.10	0.05	0.03
KTRM	Desert Hot Springs Airport	3.54	1.23	0.85	0.62	0.25	0.13	0.08	0.05
KVNY	Van Nuys Airport	2.36	0.79	0.55	0.40	0.15	0.07	0.04	0.03

Table 8.5 A – χ/Q for Natural Gas Boilers

30 < Rating (MMBTU/hr) \leq 50

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.42	0.37	0.38	0.34	0.16	0.09	0.04	0.01
BNAP	Banning	3.63	1.28	1.08	0.86	0.34	0.16	0.06	0.02
CELA	Central L.A.	1.41	0.67	0.59	0.47	0.19	0.09	0.04	0.01
ELSI	Lake Elsinore	0.63	0.39	0.36	0.31	0.14	0.07	0.03	0.01
FONT	Fontana	2.04	0.83	0.73	0.59	0.25	0.12	0.05	0.01
MSVJ	Mission Viejo	0.59	0.38	0.38	0.33	0.15	0.08	0.03	0.01
PERI	Perris	2.11	0.82	0.65	0.51	0.20	0.10	0.04	0.01
PICO	Pico Rivera	2.33	0.91	0.74	0.57	0.22	0.11	0.04	0.01
RDLD	Redlands	0.37	0.35	0.38	0.34	0.17	0.09	0.04	0.01
UPLA	Upland	1.18	0.60	0.60	0.52	0.24	0.13	0.05	0.01
KBUR	Burbank Airport	2.39	0.95	0.82	0.68	0.29	0.15	0.06	0.02
KCNO	Chino Airport.	3.16	1.19	0.95	0.76	0.31	0.15	0.06	0.02
KCQT	USC/Downtown L.A.	0.21	0.30	0.35	0.33	0.18	0.10	0.04	0.01
KFUL	Fullerton Airport	2.96	1.12	0.91	0.70	0.27	0.13	0.05	0.01
KHHR	Hawthorne Airport	4.44	1.60	1.33	1.03	0.39	0.18	0.07	0.02
KLAX	Los Angeles Int'l Airport	5.13	1.98	1.65	1.32	0.53	0.25	0.10	0.03
KLGB	Long Beach Airport	2.10	0.84	0.71	0.58	0.26	0.13	0.05	0.01
KONT	Ontario Airport	3.50	1.30	1.08	0.87	0.37	0.18	0.07	0.02
KPSP	Palm Springs Airport	1.84	0.69	0.54	0.43	0.19	0.10	0.04	0.01
KRAL	Riverside Airport	1.01	0.61	0.65	0.59	0.29	0.15	0.06	0.02
KSMO	Santa Monica Airport	6.54	2.14	1.64	1.23	0.44	0.20	0.08	0.02
KSNA	John Wayne Int'l Airport	5.49	1.92	1.43	1.07	0.39	0.18	0.07	0.02
KTRM	Desert Hot Springs Airport	2.88	1.06	0.85	0.69	0.29	0.14	0.06	0.02
KVNY	Van Nuys Airport	3.09	1.15	0.89	0.69	0.27	0.13	0.05	0.01

Table 8.5 B – χ/Q for Natural Gas Boilers

30 < Rating (MMBTU/hr) \leq 50

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.48	0.19	0.16	0.14	0.08	0.05	0.03	0.02
BNAP	Banning	2.98	0.92	0.69	0.53	0.23	0.14	0.09	0.06
CELA	Central L.A.	0.59	0.27	0.24	0.20	0.09	0.05	0.03	0.02
ELSI	Lake Elsinore	0.31	0.17	0.15	0.13	0.06	0.04	0.02	0.02
FONT	Fontana	1.38	0.48	0.39	0.31	0.13	0.07	0.04	0.03
MSVJ	Mission Viejo	0.24	0.15	0.15	0.13	0.06	0.04	0.02	0.01
PERI	Perris	1.26	0.45	0.34	0.26	0.11	0.06	0.03	0.02
PICO	Pico Rivera	1.21	0.43	0.34	0.26	0.10	0.05	0.03	0.02
RDLD	Redlands	0.17	0.15	0.16	0.14	0.08	0.05	0.03	0.03
UPLA	Upland	0.69	0.30	0.28	0.24	0.12	0.07	0.04	0.03
KBUR	Burbank Airport	1.41	0.48	0.38	0.31	0.13	0.07	0.04	0.02
KCNO	Chino Airport.	2.30	0.80	0.60	0.46	0.19	0.10	0.05	0.03
KCQT	USC/Downtown L.A.	0.13	0.12	0.14	0.14	0.08	0.05	0.03	0.02
KFUL	Fullerton Airport	1.24	0.46	0.37	0.29	0.11	0.05	0.03	0.02
KHHR	Hawthorne Airport	2.25	0.75	0.60	0.47	0.19	0.10	0.05	0.03
KLAX	Los Angeles Int'l Airport	2.90	1.05	0.82	0.65	0.27	0.14	0.07	0.04
KLGB	Long Beach Airport	1.81	0.57	0.40	0.30	0.11	0.06	0.03	0.03
KONT	Ontario Airport	2.81	0.94	0.70	0.54	0.22	0.11	0.06	0.04
KPSP	Palm Springs Airport	3.20	1.04	0.72	0.53	0.21	0.11	0.06	0.04
KRAL	Riverside Airport	0.61	0.32	0.32	0.29	0.15	0.08	0.05	0.03
KSMO	Santa Monica Airport	2.88	0.92	0.70	0.52	0.19	0.09	0.04	0.02
KSNA	John Wayne Int'l Airport	2.82	0.94	0.67	0.49	0.18	0.08	0.04	0.02
KTRM	Desert Hot Springs Airport	2.66	0.95	0.66	0.48	0.19	0.10	0.06	0.04
KVNY	Van Nuys Airport	1.60	0.55	0.41	0.31	0.12	0.06	0.03	0.02

Table 8.6 A – χ/Q for Natural Gas Boilers

50 < Rating (MMBTU/hr) \leq 150

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.06	0.15	0.19	0.20	0.13	0.08	0.04	0.01
BNAP	Banning	0.00	0.02	0.09	0.17	0.20	0.13	0.06	0.02
CELA	Central L.A.	0.04	0.13	0.18	0.21	0.14	0.08	0.03	0.01
ELSI	Lake Elsinore	0.08	0.14	0.16	0.16	0.10	0.06	0.03	0.01
FONT	Fontana	0.03	0.09	0.16	0.20	0.17	0.10	0.05	0.01
MSVJ	Mission Viejo	0.03	0.10	0.15	0.17	0.12	0.07	0.03	0.01
PERI	Perris	0.08	0.11	0.14	0.16	0.13	0.08	0.04	0.01
PICO	Pico Rivera	0.03	0.11	0.17	0.21	0.15	0.09	0.04	0.01
RDLD	Redlands	0.07	0.14	0.19	0.20	0.14	0.08	0.04	0.01
UPLA	Upland	0.03	0.10	0.18	0.23	0.18	0.11	0.05	0.01
KBUR	Burbank Airport	0.03	0.09	0.14	0.19	0.19	0.12	0.06	0.02
KCNO	Chino Airport.	0.02	0.06	0.10	0.15	0.18	0.12	0.05	0.02
KCQT	USC/Downtown L.A.	0.05	0.14	0.19	0.20	0.15	0.09	0.04	0.01
KFUL	Fullerton Airport	0.03	0.10	0.17	0.21	0.17	0.10	0.05	0.01
KHHR	Hawthorne Airport	0.02	0.08	0.17	0.25	0.24	0.15	0.06	0.02
KLAX	Los Angeles Int'l Airport	0.01	0.04	0.12	0.21	0.28	0.19	0.09	0.03
KLGB	Long Beach Airport	0.02	0.07	0.13	0.17	0.17	0.11	0.05	0.01
KONT	Ontario Airport	0.01	0.06	0.11	0.17	0.21	0.14	0.07	0.02
KPSP	Palm Springs Airport	0.02	0.06	0.11	0.14	0.13	0.08	0.04	0.01
KRAL	Riverside Airport	0.02	0.07	0.14	0.19	0.19	0.13	0.06	0.02
KSMO	Santa Monica Airport	0.01	0.08	0.18	0.26	0.25	0.16	0.07	0.02
KSNA	John Wayne Int'l Airport	0.02	0.07	0.14	0.20	0.22	0.14	0.06	0.02
KTRM	Desert Hot Springs Airport	0.01	0.05	0.09	0.14	0.16	0.11	0.05	0.01
KVNY	Van Nuys Airport	0.03	0.08	0.13	0.16	0.16	0.10	0.05	0.01

Table 8.6 B – χ/Q for Natural Gas Boilers

50 < Rating (MMBTU/hr) \leq 150

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.03	0.07	0.08	0.08	0.06	0.04	0.02	0.01
BNAP	Banning	0.00	0.01	0.04	0.08	0.10	0.07	0.05	0.03
CELA	Central L.A.	0.02	0.05	0.07	0.08	0.06	0.04	0.02	0.01
ELSI	Lake Elsinore	0.04	0.06	0.07	0.06	0.04	0.03	0.02	0.01
FONT	Fontana	0.02	0.04	0.07	0.08	0.07	0.05	0.03	0.02
MSVJ	Mission Viejo	0.02	0.04	0.06	0.07	0.05	0.03	0.01	0.01
PERI	Perris	0.04	0.05	0.06	0.06	0.06	0.04	0.02	0.01
PICO	Pico Rivera	0.02	0.05	0.07	0.08	0.06	0.04	0.02	0.01
RDLD	Redlands	0.04	0.06	0.08	0.08	0.06	0.04	0.02	0.02
UPLA	Upland	0.02	0.05	0.07	0.09	0.08	0.05	0.03	0.02
KBUR	Burbank Airport	0.01	0.04	0.06	0.08	0.08	0.05	0.03	0.01
KCNO	Chino Airport.	0.01	0.03	0.04	0.06	0.08	0.06	0.03	0.02
KCQT	USC/Downtown L.A.	0.02	0.06	0.08	0.08	0.06	0.04	0.02	0.01
KFUL	Fullerton Airport	0.01	0.05	0.07	0.08	0.07	0.04	0.02	0.01
KHHR	Hawthorne Airport	0.01	0.04	0.07	0.10	0.10	0.07	0.04	0.02
KLAX	Los Angeles Int'l Airport	0.00	0.02	0.05	0.09	0.12	0.09	0.05	0.02
KLGB	Long Beach Airport	0.01	0.03	0.05	0.07	0.06	0.04	0.02	0.01
KONT	Ontario Airport	0.01	0.03	0.05	0.07	0.09	0.07	0.04	0.02
KPSP	Palm Springs Airport	0.01	0.03	0.04	0.06	0.08	0.06	0.04	0.02
KRAL	Riverside Airport	0.01	0.03	0.06	0.08	0.09	0.06	0.03	0.02
KSMO	Santa Monica Airport	0.01	0.03	0.07	0.10	0.10	0.07	0.03	0.01
KSNA	John Wayne Int'l Airport	0.01	0.03	0.06	0.08	0.09	0.06	0.03	0.01
KTRM	Desert Hot Springs Airport	0.00	0.02	0.04	0.05	0.06	0.05	0.04	0.02
KVNY	Van Nuys Airport	0.01	0.04	0.06	0.07	0.06	0.04	0.02	0.01

Table 8.7 A – χ/Q for Natural Gas Boilers

150 < Rating (MMBTU/hr) \leq 200

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.03	0.07	0.10	0.11	0.09	0.06	0.03	0.01
BNAP	Banning	0.00	0.01	0.03	0.07	0.12	0.09	0.05	0.01
CELA	Central L.A.	0.02	0.06	0.09	0.10	0.09	0.06	0.03	0.01
ELSI	Lake Elsinore	0.04	0.07	0.08	0.09	0.07	0.05	0.02	0.01
FONT	Fontana	0.01	0.04	0.07	0.10	0.11	0.08	0.04	0.01
MSVJ	Mission Viejo	0.01	0.05	0.07	0.09	0.08	0.05	0.03	0.01
PERI	Perris	0.03	0.05	0.07	0.08	0.08	0.06	0.03	0.01
PICO	Pico Rivera	0.01	0.05	0.09	0.11	0.10	0.07	0.03	0.01
RDLD	Redlands	0.03	0.06	0.09	0.11	0.09	0.06	0.03	0.01
UPLA	Upland	0.01	0.04	0.08	0.11	0.12	0.08	0.04	0.01
KBUR	Burbank Airport	0.01	0.04	0.07	0.09	0.12	0.09	0.05	0.01
KCNO	Chino Airport.	0.01	0.03	0.05	0.07	0.10	0.08	0.04	0.01
KCQT	USC/Downtown L.A.	0.02	0.07	0.10	0.11	0.10	0.07	0.03	0.01
KFUL	Fullerton Airport	0.01	0.05	0.08	0.11	0.11	0.08	0.04	0.01
KHHR	Hawthorne Airport	0.01	0.04	0.07	0.11	0.16	0.11	0.06	0.02
KLAX	Los Angeles Int'l Airport	0.00	0.02	0.05	0.09	0.17	0.14	0.07	0.02
KLGB	Long Beach Airport	0.01	0.04	0.06	0.09	0.11	0.08	0.04	0.01
KONT	Ontario Airport	0.01	0.03	0.05	0.08	0.13	0.10	0.05	0.02
KPSP	Palm Springs Airport	0.01	0.03	0.05	0.07	0.08	0.06	0.03	0.01
KRAL	Riverside Airport	0.01	0.03	0.06	0.09	0.12	0.09	0.05	0.01
KSMO	Santa Monica Airport	0.00	0.03	0.08	0.12	0.16	0.12	0.06	0.02
KSNA	John Wayne Int'l Airport	0.01	0.03	0.06	0.10	0.13	0.10	0.05	0.02
KTRM	Desert Hot Springs Airport	0.00	0.02	0.04	0.06	0.10	0.08	0.04	0.01
KVNY	Van Nuys Airport	0.01	0.04	0.07	0.08	0.10	0.08	0.04	0.01

Table 8.7 B – χ/Q for Natural Gas Boilers

150 < Rating (MMBTU/hr) \leq 200

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.01	0.03	0.04	0.04	0.04	0.03	0.01	0.01
BNAP	Banning	0.00	0.01	0.02	0.03	0.06	0.04	0.03	0.02
CELA	Central L.A.	0.01	0.03	0.03	0.04	0.04	0.03	0.01	0.01
ELSI	Lake Elsinore	0.02	0.03	0.03	0.03	0.03	0.02	0.01	0.01
FONT	Fontana	0.01	0.02	0.03	0.04	0.05	0.03	0.02	0.01
MSVJ	Mission Viejo	0.01	0.02	0.03	0.03	0.03	0.02	0.01	0.00
PERI	Perris	0.02	0.02	0.03	0.03	0.03	0.03	0.02	0.01
PICO	Pico Rivera	0.01	0.02	0.04	0.04	0.04	0.03	0.01	0.01
RDLD	Redlands	0.02	0.03	0.04	0.04	0.04	0.03	0.02	0.01
UPLA	Upland	0.01	0.02	0.03	0.04	0.05	0.04	0.02	0.01
KBUR	Burbank Airport	0.01	0.02	0.03	0.04	0.05	0.04	0.02	0.01
KCNO	Chino Airport.	0.00	0.01	0.02	0.03	0.04	0.04	0.02	0.01
KCQT	USC/Downtown L.A.	0.01	0.03	0.04	0.05	0.04	0.03	0.02	0.01
KFUL	Fullerton Airport	0.01	0.02	0.03	0.04	0.04	0.03	0.02	0.01
KHHR	Hawthorne Airport	0.00	0.02	0.03	0.04	0.06	0.05	0.03	0.01
KLAX	Los Angeles Int'l Airport	0.00	0.01	0.02	0.04	0.07	0.06	0.03	0.01
KLGB	Long Beach Airport	0.00	0.02	0.03	0.03	0.04	0.03	0.02	0.01
KONT	Ontario Airport	0.00	0.01	0.02	0.03	0.05	0.04	0.03	0.01
KPSP	Palm Springs Airport	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.01
KRAL	Riverside Airport	0.00	0.02	0.03	0.04	0.05	0.04	0.02	0.01
KSMO	Santa Monica Airport	0.00	0.02	0.03	0.05	0.06	0.05	0.03	0.01
KSNA	John Wayne Int'l Airport	0.00	0.02	0.03	0.04	0.05	0.04	0.02	0.01
KTRM	Desert Hot Springs Airport	0.00	0.01	0.02	0.03	0.04	0.03	0.02	0.01
KVNY	Van Nuys Airport	0.01	0.02	0.03	0.04	0.04	0.03	0.02	0.01

