



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, NOVEMBER 