Table 8.8 – χ/Q for Natural Gas Boilers

All Operating Conditions

**Acute Hazard Index
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{lb}/\text{hr}]$)**

Rating (MMBTU/hr)	Downwind Distance (meters)							
	25	50	75	100	200	300	500	1000
2 < Rating \leq 5	246.77	77.10	64.07	55.15	24.90	11.86	6.16	2.89
5 < Rating \leq 10	176.34	52.72	41.10	35.06	15.72	6.62	3.69	2.43
10 < Rating \leq 20	146.20	45.42	34.41	28.20	12.56	5.80	3.10	1.91
20 < Rating \leq 30	100.89	31.91	25.44	20.43	9.54	4.48	2.52	1.25
30 < Rating \leq 50	83.84	27.57	21.80	17.40	7.80	3.93	2.21	1.10
50 < Rating \leq 150	7.32	3.85	4.74	4.48	3.30	2.50	1.62	0.82
150 < Rating \leq 200	3.82	2.50	2.65	3.12	2.44	1.85	1.21	0.61

Table 9.0 – χ/Q for Natural Gas Internal Combustion Engines

Equipment Type	Equipment Rating (BHP)	Cancer, Chronic, Chronic 8 Hr χ/Q Tables		Acute χ/Q Table	Source ID
		≤ 12 hr/day	> 12 hr/day		
Natural Gas Reciprocating Internal Combustion Engines	$50 < \text{Rating} \leq 75$	Table 9.1 A	Table 9.1 B	Table 9.6	N1
	$75 < \text{Rating} \leq 150$	Table 9.2 A	Table 9.2 B		N2
	$150 < \text{Rating} \leq 250$	Table 9.3 A	Table 9.3 B		N3
	$250 < \text{Rating} \leq 1000$	Table 9.4 A	Table 9.4 B		N4
	Rating > 1000	Table 9.5 A	Table 9.5 B		N5

Table 9.1 A – χ/Q for Natural Gas Internal Combustion Engines

50 < Rating (BHP) \leq 75

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	32.01	7.57	3.93	2.24	0.42	0.14	0.05	0.01
BNAP	Banning	38.68	8.93	4.76	2.83	0.64	0.24	0.08	0.02
CELA	Central L.A.	32.26	7.30	3.64	2.06	0.41	0.14	0.05	0.01
ELSI	Lake Elsinore	21.77	5.76	2.98	1.69	0.34	0.12	0.04	0.01
FONT	Fontana	37.79	8.52	4.46	2.59	0.53	0.19	0.06	0.02
MSVJ	Mission Viejo	24.52	6.22	3.24	1.83	0.35	0.13	0.04	0.01
PERI	Perris	22.74	5.86	3.14	1.86	0.41	0.16	0.05	0.01
PICO	Pico Rivera	34.27	7.79	3.97	2.29	0.45	0.16	0.05	0.01
RDLD	Redlands	30.36	7.78	4.02	2.26	0.43	0.15	0.05	0.01
UPLA	Upland	40.22	9.05	4.80	2.80	0.56	0.20	0.07	0.02
KBUR	Burbank Airport	42.23	9.05	4.73	2.78	0.58	0.22	0.07	0.02
KCNO	Chino Airport.	31.86	8.21	4.49	2.68	0.61	0.23	0.07	0.02
KCQT	USC/Downtown L.A.	32.55	8.50	4.54	2.63	0.51	0.18	0.06	0.01
KFUL	Fullerton Airport	36.73	8.24	4.38	2.58	0.54	0.19	0.06	0.02
KHHR	Hawthorne Airport	48.48	10.62	5.69	3.38	0.74	0.26	0.09	0.02
KLAX	Los Angeles Int'l Airport	54.50	12.46	7.05	4.40	1.06	0.38	0.12	0.03
KLGB	Long Beach Airport	34.78	7.80	4.20	2.53	0.55	0.21	0.07	0.02
KONT	Ontario Airport	42.30	9.97	5.50	3.33	0.75	0.28	0.09	0.02
KPSP	Palm Springs Airport	26.05	6.19	3.34	1.97	0.42	0.15	0.05	0.01
KRAL	Riverside Airport	37.51	9.69	5.28	3.13	0.67	0.24	0.08	0.02
KSMO	Santa Monica Airport	53.59	11.42	6.22	3.77	0.84	0.30	0.10	0.02
KSNA	John Wayne Int'l Airport	42.99	10.05	5.34	3.23	0.71	0.27	0.09	0.02
KTRM	Desert Hot Springs Airport	30.67	7.76	4.36	2.71	0.63	0.24	0.08	0.02
KVNY	Van Nuys Airport	31.64	7.53	4.00	2.35	0.51	0.19	0.06	0.01

Table 9.1 B – χ/Q for Natural Gas Internal Combustion Engines

50 < Rating (BHP) \leq 75

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	22.16	6.82	4.89	3.63	1.20	0.42	0.14	0.04
BNAP	Banning	43.66	12.89	8.19	5.78	1.99	0.81	0.31	0.10
CELA	Central L.A.	19.50	6.05	4.26	3.23	1.07	0.37	0.13	0.04
ELSI	Lake Elsinore	12.04	4.14	3.20	2.55	1.00	0.43	0.17	0.06
FONT	Fontana	29.32	8.35	5.59	4.07	1.40	0.56	0.20	0.07
MSVJ	Mission Viejo	15.67	4.80	3.43	2.58	0.94	0.39	0.16	0.05
PERI	Perris	17.73	5.68	3.96	2.98	1.10	0.49	0.20	0.07
PICO	Pico Rivera	24.75	7.29	4.75	3.36	1.02	0.39	0.14	0.04
RDLD	Redlands	18.17	5.69	4.08	3.59	1.65	0.60	0.19	0.07
UPLA	Upland	26.65	7.41	5.23	3.89	1.34	0.50	0.18	0.06
KBUR	Burbank Airport	28.06	7.33	4.55	3.15	0.98	0.43	0.17	0.05
KCNO	Chino Airport.	26.01	7.66	4.94	3.52	1.29	0.58	0.23	0.07
KCQT	USC/Downtown L.A.	22.13	7.25	5.46	4.24	1.49	0.53	0.17	0.06
KFUL	Fullerton Airport	21.21	5.92	3.97	2.78	0.87	0.37	0.15	0.05
KHHR	Hawthorne Airport	31.43	8.47	5.39	3.76	1.18	0.48	0.18	0.06
KLAX	Los Angeles Int'l Airport	38.21	10.48	6.77	4.74	1.57	0.66	0.25	0.08
KLGB	Long Beach Airport	23.38	7.52	5.20	3.89	1.46	0.62	0.23	0.08
KONT	Ontario Airport	37.07	10.63	6.93	4.96	1.75	0.77	0.30	0.10
KPSP	Palm Springs Airport	27.17	8.69	5.66	4.07	1.42	0.62	0.24	0.08
KRAL	Riverside Airport	26.33	8.71	6.06	4.53	1.68	0.69	0.26	0.09
KSMO	Santa Monica Airport	31.42	8.49	5.53	3.88	1.23	0.49	0.18	0.06
KSNA	John Wayne Int'l Airport	30.25	8.70	5.44	3.86	1.30	0.56	0.22	0.07
KTRM	Desert Hot Springs Airport	29.98	9.53	6.26	4.52	1.67	0.77	0.31	0.10
KVNY	Van Nuys Airport	21.17	6.18	4.01	2.88	1.03	0.45	0.18	0.06

Table 9.2 A – χ/Q for Natural Gas Internal Combustion Engines

75 < Rating (BHP) ≤ 150

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	18.85	5.64	3.29	1.98	0.40	0.14	0.05	0.01
BNAP	Banning	28.35	7.32	4.20	2.60	0.62	0.23	0.08	0.02
CELA	Central L.A.	21.69	5.72	3.17	1.86	0.39	0.13	0.04	0.01
ELSI	Lake Elsinore	12.22	3.98	2.35	1.42	0.31	0.11	0.04	0.01
FONT	Fontana	24.88	6.53	3.80	2.32	0.50	0.18	0.06	0.02
MSVJ	Mission Viejo	15.29	4.65	2.71	1.61	0.33	0.12	0.04	0.01
PERI	Perris	15.28	4.46	2.63	1.64	0.39	0.15	0.05	0.01
PICO	Pico Rivera	23.33	6.12	3.43	2.06	0.43	0.16	0.05	0.01
RDLD	Redlands	17.36	5.69	3.34	2.00	0.40	0.14	0.05	0.01
UPLA	Upland	25.63	6.85	4.07	2.50	0.53	0.19	0.06	0.02
KBUR	Burbank Airport	29.72	7.24	4.12	2.53	0.55	0.21	0.07	0.02
KCNO	Chino Airport.	22.67	6.48	3.87	2.42	0.58	0.22	0.07	0.02
KCQT	USC/Downtown L.A.	18.61	6.14	3.75	2.30	0.48	0.17	0.06	0.01
KFUL	Fullerton Airport	25.25	6.52	3.79	2.33	0.51	0.18	0.06	0.02
KHHR	Hawthorne Airport	35.00	8.65	5.00	3.10	0.71	0.25	0.08	0.02
KLAX	Los Angeles Int'l Airport	40.38	10.34	6.22	4.01	1.01	0.37	0.12	0.03
KLGB	Long Beach Airport	24.49	6.18	3.63	2.28	0.52	0.20	0.07	0.02
KONT	Ontario Airport	30.05	7.88	4.75	3.01	0.72	0.27	0.09	0.02
KPSP	Palm Springs Airport	17.02	4.67	2.82	1.76	0.40	0.15	0.05	0.01
KRAL	Riverside Airport	24.45	7.35	4.47	2.80	0.64	0.23	0.08	0.02
KSMO	Santa Monica Airport	39.13	9.30	5.44	3.42	0.80	0.29	0.10	0.02
KSNA	John Wayne Int'l Airport	31.67	8.18	4.68	2.94	0.68	0.26	0.09	0.02
KTRM	Desert Hot Springs Airport	21.60	6.03	3.70	2.40	0.59	0.23	0.08	0.02
KVNY	Van Nuys Airport	22.59	5.99	3.46	2.13	0.49	0.18	0.06	0.01

Table 9.2 B – χ/Q for Natural Gas Internal Combustion Engines

75 < Rating (BHP) ≤ 150

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	12.22	3.59	2.54	1.93	0.78	0.35	0.14	0.05
BNAP	Banning	30.57	8.89	5.80	4.17	1.61	0.73	0.31	0.11
CELA	Central L.A.	12.22	3.33	2.36	1.79	0.69	0.29	0.11	0.04
ELSI	Lake Elsinore	6.74	2.15	1.40	1.00	0.53	0.31	0.16	0.06
FONT	Fontana	18.53	5.10	3.37	2.46	0.97	0.45	0.20	0.07
MSVJ	Mission Viejo	8.68	2.56	1.68	1.22	0.51	0.28	0.14	0.05
PERI	Perris	11.26	3.42	2.24	1.64	0.70	0.36	0.17	0.06
PICO	Pico Rivera	15.68	4.33	2.78	2.01	0.74	0.34	0.15	0.05
RDLD	Redlands	9.95	3.19	2.18	1.62	0.71	0.37	0.20	0.08
UPLA	Upland	16.40	4.42	3.01	2.22	0.92	0.41	0.20	0.08
KBUR	Burbank Airport	19.32	5.12	3.18	2.21	0.75	0.36	0.16	0.05
KCNO	Chino Airport.	18.12	5.29	3.43	2.43	0.96	0.47	0.21	0.07
KCQT	USC/Downtown L.A.	11.71	3.70	2.77	2.20	0.98	0.44	0.19	0.07
KFUL	Fullerton Airport	13.94	3.75	2.43	1.71	0.62	0.30	0.13	0.05
KHHR	Hawthorne Airport	21.65	5.72	3.61	2.53	0.91	0.41	0.17	0.06
KLAX	Los Angeles Int'l Airport	27.40	7.64	4.99	3.54	1.27	0.57	0.24	0.08
KLGB	Long Beach Airport	16.09	4.91	3.36	2.52	1.06	0.51	0.22	0.08
KONT	Ontario Airport	26.10	7.49	5.00	3.62	1.37	0.65	0.28	0.10
KPSP	Palm Springs Airport	19.94	6.33	4.17	3.03	1.14	0.54	0.23	0.08
KRAL	Riverside Airport	16.52	5.34	3.72	2.81	1.19	0.56	0.24	0.09
KSMO	Santa Monica Airport	21.93	5.76	3.72	2.65	0.94	0.41	0.17	0.06
KSNA	John Wayne Int'l Airport	21.48	6.12	3.83	2.72	0.99	0.47	0.20	0.07
KTRM	Desert Hot Springs Airport	21.32	6.64	4.46	3.26	1.30	0.65	0.29	0.10
KVNY	Van Nuys Airport	14.56	4.18	2.64	1.90	0.74	0.36	0.16	0.06

Table 9.3 A – χ/Q for Natural Gas Internal Combustion Engines

150 < Rating (BHP) \leq 250

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	8.43	3.18	2.05	1.40	0.34	0.12	0.04	0.01
BNAP	Banning	19.24	5.22	3.13	2.13	0.56	0.21	0.07	0.02
CELA	Central L.A.	11.92	3.71	2.23	1.45	0.34	0.12	0.04	0.01
ELSI	Lake Elsinore	5.37	2.04	1.35	0.95	0.25	0.10	0.04	0.01
FONT	Fontana	14.04	4.11	2.56	1.76	0.44	0.16	0.06	0.01
MSVJ	Mission Viejo	7.16	2.65	1.69	1.13	0.27	0.11	0.04	0.01
PERI	Perris	9.31	2.90	1.80	1.25	0.34	0.13	0.05	0.01
PICO	Pico Rivera	13.37	4.02	2.39	1.59	0.37	0.14	0.05	0.01
RDLD	Redlands	7.44	3.09	2.02	1.39	0.34	0.13	0.05	0.01
UPLA	Upland	13.49	4.19	2.70	1.88	0.46	0.17	0.06	0.02
KBUR	Burbank Airport	18.60	4.99	2.97	2.02	0.49	0.20	0.07	0.02
KCNO	Chino Airport.	14.96	4.39	2.72	1.89	0.52	0.20	0.07	0.02
KCQT	USC/Downtown L.A.	7.49	3.28	2.25	1.62	0.41	0.15	0.05	0.01
KFUL	Fullerton Airport	14.84	4.33	2.67	1.82	0.46	0.17	0.06	0.02
KHHR	Hawthorne Airport	23.33	6.09	3.70	2.52	0.65	0.24	0.08	0.02
KLAX	Los Angeles Int'l Airport	28.10	7.53	4.67	3.26	0.92	0.35	0.12	0.03
KLGB	Long Beach Airport	15.05	4.20	2.58	1.80	0.46	0.18	0.07	0.02
KONT	Ontario Airport	18.98	5.30	3.33	2.34	0.64	0.25	0.09	0.02
KPSP	Palm Springs Airport	9.13	2.81	1.85	1.31	0.35	0.13	0.05	0.01
KRAL	Riverside Airport	13.23	4.44	2.91	2.08	0.56	0.21	0.08	0.02
KSMO	Santa Monica Airport	25.80	6.65	4.04	2.78	0.73	0.27	0.09	0.02
KSNA	John Wayne Int'l Airport	21.15	5.89	3.47	2.38	0.62	0.24	0.08	0.02
KTRM	Desert Hot Springs Airport	7.55	2.50	1.75	1.31	0.43	0.18	0.07	0.02
KVNY	Van Nuys Airport	7.43	2.47	1.66	1.18	0.36	0.15	0.06	0.01

Table 9.3 B – χ/Q for Natural Gas Internal Combustion Engines

150 < Rating (BHP) ≤ 250

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	4.94	1.62	1.08	0.82	0.33	0.18	0.10	0.05
BNAP	Banning	19.11	5.27	3.14	2.34	1.00	0.52	0.25	0.10
CELA	Central L.A.	6.17	1.77	1.13	0.84	0.32	0.16	0.09	0.04
ELSI	Lake Elsinore	3.02	1.04	0.68	0.50	0.18	0.12	0.09	0.05
FONT	Fontana	9.83	2.71	1.67	1.23	0.47	0.25	0.14	0.06
MSVJ	Mission Viejo	3.53	1.21	0.76	0.54	0.17	0.11	0.08	0.04
PERI	Perris	6.37	1.92	1.17	0.85	0.32	0.18	0.11	0.05
PICO	Pico Rivera	8.17	2.31	1.35	0.98	0.35	0.19	0.11	0.04
RDLD	Redlands	4.02	1.49	0.99	0.74	0.29	0.16	0.13	0.08
UPLA	Upland	8.13	2.30	1.48	1.12	0.43	0.23	0.13	0.07
KBUR	Burbank Airport	11.54	3.09	1.80	1.29	0.42	0.21	0.11	0.05
KCNO	Chino Airport.	11.55	3.27	2.01	1.47	0.54	0.28	0.15	0.06
KCQT	USC/Downtown L.A.	4.01	1.54	1.08	0.86	0.37	0.21	0.13	0.06
KFUL	Fullerton Airport	7.48	2.10	1.27	0.91	0.30	0.15	0.09	0.04
KHHR	Hawthorne Airport	13.15	3.43	2.05	1.46	0.53	0.26	0.13	0.05
KLAX	Los Angeles Int'l Airport	17.84	4.86	3.01	2.20	0.81	0.39	0.18	0.07
KLGB	Long Beach Airport	9.44	2.75	1.68	1.27	0.52	0.27	0.15	0.07
KONT	Ontario Airport	16.09	4.49	2.79	2.08	0.81	0.41	0.20	0.09
KPSP	Palm Springs Airport	13.17	4.05	2.48	1.83	0.70	0.35	0.17	0.07
KRAL	Riverside Airport	8.38	2.75	1.78	1.36	0.58	0.31	0.17	0.08
KSMO	Santa Monica Airport	13.30	3.51	2.13	1.54	0.53	0.25	0.12	0.05
KSNA	John Wayne Int'l Airport	13.17	3.73	2.15	1.56	0.53	0.26	0.14	0.06
KTRM	Desert Hot Springs Airport	13.12	4.02	2.48	1.84	0.74	0.38	0.21	0.09
KVNY	Van Nuys Airport	8.45	2.45	1.43	1.03	0.36	0.19	0.10	0.05

Table 9.4 A – χ/Q for Natural Gas Internal Combustion Engines

250 < Rating (BHP) ≤ 1000

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	3.68	1.73	1.25	0.87	0.26	0.11	0.04	0.01
BNAP	Banning	11.81	3.53	2.28	1.55	0.49	0.19	0.07	0.02
CELA	Central L.A.	6.24	2.20	1.47	0.99	0.28	0.11	0.04	0.01
ELSI	Lake Elsinore	2.65	1.11	0.82	0.59	0.20	0.09	0.03	0.01
FONT	Fontana	7.72	2.51	1.71	1.18	0.36	0.15	0.05	0.01
MSVJ	Mission Viejo	3.40	1.43	1.02	0.71	0.22	0.09	0.03	0.01
PERI	Perris	5.73	1.88	1.25	0.87	0.28	0.12	0.04	0.01
PICO	Pico Rivera	7.61	2.51	1.62	1.08	0.31	0.12	0.05	0.01
RDLD	Redlands	3.13	1.64	1.21	0.86	0.27	0.11	0.04	0.01
UPLA	Upland	6.86	2.49	1.77	1.23	0.38	0.15	0.06	0.02
KBUR	Burbank Airport	11.19	3.29	2.11	1.43	0.42	0.17	0.07	0.02
KCNO	Chino Airport.	9.49	2.94	1.94	1.35	0.44	0.18	0.07	0.02
KCQT	USC/Downtown L.A.	3.16	1.75	1.35	0.98	0.32	0.13	0.05	0.01
KFUL	Fullerton Airport	8.54	2.74	1.83	1.26	0.38	0.15	0.05	0.01
KHHR	Hawthorne Airport	14.22	4.11	2.69	1.84	0.56	0.21	0.08	0.02
KLAX	Los Angeles Int'l Airport	17.73	5.19	3.41	2.37	0.78	0.31	0.11	0.03
KLGB	Long Beach Airport	8.99	2.78	1.83	1.26	0.39	0.16	0.06	0.02
KONT	Ontario Airport	11.52	3.49	2.33	1.63	0.54	0.22	0.08	0.02
KPSP	Palm Springs Airport	4.96	1.69	1.22	0.88	0.29	0.12	0.04	0.01
KRAL	Riverside Airport	6.99	2.67	1.92	1.38	0.46	0.19	0.07	0.02
KSMO	Santa Monica Airport	16.42	4.59	2.96	2.02	0.62	0.24	0.09	0.02
KSNA	John Wayne Int'l Airport	13.61	4.08	2.54	1.73	0.53	0.22	0.08	0.02
KTRM	Desert Hot Springs Airport	8.16	2.61	1.77	1.26	0.43	0.18	0.07	0.02
KVNY	Van Nuys Airport	8.52	2.69	1.74	1.19	0.37	0.15	0.06	0.01

Table 9.4 B – χ/Q for Natural Gas Internal Combustion Engines

250 < Rating (BHP) ≤ 1000

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	2.12	0.83	0.60	0.43	0.17	0.08	0.06	0.03
BNAP	Banning	11.39	3.21	1.96	1.32	0.60	0.33	0.18	0.08
CELA	Central L.A.	3.12	1.01	0.71	0.49	0.18	0.08	0.05	0.03
ELSI	Lake Elsinore	1.50	0.55	0.40	0.29	0.11	0.05	0.04	0.03
FONT	Fontana	5.32	1.55	1.01	0.69	0.27	0.14	0.08	0.05
MSVJ	Mission Viejo	1.58	0.62	0.43	0.30	0.10	0.05	0.04	0.03
PERI	Perris	3.77	1.17	0.74	0.51	0.19	0.10	0.06	0.03
PICO	Pico Rivera	4.45	1.33	0.82	0.56	0.20	0.10	0.06	0.03
RDLD	Redlands	1.71	0.77	0.57	0.41	0.16	0.08	0.06	0.05
UPLA	Upland	4.12	1.30	0.90	0.64	0.25	0.12	0.08	0.05
KBUR	Burbank Airport	6.72	1.89	1.15	0.77	0.26	0.12	0.07	0.03
KCNO	Chino Airport.	7.21	2.12	1.34	0.92	0.35	0.17	0.09	0.04
KCQT	USC/Downtown L.A.	1.59	0.77	0.60	0.45	0.18	0.09	0.06	0.04
KFUL	Fullerton Airport	4.11	1.25	0.81	0.55	0.18	0.08	0.05	0.03
KHHR	Hawthorne Airport	7.75	2.16	1.36	0.92	0.34	0.16	0.09	0.04
KLAX	Los Angeles Int'l Airport	10.99	3.14	2.00	1.37	0.52	0.25	0.12	0.06
KLGB	Long Beach Airport	5.56	1.63	1.00	0.68	0.27	0.13	0.08	0.05
KONT	Ontario Airport	9.72	2.80	1.77	1.22	0.48	0.23	0.13	0.06
KPSP	Palm Springs Airport	8.48	2.64	1.63	1.11	0.43	0.21	0.11	0.06
KRAL	Riverside Airport	4.44	1.57	1.08	0.77	0.32	0.16	0.10	0.06
KSMO	Santa Monica Airport	8.03	2.23	1.41	0.96	0.33	0.14	0.07	0.04
KSNA	John Wayne Int'l Airport	8.00	2.35	1.40	0.94	0.32	0.14	0.08	0.04
KTRM	Desert Hot Springs Airport	7.80	2.50	1.56	1.06	0.42	0.22	0.13	0.07
KVNY	Van Nuys Airport	4.92	1.48	0.90	0.61	0.21	0.09	0.05	0.03

Table 9.5 A – χ/Q for Natural Gas Internal Combustion Engines

Rating (BHP) > 1000

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.21	0.22	0.23	0.21	0.12	0.07	0.03	0.01
BNAP	Banning	3.06	1.06	0.87	0.71	0.28	0.14	0.06	0.02
CELA	Central L.A.	0.64	0.34	0.33	0.28	0.13	0.07	0.03	0.01
ELSI	Lake Elsinore	0.32	0.20	0.20	0.18	0.10	0.06	0.03	0.01
FONT	Fontana	1.29	0.52	0.47	0.40	0.19	0.10	0.04	0.01
MSVJ	Mission Viejo	0.24	0.20	0.21	0.19	0.11	0.06	0.03	0.01
PERI	Perris	1.40	0.54	0.43	0.35	0.15	0.08	0.03	0.01
PICO	Pico Rivera	1.34	0.54	0.47	0.39	0.16	0.09	0.04	0.01
RDLD	Redlands	0.23	0.21	0.23	0.22	0.13	0.07	0.03	0.01
UPLA	Upland	0.65	0.35	0.36	0.33	0.18	0.10	0.04	0.01
KBUR	Burbank Airport	2.23	0.81	0.66	0.54	0.23	0.12	0.05	0.02
KCNO	Chino Airport.	2.90	1.01	0.77	0.61	0.25	0.13	0.05	0.01
KCQT	USC/Downtown L.A.	0.14	0.20	0.23	0.22	0.13	0.08	0.04	0.01
KFUL	Fullerton Airport	1.44	0.59	0.52	0.44	0.19	0.10	0.04	0.01
KHHR	Hawthorne Airport	3.55	1.25	1.04	0.84	0.33	0.15	0.06	0.02
KLAX	Los Angeles Int'l Airport	4.72	1.66	1.33	1.08	0.44	0.22	0.09	0.03
KLGB	Long Beach Airport	1.33	0.54	0.48	0.41	0.20	0.11	0.05	0.01
KONT	Ontario Airport	2.85	0.99	0.80	0.66	0.29	0.15	0.06	0.02
KPSP	Palm Springs Airport	1.59	0.57	0.43	0.34	0.14	0.08	0.03	0.01
KRAL	Riverside Airport	1.12	0.54	0.52	0.47	0.24	0.13	0.06	0.02
KSMO	Santa Monica Airport	4.06	1.36	1.10	0.88	0.34	0.16	0.07	0.02
KSNA	John Wayne Int'l Airport	3.95	1.36	1.01	0.79	0.30	0.15	0.06	0.02
KTRM	Desert Hot Springs Airport	1.68	0.63	0.52	0.44	0.21	0.11	0.05	0.01
KVNY	Van Nuys Airport	2.12	0.78	0.61	0.49	0.20	0.11	0.04	0.01

Table 9.5 B – χ/Q for Natural Gas Internal Combustion Engines

Rating (BHP) > 1000

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.23	0.10	0.09	0.09	0.05	0.03	0.02	0.01
BNAP	Banning	2.49	0.75	0.55	0.42	0.17	0.11	0.07	0.04
CELA	Central L.A.	0.26	0.14	0.13	0.12	0.06	0.03	0.02	0.01
ELSI	Lake Elsinore	0.15	0.09	0.08	0.07	0.04	0.03	0.01	0.01
FONT	Fontana	0.85	0.29	0.25	0.20	0.09	0.05	0.03	0.02
MSVJ	Mission Viejo	0.10	0.08	0.08	0.08	0.04	0.03	0.01	0.01
PERI	Perris	0.81	0.29	0.22	0.18	0.07	0.04	0.02	0.01
PICO	Pico Rivera	0.64	0.24	0.20	0.17	0.07	0.04	0.02	0.01
RDLD	Redlands	0.11	0.09	0.10	0.09	0.06	0.04	0.02	0.01
UPLA	Upland	0.38	0.17	0.17	0.15	0.08	0.05	0.03	0.02
KBUR	Burbank Airport	1.12	0.39	0.30	0.24	0.10	0.06	0.03	0.01
KCNO	Chino Airport.	2.04	0.68	0.48	0.36	0.14	0.07	0.04	0.02
KCQT	USC/Downtown L.A.	0.08	0.09	0.09	0.09	0.06	0.04	0.02	0.01
KFUL	Fullerton Airport	0.58	0.24	0.21	0.17	0.08	0.04	0.02	0.01
KHHR	Hawthorne Airport	1.73	0.58	0.47	0.37	0.15	0.08	0.04	0.02
KLAX	Los Angeles Int'l Airport	2.62	0.88	0.66	0.52	0.21	0.11	0.05	0.02
KLGB	Long Beach Airport	1.25	0.39	0.27	0.20	0.08	0.04	0.02	0.01
KONT	Ontario Airport	2.21	0.71	0.51	0.39	0.16	0.08	0.04	0.02
KPSP	Palm Springs Airport	2.48	0.83	0.56	0.41	0.15	0.09	0.05	0.02
KRAL	Riverside Airport	0.69	0.30	0.27	0.24	0.12	0.07	0.03	0.02
KSMO	Santa Monica Airport	1.73	0.56	0.45	0.36	0.14	0.07	0.03	0.01
KSNA	John Wayne Int'l Airport	1.88	0.63	0.45	0.35	0.13	0.07	0.03	0.01
KTRM	Desert Hot Springs Airport	2.12	0.76	0.51	0.37	0.13	0.08	0.05	0.03
KVNY	Van Nuys Airport	1.04	0.37	0.27	0.21	0.09	0.05	0.02	0.01

Table 9.6 – χ/Q for Natural Gas Internal Combustion Engines

All Operating Conditions

**Acute Hazard Index
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{lb}/\text{hr}]$)**

Rating (BHP)	Downwind Distance (meters)							
	25	50	75	100	200	300	500	1000
50 < Rating (BHP) ≤ 75	528.24	175.46	128.59	103.13	46.87	19.01	6.77	2.67
75 < Rating (BHP) ≤ 150	382.75	120.44	89.95	71.22	31.74	14.51	6.34	2.88
150 < Rating (BHP) ≤ 250	270.73	79.19	56.02	44.86	19.28	9.68	4.54	2.31
250 < Rating (BHP) ≤ 1000	191.90	55.66	39.93	30.37	12.85	6.98	3.48	1.58
Rating (BHP) > 1000	79.34	26.34	19.69	15.17	5.88	3.76	2.09	0.95

Table 10.0 – χ/Q for Diesel Internal Combustion Engines

Equipment Type	Equipment Rating (BHP)	Cancer, Chronic, Chronic 8 Hr χ/Q Tables		Acute χ/Q Table	Source ID
		≤ 12 hr/day	> 12 hr/day		
Diesel Reciprocating Internal Combustion Engines	$50 < \text{Rating} \leq 175$	Table 10.1 A	Table 10.1 B	Table 10.6	D1
	$175 < \text{Rating} \leq 300$	Table 10.2 A	Table 10.2 B		D2
	$300 < \text{Rating} \leq 400$	Table 10.3 A	Table 10.3 B		D3
	$400 < \text{Rating} \leq 600$	Table 10.4 A	Table 10.4 B		D4
	$600 < \text{Rating} \leq 1150$	Table 10.5 A	Table 10.5 B		D5

Table 10.1 A – χ/Q for Diesel Internal Combustion Engines

50 < Rating (BHP) ≤ 175

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	16.41	5.87	3.57	2.18	0.43	0.14	0.05	0.01
BNAP	Banning	27.27	7.50	4.43	2.78	0.65	0.23	0.08	0.02
CELA	Central L.A.	19.74	6.52	3.71	2.20	0.44	0.13	0.04	0.01
ELSI	Lake Elsinore	11.19	3.90	2.38	1.47	0.32	0.11	0.04	0.01
FONT	Fontana	22.80	6.68	4.01	2.48	0.53	0.18	0.06	0.02
MSVJ	Mission Viejo	14.22	4.76	2.84	1.70	0.34	0.12	0.04	0.01
PERI	Perris	14.34	4.49	2.70	1.71	0.40	0.15	0.05	0.01
PICO	Pico Rivera	21.87	6.65	3.80	2.30	0.46	0.15	0.05	0.01
RDLD	Redlands	14.93	5.67	3.48	2.12	0.42	0.14	0.05	0.01
UPLA	Upland	23.12	7.26	4.47	2.79	0.58	0.19	0.06	0.02
KBUR	Burbank Airport	28.28	7.43	4.32	2.68	0.57	0.21	0.07	0.02
KCNO	Chino Airport.	21.41	6.44	3.95	2.51	0.60	0.22	0.07	0.02
KCQT	USC/Downtown L.A.	16.25	5.97	3.83	2.41	0.51	0.17	0.06	0.01
KFUL	Fullerton Airport	23.65	6.75	4.01	2.50	0.54	0.19	0.06	0.02
KHHR	Hawthorne Airport	33.46	8.98	5.34	3.36	0.76	0.26	0.09	0.02
KLAX	Los Angeles Int'l Airport	38.90	10.54	6.49	4.23	1.07	0.38	0.13	0.03
KLGB	Long Beach Airport	23.01	6.23	3.74	2.38	0.54	0.20	0.07	0.02
KONT	Ontario Airport	28.22	7.86	4.87	3.13	0.74	0.27	0.09	0.02
KPSP	Palm Springs Airport	15.40	4.56	2.86	1.81	0.41	0.15	0.05	0.01
KRAL	Riverside Airport	22.29	7.19	4.55	2.91	0.67	0.24	0.08	0.02
KSMO	Santa Monica Airport	36.88	9.87	5.90	3.76	0.87	0.30	0.10	0.02
KSNA	John Wayne Int'l Airport	29.99	8.37	4.89	3.10	0.71	0.26	0.09	0.02
KTRM	Desert Hot Springs Airport	20.15	6.01	3.77	2.49	0.61	0.23	0.08	0.02
KVNY	Van Nuys Airport	21.16	6.06	3.58	2.23	0.50	0.19	0.06	0.01

Table 10.1 B – χ/Q for Diesel Internal Combustion Engines

50 < Rating (BHP) ≤ 175

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	10.78	3.70	2.65	2.01	0.81	0.34	0.14	0.05
BNAP	Banning	28.59	8.77	5.82	4.23	1.65	0.74	0.30	0.10
CELA	Central L.A.	11.17	3.68	2.57	1.90	0.74	0.29	0.11	0.04
ELSI	Lake Elsinore	6.18	2.11	1.39	0.98	0.49	0.28	0.15	0.06
FONT	Fontana	16.92	5.16	3.46	2.53	0.97	0.44	0.19	0.07
MSVJ	Mission Viejo	8.22	2.60	1.72	1.22	0.47	0.25	0.13	0.05
PERI	Perris	10.57	3.45	2.28	1.66	0.67	0.34	0.16	0.06
PICO	Pico Rivera	14.82	4.63	2.97	2.13	0.75	0.33	0.14	0.05
RDLD	Redlands	8.62	3.12	2.19	1.62	0.69	0.34	0.19	0.08
UPLA	Upland	14.72	4.59	3.18	2.34	0.94	0.40	0.19	0.08
KBUR	Burbank Airport	18.29	5.18	3.26	2.27	0.75	0.35	0.15	0.05
KCNO	Chino Airport.	17.11	5.17	3.40	2.45	0.95	0.46	0.20	0.07
KCQT	USC/Downtown L.A.	10.15	3.48	2.64	2.10	0.94	0.43	0.18	0.07
KFUL	Fullerton Airport	13.04	3.81	2.48	1.73	0.60	0.28	0.13	0.04
KHHR	Hawthorne Airport	20.35	5.76	3.69	2.59	0.91	0.40	0.17	0.06
KLAX	Los Angeles Int'l Airport	25.99	7.58	5.02	3.59	1.29	0.57	0.23	0.08
KLGB	Long Beach Airport	15.02	4.86	3.34	2.51	1.06	0.50	0.22	0.08
KONT	Ontario Airport	24.40	7.38	4.99	3.64	1.38	0.65	0.28	0.10
KPSP	Palm Springs Airport	18.97	6.43	4.27	3.12	1.17	0.54	0.23	0.08
KRAL	Riverside Airport	15.05	5.09	3.60	2.73	1.17	0.54	0.24	0.09
KSMO	Santa Monica Airport	20.51	5.97	3.88	2.76	0.95	0.40	0.16	0.06
KSNA	John Wayne Int'l Airport	20.16	6.16	3.90	2.78	0.99	0.46	0.20	0.07
KTRM	Desert Hot Springs Airport	20.21	6.65	4.50	3.30	1.31	0.64	0.28	0.10
KVNY	Van Nuys Airport	13.60	4.17	2.64	1.90	0.73	0.35	0.16	0.06

Table 10.2 A – χ/Q for Diesel Internal Combustion Engines

175 < Rating (BHP) ≤ 300

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	12.51	4.63	2.99	1.93	0.40	0.13	0.04	0.01
BNAP	Banning	23.00	6.47	3.95	2.57	0.63	0.23	0.08	0.02
CELA	Central L.A.	15.94	5.56	3.28	2.01	0.41	0.13	0.04	0.01
ELSI	Lake Elsinore	8.16	2.95	1.95	1.29	0.30	0.11	0.04	0.01
FONT	Fontana	18.26	5.49	3.47	2.25	0.50	0.18	0.06	0.02
MSVJ	Mission Viejo	10.62	3.78	2.38	1.52	0.32	0.11	0.04	0.01
PERI	Perris	11.61	3.70	2.32	1.53	0.38	0.14	0.05	0.01
PICO	Pico Rivera	17.51	5.55	3.32	2.09	0.43	0.15	0.05	0.01
RDLD	Redlands	11.11	4.32	2.82	1.82	0.38	0.13	0.05	0.01
UPLA	Upland	18.11	5.90	3.83	2.50	0.55	0.18	0.06	0.02
KBUR	Burbank Airport	23.52	6.35	3.82	2.46	0.55	0.21	0.07	0.02
KCNO	Chino Airport.	18.16	5.45	3.45	2.28	0.58	0.22	0.07	0.02
KCQT	USC/Downtown L.A.	11.38	4.57	3.15	2.11	0.48	0.16	0.06	0.01
KFUL	Fullerton Airport	19.07	5.69	3.52	2.28	0.52	0.18	0.06	0.02
KHHR	Hawthorne Airport	28.18	7.72	4.76	3.10	0.74	0.25	0.08	0.02
KLAX	Los Angeles Int'l Airport	33.67	9.18	5.82	3.91	1.03	0.37	0.12	0.03
KLGB	Long Beach Airport	18.95	5.29	3.29	2.18	0.51	0.20	0.07	0.02
KONT	Ontario Airport	23.49	6.64	4.25	2.85	0.71	0.26	0.09	0.02
KPSP	Palm Springs Airport	12.03	3.68	2.43	1.62	0.39	0.14	0.05	0.01
KRAL	Riverside Airport	17.33	5.77	3.86	2.59	0.63	0.23	0.08	0.02
KSMO	Santa Monica Airport	31.15	8.57	5.28	3.47	0.83	0.29	0.10	0.02
KSNA	John Wayne Int'l Airport	25.48	7.30	4.36	2.87	0.69	0.25	0.08	0.02
KTRM	Desert Hot Springs Airport	16.64	5.05	3.29	2.25	0.59	0.22	0.08	0.02
KVNY	Van Nuys Airport	17.49	5.17	3.16	2.04	0.48	0.18	0.06	0.01

Table 10.2 B – χ/Q for Diesel Internal Combustion Engines

175 < Rating (BHP) \leq 300

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	7.87	2.66	1.90	1.46	0.61	0.28	0.13	0.05
BNAP	Banning	23.57	6.99	4.55	3.35	1.37	0.65	0.28	0.10
CELA	Central L.A.	8.49	2.81	1.89	1.37	0.52	0.23	0.10	0.04
ELSI	Lake Elsinore	4.59	1.56	1.06	0.77	0.33	0.20	0.12	0.05
FONT	Fontana	13.38	3.98	2.64	1.95	0.76	0.36	0.17	0.07
MSVJ	Mission Viejo	5.82	1.90	1.24	0.87	0.31	0.18	0.10	0.05
PERI	Perris	8.45	2.70	1.76	1.29	0.51	0.26	0.14	0.06
PICO	Pico Rivera	11.55	3.56	2.24	1.63	0.58	0.27	0.13	0.05
RDLD	Redlands	6.23	2.23	1.57	1.17	0.48	0.25	0.17	0.09
UPLA	Upland	11.26	3.48	2.39	1.78	0.69	0.32	0.16	0.08
KBUR	Burbank Airport	14.90	4.18	2.59	1.82	0.59	0.29	0.14	0.05
KCNO	Chino Airport.	14.28	4.21	2.74	1.99	0.75	0.38	0.18	0.07
KCQT	USC/Downtown L.A.	6.56	2.35	1.75	1.38	0.63	0.32	0.16	0.07
KFUL	Fullerton Airport	10.14	2.97	1.88	1.32	0.44	0.22	0.11	0.04
KHHR	Hawthorne Airport	16.52	4.62	2.92	2.06	0.73	0.34	0.15	0.05
KLAX	Los Angeles Int'l Airport	21.87	6.23	4.09	2.95	1.08	0.50	0.21	0.08
KLGB	Long Beach Airport	12.12	3.79	2.52	1.90	0.79	0.40	0.19	0.08
KONT	Ontario Airport	20.11	5.91	3.95	2.91	1.12	0.54	0.25	0.09
KPSP	Palm Springs Airport	16.08	5.33	3.47	2.55	0.96	0.46	0.20	0.08
KRAL	Riverside Airport	11.37	3.80	2.64	2.01	0.87	0.43	0.21	0.08
KSMO	Santa Monica Airport	16.74	4.82	3.09	2.20	0.75	0.33	0.14	0.05
KSNA	John Wayne Int'l Airport	16.58	4.99	3.08	2.21	0.77	0.37	0.17	0.06
KTRM	Desert Hot Springs Airport	16.66	5.38	3.56	2.63	1.05	0.52	0.25	0.10
KVNY	Van Nuys Airport	10.94	3.32	2.06	1.47	0.55	0.28	0.13	0.05

Table 10.3 A – χ/Q for Diesel Internal Combustion Engines

300 < Rating (BHP) \leq 400

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	7.52	3.35	2.18	1.51	0.36	0.12	0.04	0.01
BNAP	Banning	16.85	5.16	3.14	2.18	0.59	0.21	0.07	0.02
CELA	Central L.A.	10.49	4.09	2.47	1.63	0.37	0.11	0.04	0.01
ELSI	Lake Elsinore	4.89	1.93	1.30	0.93	0.25	0.09	0.03	0.01
FONT	Fontana	12.44	4.14	2.61	1.82	0.45	0.16	0.06	0.01
MSVJ	Mission Viejo	6.75	2.66	1.69	1.14	0.27	0.10	0.04	0.01
PERI	Perris	8.37	2.84	1.77	1.24	0.34	0.13	0.05	0.01
PICO	Pico Rivera	12.37	4.31	2.56	1.70	0.38	0.13	0.05	0.01
RDLD	Redlands	6.69	3.14	2.08	1.46	0.35	0.12	0.04	0.01
UPLA	Upland	12.13	4.46	2.89	2.03	0.49	0.16	0.06	0.02
KBUR	Burbank Airport	16.56	4.93	2.96	2.03	0.50	0.19	0.07	0.02
KCNO	Chino Airport.	13.35	4.24	2.67	1.89	0.53	0.20	0.07	0.02
KCQT	USC/Downtown L.A.	6.74	3.14	2.19	1.61	0.42	0.15	0.05	0.01
KFUL	Fullerton Airport	13.26	4.34	2.69	1.87	0.47	0.17	0.06	0.02
KHHR	Hawthorne Airport	20.29	6.11	3.78	2.62	0.68	0.24	0.08	0.02
KLAX	Los Angeles Int'l Airport	24.46	7.34	4.61	3.29	0.95	0.35	0.12	0.03
KLGB	Long Beach Airport	13.34	4.09	2.53	1.79	0.47	0.18	0.07	0.02
KONT	Ontario Airport	16.73	5.14	3.26	2.33	0.65	0.25	0.08	0.02
KPSP	Palm Springs Airport	8.06	2.69	1.78	1.29	0.35	0.13	0.05	0.01
KRAL	Riverside Airport	11.58	4.27	2.84	2.08	0.58	0.21	0.07	0.02
KSMO	Santa Monica Airport	22.99	6.88	4.21	2.93	0.77	0.27	0.09	0.02
KSNA	John Wayne Int'l Airport	18.86	5.84	3.47	2.40	0.63	0.24	0.08	0.02
KTRM	Desert Hot Springs Airport	11.91	3.89	2.49	1.83	0.53	0.20	0.07	0.02
KVNY	Van Nuys Airport	12.43	3.98	2.43	1.68	0.44	0.17	0.06	0.01

Table 10.3 B – χ/Q for Diesel Internal Combustion Engines

300 < Rating (BHP) ≤ 400

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	4.62	1.77	1.17	0.89	0.33	0.16	0.09	0.04
BNAP	Banning	17.15	5.26	3.13	2.31	1.01	0.51	0.24	0.10
CELA	Central L.A.	5.53	1.98	1.27	0.93	0.31	0.14	0.07	0.04
ELSI	Lake Elsinore	2.79	1.02	0.66	0.50	0.17	0.09	0.07	0.04
FONT	Fontana	8.94	2.82	1.72	1.27	0.47	0.23	0.12	0.06
MSVJ	Mission Viejo	3.38	1.24	0.77	0.54	0.16	0.09	0.07	0.04
PERI	Perris	5.82	1.94	1.17	0.86	0.31	0.16	0.09	0.05
PICO	Pico Rivera	7.74	2.54	1.45	1.04	0.35	0.17	0.09	0.04
RDLD	Redlands	3.73	1.54	1.02	0.77	0.28	0.14	0.11	0.07
UPLA	Upland	7.48	2.50	1.60	1.21	0.44	0.21	0.11	0.06
KBUR	Burbank Airport	10.43	3.11	1.80	1.28	0.41	0.19	0.10	0.04
KCNO	Chino Airport.	10.44	3.24	1.99	1.45	0.54	0.26	0.13	0.06
KCQT	USC/Downtown L.A.	3.74	1.52	1.06	0.84	0.34	0.17	0.11	0.06
KFUL	Fullerton Airport	6.77	2.13	1.28	0.92	0.29	0.13	0.08	0.03
KHHR	Hawthorne Airport	11.71	3.49	2.09	1.50	0.53	0.25	0.12	0.05
KLAX	Los Angeles Int'l Airport	15.80	4.78	2.95	2.17	0.81	0.37	0.17	0.07
KLGB	Long Beach Airport	8.57	2.74	1.66	1.24	0.50	0.25	0.14	0.07
KONT	Ontario Airport	14.44	4.45	2.75	2.05	0.80	0.38	0.19	0.08
KPSP	Palm Springs Airport	12.02	4.12	2.50	1.84	0.70	0.33	0.16	0.07
KRAL	Riverside Airport	7.61	2.70	1.75	1.34	0.55	0.28	0.15	0.07
KSMO	Santa Monica Airport	11.98	3.65	2.21	1.60	0.53	0.23	0.11	0.05
KSNA	John Wayne Int'l Airport	11.96	3.77	2.16	1.55	0.52	0.24	0.12	0.05
KTRM	Desert Hot Springs Airport	12.00	4.06	2.47	1.82	0.72	0.36	0.19	0.08
KVNY	Van Nuys Airport	7.70	2.45	1.42	1.02	0.35	0.17	0.09	0.04

Table 10.4 A – χ/Q for Diesel Internal Combustion Engines

400 < Rating (BHP) ≤ 600

< 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	4.36	2.09	1.47	1.02	0.29	0.10	0.04	0.01
BNAP	Banning	12.99	4.14	2.65	1.80	0.54	0.20	0.07	0.02
CELA	Central L.A.	7.39	3.07	1.98	1.30	0.33	0.10	0.03	0.01
ELSI	Lake Elsinore	3.07	1.24	0.89	0.64	0.21	0.08	0.03	0.01
FONT	Fontana	8.67	2.99	1.99	1.37	0.40	0.15	0.05	0.01
MSVJ	Mission Viejo	4.07	1.69	1.15	0.78	0.22	0.09	0.03	0.01
PERI	Perris	6.25	2.19	1.42	0.98	0.30	0.12	0.04	0.01
PICO	Pico Rivera	8.67	3.16	1.97	1.29	0.33	0.12	0.04	0.01
RDLD	Redlands	3.76	1.92	1.38	0.97	0.28	0.11	0.04	0.01
UPLA	Upland	7.92	3.12	2.16	1.50	0.42	0.15	0.05	0.01
KBUR	Burbank Airport	12.55	3.93	2.46	1.65	0.45	0.18	0.07	0.02
KCNO	Chino Airport.	10.43	3.42	2.22	1.54	0.48	0.19	0.07	0.02
KCQT	USC/Downtown L.A.	4.20	2.14	1.61	1.17	0.36	0.13	0.05	0.01
KFUL	Fullerton Airport	9.66	3.35	2.19	1.49	0.42	0.15	0.05	0.01
KHHR	Hawthorne Airport	15.71	4.94	3.21	2.19	0.63	0.22	0.08	0.02
KLAX	Los Angeles Int'l Airport	19.21	6.00	3.91	2.73	0.88	0.33	0.11	0.03
KLGB	Long Beach Airport	10.06	3.25	2.10	1.44	0.42	0.17	0.06	0.02
KONT	Ontario Airport	12.75	4.07	2.68	1.87	0.59	0.23	0.08	0.02
KPSP	Palm Springs Airport	5.76	2.00	1.41	1.00	0.31	0.12	0.04	0.01
KRAL	Riverside Airport	8.20	3.16	2.24	1.60	0.51	0.20	0.07	0.02
KSMO	Santa Monica Airport	17.89	5.65	3.60	2.44	0.71	0.25	0.09	0.02
KSNA	John Wayne Int'l Airport	14.84	4.78	2.94	1.99	0.58	0.22	0.08	0.02
KTRM	Desert Hot Springs Airport	9.07	3.07	2.03	1.45	0.48	0.19	0.07	0.02
KVNY	Van Nuys Airport	9.46	3.16	2.00	1.35	0.40	0.16	0.06	0.01

Table 10.4 B – χ/Q for Diesel Internal Combustion Engines

400 < Rating (BHP) ≤ 600

> 12 (hrs/day)

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	2.66	1.09	0.77	0.55	0.21	0.10	0.06	0.04
BNAP	Banning	12.86	3.97	2.41	1.63	0.75	0.39	0.20	0.08
CELA	Central L.A.	3.83	1.47	0.99	0.68	0.23	0.09	0.05	0.03
ELSI	Lake Elsinore	1.80	0.67	0.46	0.33	0.13	0.06	0.04	0.03
FONT	Fontana	6.19	2.00	1.28	0.88	0.34	0.16	0.09	0.05
MSVJ	Mission Viejo	1.98	0.77	0.51	0.35	0.12	0.05	0.04	0.03
PERI	Perris	4.28	1.46	0.91	0.62	0.23	0.11	0.06	0.04
PICO	Pico Rivera	5.33	1.81	1.09	0.73	0.26	0.11	0.06	0.03
RDLD	Redlands	2.14	0.95	0.68	0.49	0.18	0.09	0.06	0.05
UPLA	Upland	4.85	1.71	1.16	0.82	0.31	0.14	0.08	0.05
KBUR	Burbank Airport	7.76	2.38	1.42	0.94	0.30	0.14	0.07	0.04
KCNO	Chino Airport.	8.05	2.56	1.60	1.10	0.42	0.20	0.10	0.05
KCQT	USC/Downtown L.A.	2.23	0.99	0.75	0.56	0.22	0.10	0.07	0.05
KFUL	Fullerton Airport	4.77	1.58	1.00	0.68	0.22	0.09	0.05	0.03
KHHR	Hawthorne Airport	8.83	2.70	1.68	1.14	0.41	0.19	0.09	0.04
KLAX	Los Angeles Int'l Airport	12.21	3.77	2.38	1.64	0.63	0.29	0.14	0.06
KLGB	Long Beach Airport	6.35	2.06	1.26	0.85	0.35	0.17	0.09	0.05
KONT	Ontario Airport	10.96	3.44	2.16	1.48	0.59	0.28	0.14	0.07
KPSP	Palm Springs Airport	9.48	3.31	2.02	1.38	0.53	0.25	0.12	0.06
KRAL	Riverside Airport	5.33	1.94	1.31	0.94	0.39	0.19	0.11	0.06
KSMO	Santa Monica Airport	8.99	2.85	1.78	1.21	0.41	0.16	0.08	0.04
KSNA	John Wayne Int'l Airport	9.06	2.93	1.72	1.14	0.39	0.17	0.09	0.04
KTRM	Desert Hot Springs Airport	8.95	3.13	1.93	1.31	0.53	0.26	0.14	0.07
KVNY	Van Nuys Airport	5.68	1.85	1.10	0.74	0.25	0.11	0.06	0.03

Table 10.5 A – χ/Q for Diesel Internal Combustion Engines

600 < Rating (BHP) ≤ 1150

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.69	0.41	0.37	0.31	0.15	0.08	0.03	0.01
BNAP	Banning	5.23	1.79	1.34	1.03	0.37	0.16	0.06	0.02
CELA	Central L.A.	1.98	0.82	0.67	0.51	0.18	0.08	0.03	0.01
ELSI	Lake Elsinore	0.77	0.39	0.33	0.28	0.12	0.06	0.03	0.01
FONT	Fontana	2.78	1.01	0.81	0.64	0.25	0.11	0.05	0.01
MSVJ	Mission Viejo	0.78	0.41	0.36	0.30	0.13	0.07	0.03	0.01
PERI	Perris	2.42	0.91	0.68	0.52	0.20	0.09	0.04	0.01
PICO	Pico Rivera	2.83	1.07	0.80	0.60	0.20	0.09	0.04	0.01
RDLD	Redlands	0.65	0.40	0.38	0.32	0.15	0.08	0.04	0.01
UPLA	Upland	1.95	0.81	0.70	0.57	0.23	0.11	0.05	0.01
KBUR	Burbank Airport	4.61	1.56	1.13	0.86	0.30	0.14	0.06	0.02
KCNO	Chino Airport.	4.53	1.57	1.12	0.86	0.32	0.15	0.06	0.02
KCQT	USC/Downtown L.A.	0.41	0.35	0.34	0.30	0.16	0.09	0.04	0.01
KFUL	Fullerton Airport	3.29	1.23	0.95	0.73	0.26	0.12	0.05	0.01
KHHR	Hawthorne Airport	6.20	2.12	1.62	1.24	0.43	0.18	0.07	0.02
KLAX	Los Angeles Int'l Airport	8.04	2.71	2.02	1.56	0.59	0.26	0.10	0.03
KLGB	Long Beach Airport	3.35	1.23	0.93	0.72	0.27	0.13	0.05	0.01
KONT	Ontario Airport	4.86	1.66	1.24	0.97	0.38	0.18	0.07	0.02
KPSP	Palm Springs Airport	2.35	0.86	0.61	0.46	0.19	0.09	0.04	0.01
KRAL	Riverside Airport	2.38	1.02	0.87	0.73	0.31	0.15	0.06	0.02
KSMO	Santa Monica Airport	7.32	2.43	1.79	1.35	0.46	0.19	0.08	0.02
KSNA	John Wayne Int'l Airport	6.44	2.22	1.53	1.14	0.39	0.18	0.07	0.02
KTRM	Desert Hot Springs Airport	3.17	1.17	0.88	0.70	0.29	0.14	0.06	0.02
KVNY	Van Nuys Airport	3.67	1.31	0.95	0.72	0.26	0.12	0.05	0.01

Table 10.5 B – χ/Q for Diesel Internal Combustion Engines

600 < Rating (BHP) ≤ 1150

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.55	0.21	0.16	0.14	0.07	0.04	0.02	0.02
BNAP	Banning	4.80	1.47	0.98	0.72	0.31	0.19	0.11	0.06
CELA	Central L.A.	0.89	0.35	0.29	0.23	0.09	0.04	0.02	0.02
ELSI	Lake Elsinore	0.39	0.18	0.15	0.12	0.06	0.03	0.02	0.01
FONT	Fontana	1.85	0.62	0.46	0.35	0.14	0.08	0.04	0.03
MSVJ	Mission Viejo	0.31	0.17	0.14	0.12	0.05	0.03	0.02	0.01
PERI	Perris	1.46	0.53	0.37	0.28	0.11	0.05	0.03	0.02
PICO	Pico Rivera	1.48	0.52	0.38	0.29	0.10	0.05	0.03	0.02
RDLD	Redlands	0.35	0.19	0.18	0.15	0.07	0.04	0.03	0.02
UPLA	Upland	1.14	0.42	0.35	0.29	0.12	0.07	0.04	0.02
KBUR	Burbank Airport	2.48	0.81	0.56	0.42	0.15	0.07	0.04	0.02
KCNO	Chino Airport.	3.30	1.10	0.74	0.54	0.21	0.11	0.05	0.03
KCQT	USC/Downtown L.A.	0.19	0.15	0.14	0.13	0.07	0.04	0.03	0.02
KFUL	Fullerton Airport	1.44	0.52	0.39	0.30	0.11	0.05	0.02	0.01
KHHR	Hawthorne Airport	3.19	1.04	0.76	0.58	0.22	0.11	0.05	0.02
KLAX	Los Angeles Int'l Airport	4.73	1.53	1.08	0.81	0.32	0.16	0.08	0.04
KLGB	Long Beach Airport	2.20	0.73	0.48	0.34	0.13	0.07	0.04	0.02
KONT	Ontario Airport	3.93	1.28	0.87	0.64	0.25	0.13	0.07	0.04
KPSP	Palm Springs Airport	3.97	1.40	0.91	0.64	0.24	0.13	0.07	0.03
KRAL	Riverside Airport	1.53	0.60	0.48	0.39	0.17	0.09	0.05	0.03
KSMO	Santa Monica Airport	3.26	1.07	0.77	0.58	0.21	0.09	0.04	0.02
KSNA	John Wayne Int'l Airport	3.31	1.13	0.74	0.54	0.18	0.09	0.04	0.02
KTRM	Desert Hot Springs Airport	3.36	1.26	0.82	0.58	0.23	0.13	0.07	0.04
KVNY	Van Nuys Airport	1.87	0.65	0.45	0.33	0.12	0.06	0.03	0.01

Table 10.6 – χ/Q for Diesel Internal Combustion Engines

All Operating Conditions

**Acute Hazard Index
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{lb}/\text{hr}]$)**

Rating (BHP)	Downwind Distance (meters)							
	25	50	75	100	200	300	500	1000
50 < Rating \leq 175	361.32	121.96	90.85	73.66	33.20	14.52	6.12	2.86
175 < Rating \leq 300	309.73	100.99	73.33	60.55	25.94	12.36	5.45	2.67
300 < Rating \leq 400	238.41	80.18	54.79	44.34	19.52	9.85	4.54	2.07
400 < Rating \leq 600	198.38	67.23	46.82	35.85	15.74	8.37	3.94	1.75
600 < Rating \leq 1150	107.85	35.73	26.27	20.43	8.51	5.36	2.83	1.25

Table 11.0 – χ/Q for Crematoriums

Equipment Type	Building Area (ft ²)	Cancer, Chronic, Chronic 8 Hr χ/Q Tables		Acute χ/Q Table	Source ID
		≤ 12 hr/day	> 12 hr/day		
Crematoriums	5,000 < Area ≤ 10,000	Table 11.1 A	Table 11.1 B	Table 11.4	P1
	10,000 < Area ≤ 15,000	Table 11.2 A	Table 11.2 B		P2
	Area > 15,000	Table 11.3 A	Table 11.3 B		P3

Table 11.1 A – χ/Q for Crematoriums

5,000 < Building Area (ft²) ≤ 10,000

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	5.19	2.52	1.65	1.11	0.28	0.11	0.04	0.01
BNAP	Banning	16.83	4.62	2.67	1.75	0.48	0.19	0.07	0.02
CELA	Central L.A.	8.00	2.76	1.70	1.10	0.28	0.11	0.04	0.01
ELSI	Lake Elsinore	3.29	1.56	1.09	0.77	0.22	0.09	0.03	0.01
FONT	Fontana	10.51	3.28	2.09	1.40	0.38	0.15	0.06	0.01
MSVJ	Mission Viejo	4.09	2.01	1.35	0.91	0.24	0.10	0.04	0.01
PERI	Perris	7.50	2.28	1.47	1.02	0.30	0.12	0.05	0.01
PICO	Pico Rivera	9.36	3.09	1.93	1.28	0.33	0.13	0.05	0.01
RDLD	Redlands	4.85	2.51	1.65	1.10	0.28	0.12	0.04	0.01
UPLA	Upland	9.11	3.33	2.17	1.47	0.39	0.16	0.06	0.02
KBUR	Burbank Airport	11.72	3.97	2.44	1.65	0.45	0.19	0.07	0.02
KCNO	Chino Airport.	13.44	3.80	2.31	1.56	0.45	0.19	0.07	0.02
KCQT	USC/Downtown L.A.	4.20	2.50	1.74	1.23	0.33	0.13	0.05	0.01
KFUL	Fullerton Airport	10.90	3.23	2.10	1.44	0.41	0.16	0.06	0.02
KHHR	Hawthorne Airport	20.21	5.26	3.11	2.05	0.54	0.21	0.08	0.02
KLAX	Los Angeles Int'l Airport	23.17	6.76	4.09	2.76	0.78	0.31	0.11	0.03
KLGB	Long Beach Airport	10.44	3.26	2.09	1.46	0.42	0.17	0.06	0.02
KONT	Ontario Airport	16.09	4.48	2.79	1.90	0.55	0.23	0.08	0.02
KPSP	Palm Springs Airport	6.54	2.21	1.48	1.03	0.30	0.12	0.04	0.01
KRAL	Riverside Airport	9.82	3.77	2.42	1.67	0.46	0.19	0.07	0.02
KSMO	Santa Monica Airport	21.67	5.38	3.30	2.24	0.63	0.25	0.09	0.02
KSNA	John Wayne Int'l Airport	19.13	4.92	2.94	1.99	0.57	0.23	0.08	0.02
KTRM	Desert Hot Springs Airport	10.73	3.11	2.05	1.48	0.46	0.19	0.07	0.02
KVNY	Van Nuys Airport	11.52	3.27	2.03	1.37	0.39	0.16	0.06	0.01

Table 11.1 B – χ/Q for Crematoriums

5,000 < Building Area (ft²) ≤ 10,000

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	2.76	1.15	0.78	0.56	0.21	0.11	0.08	0.04
BNAP	Banning	14.53	4.27	2.40	1.63	0.68	0.37	0.21	0.09
CELA	Central L.A.	3.89	1.25	0.81	0.56	0.20	0.11	0.07	0.04
ELSI	Lake Elsinore	1.74	0.71	0.50	0.36	0.13	0.07	0.06	0.04
FONT	Fontana	6.91	1.89	1.18	0.82	0.31	0.17	0.11	0.05
MSVJ	Mission Viejo	1.75	0.82	0.56	0.39	0.12	0.07	0.06	0.03
PERI	Perris	4.61	1.28	0.81	0.57	0.22	0.12	0.08	0.04
PICO	Pico Rivera	5.02	1.47	0.91	0.63	0.23	0.13	0.08	0.04
RDLD	Redlands	2.48	1.15	0.76	0.53	0.19	0.11	0.09	0.07
UPLA	Upland	5.32	1.67	1.09	0.77	0.29	0.15	0.10	0.06
KBUR	Burbank Airport	6.81	2.04	1.24	0.85	0.29	0.15	0.09	0.04
KCNO	Chino Airport.	9.83	2.66	1.59	1.08	0.38	0.19	0.11	0.05
KCQT	USC/Downtown L.A.	2.01	1.09	0.78	0.58	0.22	0.12	0.09	0.05
KFUL	Fullerton Airport	4.83	1.38	0.89	0.62	0.21	0.11	0.07	0.03
KHHR	Hawthorne Airport	10.64	2.73	1.59	1.06	0.36	0.19	0.10	0.05
KLAX	Los Angeles Int'l Airport	13.91	4.09	2.44	1.67	0.57	0.27	0.15	0.06
KLGB	Long Beach Airport	7.01	1.84	1.11	0.78	0.32	0.17	0.11	0.06
KONT	Ontario Airport	12.91	3.47	2.09	1.44	0.54	0.27	0.16	0.07
KPSP	Palm Springs Airport	10.81	2.92	1.76	1.22	0.47	0.24	0.14	0.06
KRAL	Riverside Airport	6.02	2.22	1.39	0.98	0.36	0.19	0.13	0.07
KSMO	Santa Monica Airport	10.09	2.49	1.52	1.06	0.36	0.17	0.09	0.04
KSNA	John Wayne Int'l Airport	10.31	2.61	1.53	1.04	0.37	0.18	0.11	0.05
KTRM	Desert Hot Springs Airport	9.94	2.80	1.73	1.21	0.49	0.26	0.16	0.08
KVNY	Van Nuys Airport	6.12	1.65	0.99	0.68	0.23	0.12	0.07	0.04

Table 11.2 A – χ/Q for Crematoriums

10,000 < Building Area (ft²) ≤ 15,000

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	7.34	2.79	1.81	1.21	0.31	0.11	0.04	0.01
BNAP	Banning	19.94	4.86	2.82	1.84	0.51	0.20	0.07	0.02
CELA	Central L.A.	10.43	3.01	1.86	1.20	0.30	0.11	0.04	0.01
ELSI	Lake Elsinore	4.53	1.73	1.18	0.82	0.23	0.09	0.03	0.01
FONT	Fontana	12.50	3.61	2.26	1.51	0.40	0.16	0.06	0.01
MSVJ	Mission Viejo	6.07	2.22	1.48	0.99	0.25	0.10	0.04	0.01
PERI	Perris	8.30	2.50	1.58	1.08	0.31	0.13	0.05	0.01
PICO	Pico Rivera	11.92	3.44	2.11	1.39	0.35	0.13	0.05	0.01
RDLD	Redlands	7.22	2.74	1.80	1.21	0.31	0.12	0.04	0.01
UPLA	Upland	12.04	3.67	2.36	1.60	0.42	0.16	0.06	0.02
KBUR	Burbank Airport	16.96	4.32	2.64	1.77	0.49	0.19	0.07	0.02
KCNO	Chino Airport.	14.75	4.04	2.44	1.63	0.47	0.19	0.07	0.02
KCQT	USC/Downtown L.A.	7.22	2.82	1.93	1.35	0.37	0.14	0.05	0.01
KFUL	Fullerton Airport	12.79	3.64	2.31	1.57	0.43	0.16	0.06	0.02
KHHR	Hawthorne Airport	22.42	5.47	3.26	2.15	0.58	0.22	0.08	0.02
KLAX	Los Angeles Int'l Airport	26.64	6.87	4.16	2.82	0.82	0.32	0.11	0.03
KLGB	Long Beach Airport	13.42	3.59	2.24	1.55	0.45	0.18	0.06	0.02
KONT	Ontario Airport	17.19	4.83	2.96	2.01	0.58	0.23	0.08	0.02
KPSP	Palm Springs Airport	8.14	2.49	1.62	1.12	0.32	0.13	0.04	0.01
KRAL	Riverside Airport	14.72	4.09	2.60	1.79	0.51	0.20	0.07	0.02
KSMO	Santa Monica Airport	22.24	5.82	3.53	2.37	0.66	0.25	0.09	0.02
KSNA	John Wayne Int'l Airport	19.67	5.33	3.16	2.10	0.59	0.24	0.08	0.02
KTRM	Desert Hot Springs Airport	11.49	3.51	2.24	1.58	0.48	0.19	0.07	0.02
KVNY	Van Nuys Airport	12.48	3.59	2.20	1.48	0.41	0.16	0.06	0.01

Table 11.2 B – χ/Q for Crematoriums

10,000 < Building Area (ft²) ≤ 15,000

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	4.45	1.46	0.95	0.67	0.24	0.12	0.08	0.04
BNAP	Banning	20.31	5.25	2.99	1.99	0.77	0.39	0.21	0.09
CELA	Central L.A.	5.60	1.49	0.94	0.65	0.22	0.11	0.07	0.04
ELSI	Lake Elsinore	2.60	0.90	0.59	0.42	0.14	0.07	0.06	0.04
FONT	Fontana	8.86	2.48	1.49	1.02	0.36	0.18	0.11	0.05
MSVJ	Mission Viejo	2.88	0.99	0.65	0.44	0.14	0.07	0.06	0.03
PERI	Perris	5.50	1.63	0.99	0.69	0.25	0.12	0.08	0.04
PICO	Pico Rivera	7.17	1.96	1.16	0.78	0.27	0.13	0.08	0.04
RDLD	Redlands	4.32	1.39	0.90	0.62	0.22	0.11	0.09	0.07
UPLA	Upland	7.50	2.12	1.32	0.92	0.33	0.16	0.10	0.06
KBUR	Burbank Airport	10.27	2.55	1.50	1.01	0.34	0.16	0.09	0.04
KCNO	Chino Airport.	11.48	3.09	1.83	1.25	0.43	0.20	0.11	0.05
KCQT	USC/Downtown L.A.	4.25	1.41	0.96	0.69	0.27	0.13	0.09	0.05
KFUL	Fullerton Airport	6.30	1.74	1.08	0.74	0.24	0.11	0.07	0.03
KHHR	Hawthorne Airport	13.24	3.27	1.88	1.23	0.41	0.20	0.10	0.05
KLAX	Los Angeles Int'l Airport	17.19	4.62	2.77	1.89	0.64	0.29	0.15	0.06
KLGB	Long Beach Airport	8.19	2.51	1.51	1.04	0.39	0.18	0.11	0.06
KONT	Ontario Airport	14.46	4.24	2.56	1.77	0.63	0.29	0.16	0.07
KPSP	Palm Springs Airport	11.68	3.62	2.18	1.50	0.54	0.25	0.14	0.06
KRAL	Riverside Airport	10.24	2.72	1.68	1.17	0.44	0.22	0.13	0.07
KSMO	Santa Monica Airport	11.40	3.09	1.85	1.26	0.41	0.18	0.09	0.04
KSNA	John Wayne Int'l Airport	12.04	3.38	1.95	1.30	0.43	0.19	0.11	0.05
KTRM	Desert Hot Springs Airport	11.48	3.51	2.14	1.49	0.56	0.27	0.16	0.08
KVNY	Van Nuys Airport	7.57	2.18	1.27	0.85	0.28	0.12	0.07	0.04

Table 11.3 A – χ/Q for Crematoriums

Building Area (ft²) \geq 15,000

< 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ([$\mu\text{g}/\text{m}^3$]/[ton/year])

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	8.67	3.00	1.90	1.27	0.31	0.12	0.04	0.01
BNAP	Banning	19.23	4.94	2.87	1.88	0.52	0.20	0.07	0.02
CELA	Central L.A.	11.56	3.23	1.96	1.27	0.31	0.11	0.04	0.01
ELSI	Lake Elsinore	5.14	1.82	1.22	0.84	0.23	0.09	0.03	0.01
FONT	Fontana	13.06	3.80	2.34	1.56	0.41	0.16	0.06	0.01
MSVJ	Mission Viejo	7.37	2.36	1.54	1.03	0.26	0.10	0.04	0.01
PERI	Perris	8.53	2.58	1.62	1.11	0.32	0.13	0.05	0.01
PICO	Pico Rivera	12.97	3.63	2.20	1.44	0.36	0.14	0.05	0.01
RDLD	Redlands	8.51	2.95	1.88	1.26	0.32	0.12	0.04	0.01
UPLA	Upland	13.29	3.96	2.47	1.66	0.43	0.16	0.06	0.02
KBUR	Burbank Airport	17.29	4.64	2.74	1.84	0.50	0.19	0.07	0.02
KCNO	Chino Airport.	14.78	4.19	2.51	1.68	0.48	0.19	0.07	0.02
KCQT	USC/Downtown L.A.	8.71	3.13	2.06	1.43	0.38	0.14	0.05	0.01
KFUL	Fullerton Airport	13.56	3.85	2.41	1.63	0.44	0.17	0.06	0.02
KHHR	Hawthorne Airport	21.59	5.56	3.31	2.19	0.59	0.22	0.08	0.02
KLAX	Los Angeles Int'l Airport	24.86	6.91	4.18	2.84	0.83	0.32	0.11	0.03
KLGB	Long Beach Airport	13.82	3.82	2.34	1.60	0.46	0.18	0.06	0.02
KONT	Ontario Airport	17.30	5.06	3.05	2.07	0.59	0.23	0.08	0.02
KPSP	Palm Springs Airport	9.02	2.70	1.71	1.17	0.32	0.13	0.04	0.01
KRAL	Riverside Airport	15.20	4.34	2.72	1.86	0.52	0.20	0.07	0.02
KSMO	Santa Monica Airport	21.60	5.95	3.60	2.42	0.66	0.25	0.09	0.02
KSNA	John Wayne Int'l Airport	19.38	5.47	3.24	2.16	0.60	0.24	0.08	0.02
KTRM	Desert Hot Springs Airport	11.69	3.66	2.32	1.62	0.48	0.19	0.07	0.02
KVNY	Van Nuys Airport	12.72	3.75	2.27	1.52	0.41	0.16	0.06	0.01

Table 11.3 B – χ/Q for Crematoriums

Building Area (ft²) \geq 15,000

> 12 (hrs/day)

Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($\mu\text{g}/\text{m}^3/[\text{ton}/\text{year}]$)

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	5.71	1.78	1.11	0.77	0.26	0.12	0.08	0.04
BNAP	Banning	20.89	5.96	3.43	2.28	0.82	0.40	0.21	0.09
CELA	Central L.A.	6.81	1.79	1.08	0.74	0.25	0.12	0.07	0.04
ELSI	Lake Elsinore	3.08	1.02	0.66	0.46	0.15	0.07	0.06	0.04
FONT	Fontana	9.69	2.91	1.72	1.17	0.39	0.18	0.11	0.05
MSVJ	Mission Viejo	3.70	1.14	0.72	0.49	0.15	0.07	0.06	0.03
PERI	Perris	5.91	1.84	1.11	0.77	0.26	0.13	0.08	0.04
PICO	Pico Rivera	8.48	2.34	1.37	0.90	0.29	0.13	0.08	0.04
RDLD	Redlands	5.36	1.68	1.03	0.71	0.24	0.12	0.09	0.07
UPLA	Upland	8.65	2.53	1.53	1.05	0.36	0.17	0.10	0.06
KBUR	Burbank Airport	11.28	3.02	1.72	1.16	0.37	0.16	0.09	0.04
KCNO	Chino Airport.	12.16	3.50	2.03	1.37	0.45	0.21	0.11	0.05
KCQT	USC/Downtown L.A.	5.75	1.82	1.16	0.83	0.30	0.14	0.09	0.05
KFUL	Fullerton Airport	7.29	2.04	1.22	0.82	0.26	0.12	0.07	0.03
KHHR	Hawthorne Airport	13.78	3.70	2.11	1.38	0.44	0.20	0.10	0.05
KLAX	Los Angeles Int'l Airport	16.98	5.02	3.02	2.07	0.68	0.30	0.15	0.06
KLGB	Long Beach Airport	8.89	2.91	1.76	1.22	0.43	0.18	0.11	0.06
KONT	Ontario Airport	15.11	4.78	2.90	2.00	0.68	0.30	0.16	0.07
KPSP	Palm Springs Airport	11.90	3.94	2.41	1.66	0.58	0.26	0.14	0.06
KRAL	Riverside Airport	11.24	3.23	1.96	1.36	0.49	0.23	0.13	0.07
KSMO	Santa Monica Airport	11.83	3.45	2.06	1.40	0.44	0.18	0.09	0.04
KSNA	John Wayne Int'l Airport	12.91	3.84	2.23	1.48	0.47	0.20	0.11	0.05
KTRM	Desert Hot Springs Airport	12.46	3.98	2.43	1.69	0.61	0.28	0.16	0.08
KVNY	Van Nuys Airport	8.48	2.54	1.47	0.97	0.30	0.13	0.07	0.04

Table 11.4 – χ/Q for Crematoriums

All Operating Conditions

**Acute Hazard Index
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{lb}/\text{hr}]$)**

Building Area (ft²)	Downwind Distance (meters)							
	25	50	75	100	200	300	500	1000
5,000 < Area ≤ 10,000	265.00	72.63	48.55	37.28	15.05	7.54	3.64	1.88
10,000 < Area ≤ 15,000	258.10	69.72	47.65	36.20	15.12	7.57	3.64	1.88
Building Area > 15,000	230.50	71.30	49.30	37.13	14.98	7.49	3.64	1.88

Table 12.0 – MICR Screening Tables for Gasoline Dispensing Facilities

Equipment Type	MICR Screening Tables		Source ID
	Residential	Worker	
Gasoline Underground Storage Tank	Table 12.1A	Table 12.1B	U
Gasoline Aboveground Storage Tank	Table 12.2A	Table 12.2B	A

Table 12.1A – Screening Tables for Gasoline Dispensing Facilities

Underground Storage Tank (UST)

Residential

MICR per One Million Gallons of Gasoline

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	2.884	1.040	0.550	0.340	0.093	0.045	0.018	0.006
BNAP	Banning	4.208	1.703	0.940	0.603	0.186	0.093	0.039	0.013
CELA	Central L.A.	2.484	0.876	0.455	0.287	0.085	0.041	0.017	0.005
ELSI	Lake Elsinore	2.978	1.075	0.558	0.347	0.103	0.051	0.021	0.007
FONT	Fontana	3.306	1.254	0.677	0.423	0.124	0.060	0.025	0.007
MSVJ	Mission Viejo	2.721	0.981	0.515	0.319	0.094	0.047	0.018	0.006
PERI	Perris	3.494	1.310	0.695	0.436	0.127	0.063	0.026	0.008
PICO	Pico Rivera	2.629	0.956	0.509	0.316	0.091	0.044	0.018	0.005
RDLD	Redlands	3.562	1.325	0.691	0.418	0.113	0.055	0.024	0.007
UPLA	Upland	3.108	1.133	0.609	0.384	0.111	0.054	0.022	0.007
KBUR	Burbank Airport	3.097	1.198	0.655	0.410	0.125	0.062	0.026	0.008
KCNO	Chino Airport.	4.084	1.609	0.870	0.549	0.166	0.082	0.033	0.010
KCQT	USC/Downtown L.A.	3.382	1.244	0.656	0.407	0.110	0.052	0.021	0.007
KFUL	Fullerton Airport	2.726	1.027	0.553	0.348	0.104	0.052	0.021	0.007
KHHR	Hawthorne Airport	3.225	1.197	0.640	0.405	0.123	0.061	0.025	0.007
KLAX	Los Angeles Int'l Airport	4.456	1.830	1.010	0.648	0.204	0.102	0.044	0.013
KLGB	Long Beach Airport	3.417	1.394	0.764	0.488	0.151	0.076	0.033	0.010
KONT	Ontario Airport	4.834	2.006	1.111	0.710	0.222	0.112	0.047	0.015
KPSP	Palm Springs Airport	3.363	1.352	0.736	0.467	0.144	0.073	0.031	0.010
KRAL	Riverside Airport	4.141	1.678	0.922	0.588	0.177	0.088	0.038	0.013
KSMO	Santa Monica Airport	3.444	1.336	0.731	0.462	0.139	0.068	0.028	0.008
KSNA	John Wayne Int'l Airport	4.041	1.605	0.870	0.549	0.164	0.079	0.032	0.010
KTRM	Desert Hot Springs Airport	3.820	1.553	0.848	0.540	0.163	0.082	0.035	0.010
KVNY	Van Nuys Airport	2.909	1.132	0.608	0.378	0.111	0.055	0.022	0.007

Table 12.1B – Screening Tables for Gasoline Dispensing Facilities

Underground Storage Tank (UST)

Worker

MICR per One Million Gallons of Gasoline

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.238	0.086	0.045	0.028	0.008	0.004	0.002	0.000
BNAP	Banning	0.347	0.140	0.078	0.050	0.015	0.008	0.003	0.001
CELA	Central L.A.	0.205	0.072	0.038	0.024	0.007	0.003	0.001	0.000
ELSI	Lake Elsinore	0.246	0.089	0.046	0.029	0.009	0.004	0.002	0.001
FONT	Fontana	0.273	0.103	0.056	0.035	0.010	0.005	0.002	0.001
MSVJ	Mission Viejo	0.224	0.081	0.042	0.026	0.008	0.004	0.002	0.000
PERI	Perris	0.288	0.108	0.057	0.036	0.010	0.005	0.002	0.001
PICO	Pico Rivera	0.217	0.079	0.042	0.026	0.007	0.004	0.001	0.000
RDLD	Redlands	0.294	0.109	0.057	0.034	0.009	0.005	0.002	0.001
UPLA	Upland	0.256	0.093	0.050	0.032	0.009	0.004	0.002	0.001
KBUR	Burbank Airport	0.255	0.099	0.054	0.034	0.010	0.005	0.002	0.001
KCNO	Chino Airport.	0.337	0.133	0.072	0.045	0.014	0.007	0.003	0.001
KCQT	USC/Downtown L.A.	0.279	0.103	0.054	0.034	0.009	0.004	0.002	0.001
KFUL	Fullerton Airport	0.225	0.085	0.046	0.029	0.009	0.004	0.002	0.001
KHHR	Hawthorne Airport	0.266	0.099	0.053	0.033	0.010	0.005	0.002	0.001
KLAX	Los Angeles Int'l Airport	0.367	0.151	0.083	0.053	0.017	0.008	0.004	0.001
KLGB	Long Beach Airport	0.282	0.115	0.063	0.040	0.012	0.006	0.003	0.001
KONT	Ontario Airport	0.399	0.165	0.092	0.059	0.018	0.009	0.004	0.001
KPSP	Palm Springs Airport	0.277	0.111	0.061	0.038	0.012	0.006	0.003	0.001
KRAL	Riverside Airport	0.341	0.138	0.076	0.049	0.015	0.007	0.003	0.001
KSMO	Santa Monica Airport	0.284	0.110	0.060	0.038	0.011	0.006	0.002	0.001
KSNA	John Wayne Int'l Airport	0.333	0.132	0.072	0.045	0.014	0.007	0.003	0.001
KTRM	Desert Hot Springs Airport	0.315	0.128	0.070	0.045	0.013	0.007	0.003	0.001
KVNY	Van Nuys Airport	0.240	0.093	0.050	0.031	0.009	0.005	0.002	0.001

Table 12.2A – Screening Tables for Gasoline Dispensing Facilities

Aboveground Storage Tank (AST)

Residential

MICR per One Million Gallons of Gasoline

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	4.447	1.603	0.827	0.496	0.114	0.050	0.020	0.006
BNAP	Banning	5.469	2.176	1.185	0.748	0.210	0.101	0.042	0.013
CELA	Central L.A.	3.610	1.258	0.641	0.392	0.100	0.046	0.019	0.006
ELSI	Lake Elsinore	4.056	1.458	0.748	0.452	0.119	0.057	0.024	0.008
FONT	Fontana	4.812	1.787	0.940	0.569	0.145	0.067	0.027	0.008
MSVJ	Mission Viejo	3.600	1.276	0.650	0.395	0.108	0.052	0.021	0.007
PERI	Perris	4.639	1.733	0.904	0.558	0.144	0.069	0.029	0.009
PICO	Pico Rivera	3.720	1.342	0.699	0.421	0.106	0.049	0.019	0.006
RDLD	Redlands	5.809	2.218	1.154	0.685	0.132	0.062	0.026	0.008
UPLA	Upland	4.693	1.677	0.871	0.532	0.130	0.060	0.025	0.008
KBUR	Burbank Airport	3.940	1.493	0.808	0.493	0.139	0.069	0.028	0.008
KCNO	Chino Airport.	4.971	1.950	1.047	0.658	0.188	0.091	0.037	0.011
KCQT	USC/Downtown L.A.	5.393	1.959	1.002	0.604	0.133	0.058	0.024	0.007
KFUL	Fullerton Airport	3.614	1.336	0.699	0.429	0.118	0.058	0.024	0.007
KHHR	Hawthorne Airport	4.415	1.593	0.837	0.511	0.140	0.067	0.027	0.008
KLAX	Los Angeles Int'l Airport	5.624	2.316	1.257	0.794	0.227	0.111	0.047	0.015
KLGB	Long Beach Airport	4.450	1.829	0.993	0.621	0.172	0.083	0.035	0.011
KONT	Ontario Airport	5.990	2.494	1.370	0.862	0.249	0.121	0.051	0.017
KPSP	Palm Springs Airport	4.148	1.691	0.915	0.573	0.163	0.080	0.034	0.010
KRAL	Riverside Airport	5.770	2.318	1.244	0.776	0.202	0.096	0.041	0.013
KSMO	Santa Monica Airport	4.771	1.829	0.977	0.596	0.159	0.074	0.031	0.009
KSNA	John Wayne Int'l Airport	5.072	2.017	1.085	0.674	0.186	0.088	0.036	0.010
KTRM	Desert Hot Springs Airport	4.681	1.917	1.040	0.660	0.183	0.091	0.039	0.012
KVNY	Van Nuys Airport	3.673	1.428	0.760	0.467	0.127	0.060	0.025	0.008

Table 12.2B – Screening Tables for Gasoline Dispensing Facilities

Aboveground Storage Tank (AST)

Worker

MICR per One Million Gallons of Gasoline

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	0.367	0.132	0.068	0.041	0.009	0.004	0.002	0.001
BNAP	Banning	0.451	0.179	0.098	0.062	0.017	0.008	0.003	0.001
CELA	Central L.A.	0.298	0.104	0.053	0.032	0.008	0.004	0.002	0.001
ELSI	Lake Elsinore	0.334	0.120	0.062	0.037	0.010	0.005	0.002	0.001
FONT	Fontana	0.397	0.147	0.077	0.047	0.012	0.005	0.002	0.001
MSVJ	Mission Viejo	0.297	0.105	0.054	0.033	0.009	0.004	0.002	0.001
PERI	Perris	0.383	0.143	0.075	0.046	0.012	0.006	0.002	0.001
PICO	Pico Rivera	0.307	0.111	0.058	0.035	0.009	0.004	0.002	0.001
RDLD	Redlands	0.479	0.183	0.095	0.056	0.011	0.005	0.002	0.001
UPLA	Upland	0.387	0.138	0.072	0.044	0.011	0.005	0.002	0.001
KBUR	Burbank Airport	0.325	0.123	0.067	0.041	0.011	0.006	0.002	0.001
KCNO	Chino Airport.	0.410	0.161	0.086	0.054	0.016	0.007	0.003	0.001
KCQT	USC/Downtown L.A.	0.445	0.162	0.083	0.050	0.011	0.005	0.002	0.001
KFUL	Fullerton Airport	0.298	0.110	0.058	0.035	0.010	0.005	0.002	0.001
KHHR	Hawthorne Airport	0.364	0.131	0.069	0.042	0.012	0.006	0.002	0.001
KLAX	Los Angeles Int'l Airport	0.464	0.191	0.104	0.066	0.019	0.009	0.004	0.001
KLGB	Long Beach Airport	0.367	0.151	0.082	0.051	0.014	0.007	0.003	0.001
KONT	Ontario Airport	0.494	0.206	0.113	0.071	0.021	0.010	0.004	0.001
KPSP	Palm Springs Airport	0.342	0.139	0.075	0.047	0.013	0.007	0.003	0.001
KRAL	Riverside Airport	0.476	0.191	0.103	0.064	0.017	0.008	0.003	0.001
KSMO	Santa Monica Airport	0.393	0.151	0.081	0.049	0.013	0.006	0.003	0.001
KSNA	John Wayne Int'l Airport	0.418	0.166	0.089	0.056	0.015	0.007	0.003	0.001
KTRM	Desert Hot Springs Airport	0.386	0.158	0.086	0.054	0.015	0.007	0.003	0.001
KVNY	Van Nuys Airport	0.303	0.118	0.063	0.038	0.010	0.005	0.002	0.001

Table 13.0 – χ/Q for Spray Booths

Equipment Type	Stack Height (ft)	Cancer, Chronic, Chronic 8 Hr χ/Q Tables	Acute χ/Q Table	Source ID
		≤ 12 hr/day		
Spray Booth	$16 \leq \text{Height} < 24$	Table 13.1	Table 13.3	P1
	$24 \leq \text{Height} < 50$	Table 13.2		P2

Table 13.1 – χ/Q for Spray Booths

16 ft \leq Stack Height < 24 ft*

< 12 hours

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	21.48	5.77	2.98	1.78	0.34	0.13	0.05	0.01
BNAP	Banning	25.33	6.05	3.59	2.31	0.54	0.22	0.08	0.02
CELA	Central L.A.	23.19	7.14	2.95	1.74	0.33	0.13	0.05	0.01
ELSI	Lake Elsinore	11.82	5.62	2.23	1.34	0.28	0.11	0.04	0.01
FONT	Fontana	23.99	6.78	3.45	2.13	0.44	0.18	0.06	0.01
MSVJ	Mission Viejo	14.46	7.58	2.50	1.50	0.29	0.12	0.04	0.01
PERI	Perris	10.89	6.11	2.36	1.48	0.35	0.15	0.05	0.01
PICO	Pico Rivera	16.68	9.30	3.07	1.84	0.38	0.15	0.05	0.01
RDLD	Redlands	20.78	5.75	3.00	1.81	0.35	0.14	0.05	0.01
UPLA	Upland	27.30	7.04	3.69	2.27	0.46	0.18	0.07	0.02
KBUR	Burbank Airport	14.62	8.84	3.44	2.14	0.49	0.21	0.07	0.02
KCNO	Chino Airport.	22.53	5.96	3.49	2.25	0.54	0.22	0.07	0.02
KCQT	USC/Downtown L.A.	23.02	6.43	3.51	2.15	0.42	0.16	0.06	0.01
KFUL	Fullerton Airport	15.58	9.45	3.26	2.02	0.44	0.18	0.07	0.02
KHHR	Hawthorne Airport	32.27	7.25	4.22	2.68	0.59	0.23	0.08	0.02
KLAX	Los Angeles Int'l Airport	34.88	8.37	5.14	3.37	0.83	0.34	0.12	0.03
KLGB	Long Beach Airport	11.54	7.02	2.98	1.90	0.47	0.20	0.07	0.02
KONT	Ontario Airport	27.28	7.64	4.24	2.72	0.65	0.26	0.09	0.02
KPSP	Palm Springs Airport	17.43	4.66	2.62	1.65	0.36	0.14	0.05	0.01
KRAL	Riverside Airport	25.40	6.50	3.94	2.51	0.56	0.22	0.08	0.02
KSMO	Santa Monica Airport	28.07	8.70	4.48	2.84	0.66	0.27	0.10	0.02
KSNA	John Wayne Int'l Airport	22.94	8.73	4.07	2.59	0.63	0.26	0.09	0.02
KTRM	Desert Hot Springs Airport	14.92	6.24	3.14	2.04	0.52	0.22	0.08	0.02
KVNY	Van Nuys Airport	14.36	7.45	2.98	1.87	0.43	0.18	0.06	0.01

* Note: Facilities with stack heights less than 16 feet must perform Tier 3 or Tier 4 dispersion modeling.

Table 13.2 – χ/Q for Spray Booths

24 ft ≤ Stack Height < 50 ft

< 12 hours

**Carcinogenic, Chronic and Chronic 8-Hour
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{ton}/\text{year}]$)**

Station Abbr.	Location	Downwind Distance (meters)							
		25	50	75	100	200	300	500	1000
AZUS	Azusa	15.68	7.28	3.08	1.96	0.49	0.18	0.05	0.01
BNAP	Banning	16.43	5.62	3.26	2.20	0.65	0.27	0.08	0.02
CELA	Central L.A.	14.10	8.60	2.75	1.77	0.45	0.17	0.05	0.01
ELSI	Lake Elsinore	10.37	8.12	2.31	1.46	0.37	0.14	0.04	0.01
FONT	Fontana	16.71	9.18	3.27	2.14	0.57	0.22	0.06	0.01
MSVJ	Mission Viejo	11.34	8.63	2.35	1.53	0.38	0.14	0.04	0.01
PERI	Perris	8.52	6.81	2.18	1.44	0.41	0.17	0.05	0.01
PICO	Pico Rivera	12.30	10.41	2.83	1.81	0.48	0.18	0.05	0.01
RDLD	Redlands	16.48	6.82	3.18	2.02	0.50	0.18	0.05	0.01
UPLA	Upland	17.77	8.64	3.53	2.31	0.62	0.23	0.07	0.02
KBUR	Burbank Airport	11.88	10.42	3.12	2.04	0.56	0.23	0.07	0.02
KCNO	Chino Airport.	15.61	5.77	3.15	2.13	0.63	0.26	0.08	0.02
KCQT	USC/Downtown L.A.	16.41	7.29	3.44	2.23	0.57	0.21	0.06	0.01
KFUL	Fullerton Airport	12.13	11.23	3.02	2.00	0.56	0.22	0.07	0.02
KHHR	Hawthorne Airport	20.76	6.85	3.96	2.65	0.78	0.31	0.09	0.02
KLAX	Los Angeles Int'l Airport	22.81	7.30	4.64	3.22	1.03	0.43	0.12	0.03
KLGB	Long Beach Airport	9.19	8.40	2.67	1.79	0.52	0.21	0.07	0.02
KONT	Ontario Airport	18.51	8.46	3.80	2.57	0.76	0.31	0.09	0.02
KPSP	Palm Springs Airport	12.03	5.40	2.39	1.59	0.44	0.17	0.05	0.01
KRAL	Riverside Airport	18.01	6.03	3.73	2.50	0.70	0.28	0.08	0.02
KSMO	Santa Monica Airport	18.31	14.28	4.13	2.79	0.84	0.33	0.10	0.02
KSNA	John Wayne Int'l Airport	15.86	12.66	3.68	2.46	0.73	0.30	0.09	0.02
KTRM	Desert Hot Springs Airport	10.55	9.40	2.82	1.94	0.60	0.25	0.08	0.02
KVNY	Van Nuys Airport	10.89	9.71	2.72	1.80	0.51	0.20	0.06	0.01

Table 13.3 – χ/Q for Spray Booths

All Operating Conditions

**Acute Hazard Index
 χ/Q Values ($[\mu\text{g}/\text{m}^3]/[\text{lb}/\text{hr}]$)**

Stack Height	Downwind Distance (meters)							
	25	50	75	100	200	300	500	1000
16 ft \leq Stack Height < 24 ft	1280.53	498.24	275.07	213.97	72.34	39.80	19.87	7.27
24 ft \leq Stack Height < 50 ft	782.00	503.29	213.04	181.03	106.19	55.96	20.63	7.56



Proposed Amended Rule 1401: New Source Review of Toxic Air Contaminants

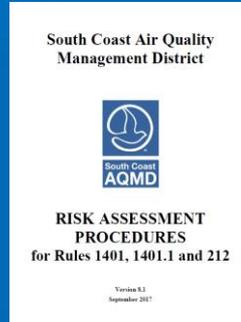
GOVERNING BOARD MEETING
September 1, 2017



Background

- Rule 1401 establishes cancer and non-cancer risk requirements for new, relocated, or modified permitted sources
- Rule 1401 was amended in June 2015 to use the 2015 OEHHA Guidelines which are incorporated in the SCAQMD Risk Assessment Procedures Version 8.0
 - Included provision to allow spray booths and gasoline dispensing facilities to continue using Version 7.0
 - Staff needed additional time to assess impacts

Staff Proposal



- Remove exemption in Rule 1401 for Spray Booths and Gasoline Dispensing Facilities
- Require use of most recent Risk Assessment Procedures

- Revise Risk Assessment Procedures* to include
- 2015 OEHHA Guidelines for the two categories
 - CARB's 2013 gasoline dispensing emission factors and speciation profiles
 - Updated model and meteorological data

- Update list of toxic air contaminants in Rule 1401 to be consistent with the current list used by OEHHA

* Guidelines are receive and file

Potential Permitting Impacts

SCAQMD staff evaluated spray booth and gasoline dispensing facility permits issued over five-year period* to understand potential impacts of SCAQMD Risk Assessment Guidelines Version 8.1



Spray Booths



Gasoline Dispensing
Facilities

* Five year period was 2009 to 2014. For new gasoline dispensing facilities a seven year period from 2009 to 2016 was evaluated.

Analysis of Updates to Toxic Air Contaminants in PAR 1401

- Table I of Rule 1401 is being updated to reflect revisions by OEHHA
- No impacts anticipated
 - Caprolactum – Rule 1141 already controls emissions by 95%
 - Carbonyl sulfide – Already closely controlled in refineries
 - Other compounds added acute health risk values
 - Acute risk (new) << chronic / cancer risk (current)

CAS #	New Substances Added
105-60-2	caprolactum
463-58-1	carbonyl sulfide

CAS #	Added Health Risk Values
106-99-0	1,3-butadiene (acute)
101-68-8	Methylene diphenyl diisocyanate (acute)
584-84-9	toluene-2,4-diisocyanate (acute)
91-08-7	toluene-2,6-diisocyanate (acute)

Key Issue

- Stakeholders requesting to continue using current procedures (Version 7.0) until CARB updates gasoline dispensing emission factors – continue exemption in R1401
 - CARB will be revising refueling emission estimates for Phase II controls with ORVR vehicles
 - CARB anticipates revisions by end of 2017
 - CARB reviewing new study (not yet published)
 - CARB committed to CAPCOA and public review
 - SCAQMD staff will work with CARB
 - After CARB completes revision, adoption Resolution commits staff to revise guidelines and return to the Governing Board as soon as practicable
 - Rule amendment not necessary



Staff Proposal for Refueling Emission Factor

- Use Version 7.0 for the refueling emission factor
- Use all other 2013 CARB emission factors – loading, breathing, etc.
- Permitting impacts of Version 8.1 are minimal (< 1 new gas station per year)

Emission Source	SCAQMD Proposed Changes
Emission Factors	
Loading	Revised, Same as CARB
Breathing	Revised, Same as CARB
Refueling	No Change (0.32 lbs/1000 gallons)
Spillage	Revised, Same as CARB
Hose Permeation	Revised, Same as CARB
2015 Speciation Profiles	Revised, Same as CARB



Recommended Actions

- Adopt the Resolution:
 - Determining that proposed amendments to Rule 1401 are exempt from CEQA; and
 - Adopting Proposed Amended Rule 1401

BOARD MEETING DATE: September 1, 2017

AGENDA NO. 30

PROPOSAL: Amend Governing Board Meeting Procedures

SYNOPSIS: This action is to amend the Governing Board Meeting Procedures, primarily to add provisions to address public decorum and meeting disruptions. In addition, the amendments will clarify the time limits for public comment and address recent changes in the law applicable when members of the public use translators to assist with providing public comment. In addition, the amendments will, in certain areas, conform the procedures to long-standing Board practice. A public consultation meeting was held on August 10, 2017, to consider key proposals and revisions are being recommended in response to public comments received at the meeting.

COMMITTEE: No Committee Review

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

1. Approving amendments to the SCAQMD Governing Board Meeting Procedures as shown in Attachment B.
2. Directing staff to present draft policies to the Administrative Committee on satellite meeting locations for Governing Board meetings and periodically conducting Governing Board meetings in areas of the District most affected by air pollution.

Wayne Natri
Executive Officer

KRW:vmr

Background

At the July 2017 meeting of the Governing Board, staff presented the Board with proposed changes to the Board's meeting procedures to streamline Board processes, promote public safety, and address disruptions at Board meetings. Several of the proposed changes engendered significant public response—in particular, a proposal to reduce the maximum amount of public comment time allotted to each speaker from

three minutes to one and one-half minutes. Before staff presented the item to the Board, the Chairman directed staff to conduct a public workshop with stakeholders and report back to the Board in September with further recommendations.

As directed by the Chairman, staff met with stakeholders in Diamond Bar on August 10, 2017. Notice for the meeting was provided to stakeholders by email, to approximately 5,835 addresses. Approximately 20 people attended the public consultation meeting, and many spoke to the proposed changes. In addition, written comments were provided: a joint letter by the Sierra Club and EarthJustice; a letter from Yvonne Watson, Sierra Club Angeles Chapter Volunteer Leader; and an email letter by Stephen Beck, CFO of the Legends at Cascades Community.

As the result of stakeholder comments, staff is recommending changes to the proposal it presented to the Board in July. Specifically, staff is retracting its recommendation to reduce the maximum amount of time for individual comments by members of the public from three to one and one-half minutes. Staff is recommending that the maximum time limit remain at three minutes. In addition, staff is recommending a new section to address video and audio recording of Board meetings by the press, an activity that is sanctioned by the Brown Act; clarification that speakers can be removed from a meeting for speaking off topic only if they are *willfully* speaking on a subject that is not before the Board; and a modification to the proposal regarding public comments by representatives of a group or organization so that choosing group representatives is voluntary and that group representatives must be given extra speaking time. These recommended changes are highlighted in Attachment B. The proposed changes that were presented to the Board at the July 2017 meeting are in underline-strikeout; the latter changes that are proposed following the Public Workshop are in double underline-double strikeout. In general, stakeholders did not take issue with staff's proposed changes involving additional speaking time for members of the public using the services of a translator, limits on persons permitted to approaching the dais, and disruptive conduct.

In addition, staff is proposing to return to the Administrative Committee with proposals for two new topics that were raised at the public workshop. Workshop participants expressed an interest in the Board establishing satellite meeting locations where members of the public could observe Board meetings and provide public comments. There was also support expressed for the Board's practice of conducting meetings in areas of the District most affected by air pollution, such as the Board meetings in Riverside and Long Beach, and formalizing this practice by adopting a Board policy. With the Board's approval, staff will develop draft policies on these two topics and present them to the Administrative Committee at the Committee's September 2017 meeting.

Also, two provisions are recommended for change so that the meeting procedures will be consistent with long-standing Board practices. These changes include an acknowledgment that the Board Chair is authorized to adjourn meetings and take agenda items out of order. Finally, to enable the orderly receipt of public testimony, staff is recommending that speaker cards must be submitted before the Board begins considering an item.

Proposal

Amend Governing Board Procedures section 30.5 of the SCAQMD Administrative Code and add sections 30.12, 30.13, 30.14 and 30.15 as shown in Attachment B.

Resource Impacts

None.

Attachments

- A. Resolution
- B. Governing Board Meeting Procedures (section 30 of the SCAQMD Administrative Code)

ATTACHMENT A

RESOLUTION NO. 17-___

A Resolution of the South Coast Air Quality Management District Board amending procedures for meetings of the SCAQMD Board.

WHEREAS, the SCAQMD Board has adopted procedures ensuring that meetings of the Board are orderly, fair, and lawfully consider agenda items;

WHEREAS, the SCAQMD Board finds that fairness and orderly conduct of the Board meeting will be promoted by amending the meeting procedures, as set forth in Attachment B hereto;

NOW, THEREFORE BE IT RESOLVED that the SCAQMD Board hereby amends the SCAQMD Governing Board Meeting Procedures, as shown in Attachment B, and incorporates these changes into section 30 of the Administrative Code.

DATED: _____

DENISE GARZARO
Clerk of the Boards

ATTACHMENT AB

Section 30 – SCAQMD’s Governing Board Meeting Procedures

30.1 – Index

- 30.2 General**
- 30.3 Placement of Items on the Board Agenda**
- 30.4 Authorities and Duties of the Chair**
- 30.5 Receipt of Public Testimony**
- 30.6 Changes to Text of Proposed Items**
- 30.7 Motions**
- 30.8 Voting**
- 30.9 Reconsideration or Amendment of Completed Agenda Items**
- 30.10 Continuance Upon Lack of Action**
- 30.11 Prohibition of Megaphones, Large Signs, and Sticks Section**
- 30.12 Approaching the Dais**
- 30.13 Credentialed Press**
- 30.134 Congregating in Aisles and Walkways**
- 30.145 Disruptive Conduct – Removal from Meeting**

30.2 – General

These rules shall apply to meetings of SCAQMD’s Governing Board. Except as otherwise required by law, these rules may be suspended by order of the Board. Failure to follow these rules shall not invalidate any action taken.

Section 30.3 – Placement of Items on the Board Agenda

1. **Placement.** Any Board Member may place an item on the agenda for the next regular Board meeting, provided that the request for such placement is made prior to or at the Administrative Committee meeting which reviews the agenda for that Board meeting. The Chair may authorize the addition of items to the agenda after the Administrative Committee meeting if there is an urgent need for Board action.
2. **Removal.** A Board Member may remove an agenda item that he or she placed on the agenda if such a request is made prior to public distribution of the agenda.
3. **Reconsideration.** The Board may reconsider any agenda item that previously received official action (i.e., approval or disapproval by the required majority vote of the Board), provided that the request for reconsideration is made by a Board Member who voted with the prevailing side. If there was no prevailing side, i.e., no side received the number of votes required for action under applicable statutes, any member may request reconsideration.

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Section 30.4 – Authorities and Duties of Chair

The Chair shall preside over meetings of the Board and shall possess the authorities and perform the duties specified in this subdivision, subject to the right of appeal to the Board pursuant to subparagraph (e)(2)(D). In the absence of the Chair, the Vice Chair shall exercise the authorities and duties of the Chair. The authorities and duties of the Chair are as follows:

- (1) call the meeting to order;
- (2) preserve order and decorum;
- (3) consistent with paragraph (d)(2), limit the amount of time that a person may address the Board during public testimony in order to accommodate those persons desiring to speak and to facilitate the business of the Board;
- (4) recognize members who are entitled to the floor;
- (5) state and put to vote all motions that are properly made, or, if a motion is not in order, to rule it out of order;
- (6) decide all questions of order;
- (7) schedule recesses and take other actions to endeavor to assure the presence of a quorum in the Board room at all times during a meeting;
- (8) declare the meeting adjourned; ~~when the Board so votes, or if less than a quorum is present, on the Chair's own initiative; and~~
- (9) take items on the agenda out of order; and
- ~~(9)~~(10) designate an acting Chair to preside at the Board meeting in the absence of the Chair and Vice Chair.

Section 30.5 – Receipt of Testimony

- (1) Public's Right to Testify. The Board will allow testimony by the public on any agenda item before or during the Board's consideration of the item. The Board need not allow public testimony on any item that has already been considered by the Board or a Board committee at a public meeting where all interested members of the public were afforded the opportunity to testify on the item, unless the item has been substantially changed since the Board or committee considered the item.
- (2) Time Allotted for Testimony. Each member of the public wishing to testify shall file a Request to Speak card with the Clerk of the Board. To facilitate an orderly proceeding, the card ~~should~~ shall be filed prior to commencement of consideration of the item, ~~and must be filed prior to the close of the public testimony regarding the item.~~ Each member of the public, timely filing a Request to Speak card, shall be afforded ~~at least~~ no more than three ~~three~~ one and one-half minutes to testify. The Chair may increase this allotment for an individual speaker if the issues addressed are complex or if the speaker represents other

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persons. The Chair retains the authority to reduce the time allotted for each speaker to less than ~~one and one-half~~ three minutes if the number of persons wishing to address the Board would prevent the Board from accomplishing its business in a reasonably efficient manner. When any group of persons wishes to address the Board on the same subject matter, the Chair may ~~require~~ request that a spokesperson be chosen to represent the group, so as to avoid unnecessary repetition. A group spokesperson shall be granted additional speaking time as determined by the Chair. A member of the public using the services of a translator shall be allocated twice the amount of time to speak as other individual public speakers to ensure that non-English speakers receive an equal opportunity to address the Governing Board.

- (3) Written Submittals. The Clerk of the Board shall not be required to accept written testimony or comments unless 25 copies of such testimony or comments are provided.
- (4) Public Hearings. Agenda items requiring a public hearing shall be subject to this paragraph.
 - (A) Closing Public Testimony. The Chair shall close the public testimony portion of a public hearing after all persons timely filing Request to Speak cards have testified. The Board may thereafter deliberate and vote on the item.
 - (B) Reopening Public Testimony.
 - (i) Reopening During Hearing. Public testimony may be reopened by the Chair or Board at any time prior to the conclusion of the Board's consideration of the item. The Chair or Board may restrict testimony to a limited number of persons specified by the Chair or Board, if such testimony is solely to summarize or clarify information already in the record.
 - (ii) Reopening After Continuance. If, after closing public testimony, the Board continues the item to a later time or date for deliberations and voting, public testimony may not be reopened at the continued hearing unless (1) public notice required for a hearing on the matter has been given, or (2) prior to continuing the item, the Board announced its intention to reopen public testimony at the continued hearing.
 - (C) Receipt of Information Outside of Record Regarding Proposed Rules. If a Board Member receives information which is not in the record and which is material to the member's vote on a proposed rule, the member shall disclose that information on the record either verbally or in writing. If the information disclosed by a Board Member could substantially influence the decision of the Board and was not available to the public prior to the close of public testimony, the hearing shall be reopened to allow public comment on the new information.
 - (D) Testimony and Action on Proposed Rules Modified After Public Notice

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- (i) If, subsequent to issuance of the 30-day public notice of hearing to adopt or amend a rule, changes are made in the text of the proposed rule which significantly affect its meaning, the Board may consider and hear public comment regarding the proposed rule at the noticed hearing but shall not take action on the changed text. The Board shall publicly release or summarize the text changes and shall continue the hearing to no earlier than its next regular meeting. At the subsequent meeting, the Board shall allow testimony regarding the changed text prior to taking final action. In determining whether or not a proposed change significantly affects the meaning of a rule, the following factors shall be considered:
 - (a) impact of the change on emission reductions,
 - (b) impact of the change on sources regulated by the rule,
 - (c) the contents of the public notice, and
 - (d) the range of project alternatives described in the CEQA document.

Section 30.6 – Changes to Text of Proposed Items

It is the Board’s policy that no changes may be made to the text of any item after the Friday of the week prior to the Board meeting unless the change responds to an emergency. The determination of whether an emergency exists will be made by the Chairman in consultation with the Executive Officer. The Board retains the discretion to change the text of proposed rule or rule amendment at a public hearing on the item consistent with the provisions in 4.D. above.

Section 30.7 – Motions

- (1) Procedure, General. The following procedure shall be utilized in making and ruling upon motions:
 - (A) Making Motion. A member who has been recognized by the Chair as having the floor may make a motion.
 - (B) Seconding. A motion may be seconded without receiving the floor.
 - (C) Stating by Chair. The Chair shall state the question on the motion. Alternatively, the Chair may request the Clerk or the member making the motion to state the motion. The Chair shall ensure that the question is put into clear and suitable form--preserving the content to the satisfaction of the mover--before the question is stated. The Chair shall require that lengthy or complex motions be in writing before stating.
 - (D) Modification. Until the question on the motion is stated by the Chair, it may be modified by its maker and, if so, the second may be withdrawn. After stating by the Chair, a motion may only be modified by the Board through a motion to amend.

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- (E) Debate. The Chair shall assign the floor for debate on the motion first to the maker of the motion and then to each member wishing to speak to the motion. Unless a motion calling for the question is adopted by the Board (see subparagraph (e)(2)(C)), the Chair shall not close debate so long as any member has not had the opportunity to speak twice on the question.
 - (F) Vote. The Chair shall put the question to a vote.
 - (G) Announcement, Change of Vote. The Chair shall announce the result of the vote, either verbally or by electronic display. A member has the right to change his or her vote up to the time the result is announced. Thereafter the member can change a vote only by permission of the Board.
- (2) Types of Motions. The following types of motions shall be handled in the manner specified:
- (A) Main Motion. A main motion must be seconded, is debatable, and may only be made when no other motion is pending.
 - (B) Amend a Pending Motion. A motion to amend must be seconded, is debatable if the motion to be amended is debatable, and takes precedence over (i.e., must be voted upon prior to) the main motion. A motion to amend may be amended (i.e., a "second degree" motion to amend). A motion to amend a second degree motion is not allowed. An amendment must be germane to the subject of the motion amended, but may be hostile to the original motion. An amendment is improper if it merely makes adoption of the amended question equivalent to a rejection of the original motion. A "substitute" is a type of amendment striking all or part of a main motion and inserting new provisions. The Chair may first accept only amendments to the motion proposed to be struck, and then only amendments to the proposed substitute, so that the Board will understand the final form of the main motion and proposed substitute prior to voting on the substitute.
 - (C) Call for the Question ("Previous question"). Adoption of a motion calling for the question immediately closes debate and subsidiary motions and puts the matter to a vote. The motion must be seconded, and is not debatable. In order to minimize restriction of a member's right to debate, the motion must be adopted by the affirmative votes of two-thirds of the members present, or by a majority of the members of the full Board, whichever is greater.
 - (D) Appeal. An appeal allows the Board to decide whether or not to overrule a procedural ruling of the Chair. An appeal must be made immediately upon the Chair's ruling, must be seconded, and is debatable. A majority vote is required to reverse the Chair's decision. The appeal takes precedence over any question pending at the time the Chair makes a ruling from which the appeal is made.
 - (E) Point of Order. A point of order questions the appropriateness of procedure. A point of order need not be seconded, is not debatable, may be made by a member who does not have the floor, and is ruled upon by the Chair. It takes precedence

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over any pending question out of which it may arise.

- (F) Amend Something Previously Adopted.¹ This motion must be seconded and is debatable.

- (G) Reconsider.¹ A motion to reconsider brings back for further consideration a motion which has already been voted on. In order to protect against dilatory use, the motion can be made only by a member who voted with the prevailing side. If there was no prevailing side, i.e., no side received the number of votes required for action under applicable statutes, any member may move to reconsider. The motion must be seconded (by any member) and is debatable. Unless otherwise specified in the motion, the effect of adoption of the motion is to suspend all action that depends on the vote to be reconsidered.

- ~~(H) Depart From Agenda¹ (e.g., immediately take up an item out of order). This motion must be seconded and is not debatable.~~

Section 30.8 – Voting

- (1) Majority Vote Requirement. Notwithstanding any contrary principles of parliamentary procedure, adoption of any motion by the Board shall require the affirmative votes of a majority of the members of the Board, unless otherwise required by law. Calif. Health & Saf. Code §40424 ("no official action shall be taken by the Board except in the presence of a quorum and upon the affirmative votes of a majority of the members of the Board").

- (2) Procedure. Voting on the adoption of all items on the Board agenda shall be by roll call or by electronic display of the vote of each member. Unless any Board Member objects, a unanimous voice vote may be utilized to adopt any motion, including adoption of an agenda item. A unanimous voice vote shall be recorded by the Clerk as an "aye" vote for each member present. For purposes of this subdivision, the consent calendar may be considered a single item.

Section 30.9 – Reconsideration or Amendment of Completed Agenda Items

- (1) Requirement. In the case of an agenda item requiring a public hearing, the Board shall not reopen the agenda item for reconsideration or amendment if the Board completed its consideration of the item earlier during the same meeting and (1) such completion was publicly announced by the Chair, (2) the Board proceeded to consider another item, or (3) the Board subsequently recessed.

- (2) Exceptions. Paragraph (1) shall not apply if:
 - (A) prior to completing consideration of the agenda item, the Chair announced its intention to further consider the item at a later time during the meeting;

¹ See subdivision (g) for restrictions on reconsidering or amending an agenda item after the Board completes consideration of the item.

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- (B) the Board is reopening an item for the sole purpose of determining whether or not to schedule a motion to reconsider or amend the item for a subsequent meeting which will be publicly noticed pursuant to law; or
 - (C) placement of a new agenda item for the purpose of reconsidering or amending an agenda item would be authorized by Government Code Section 54954.2(b)(1) (emergencies involving threatened disruption of public facilities) or Government Code Section 54954.2(b)(2) (authorizing addition of new agenda items at regular meetings after 72 hour agenda posting if Board, by two-thirds vote, determines that there is a need to take immediate action and that the need for action came to the attention of the agency subsequent to the agenda being posted).
- (3) The agenda for each meeting of the Board shall include a notice to the public that the Board may reconsider or amend any item not requiring a public hearing at any time during the meeting.

Section 30.10 – Continuance Upon Lack of Action

Unless otherwise specified by the Board, any agenda item which is not acted upon by the Board shall by operation of this provision be continued to the next regular meeting of the Board. The Clerk shall provide notice of such continuance as set forth in Government Code Section 54955.1. As used in this subdivision, the term "acted upon" shall mean adoption or defeat of a main motion by the votes of a majority of the Board.

Section 30.11 – Prohibition of Megaphones, Large Signs, and Sticks

No megaphones, bullhorns, or placards, signs, or posters which are higher or wider than 18 inches, or which have protruding sticks or handles, shall be brought into the Board room during a Board meeting or prior to a Board meeting on the day of the meeting. Upon prior authorization of the Chairman, charts, graphs, or other graphic devices to be used in conjunction with testimony may be brought into the Board room.

Section 30.12 – Approaching the Dais

Subject to the direction of the Chair, no persons other than the Board Members, and SCAQMD staff, and authorized representatives of the news media shall be admitted inside the area separating the dais from the seating area of the auditorium. Other persons may be admitted to this area by consent of the Chair.

Section 30.13 – Credentialed Press

Only credentialed press recording Governing Board meetings shall be admitted to the "Press Area" located at the front of the auditorium, on the left side.

Section 30.134 – Congregating in Aisles and Walkways

No persons shall stand or sit in the auditorium's aisles or walkways or block any doorway.

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Section 30.145 – Disruptive Conduct; Removal from the Meeting

The Chair may order the removal of any person from the Auditorium willfully interrupting the meeting so as to render the conduct of the meeting infeasible. Such willful interruption shall include shouting and other boisterous conduct, addressing the Board without being recognized, ~~not addressing the subject~~ willfully speaking on a subject not before the Board, failing to relinquish the podium when requested to do so, or otherwise preventing the Board from conducting its meeting in an orderly manner. Any person removed from a meeting may return to the meeting only if permission is granted upon motion adopted by a majority vote of the Board.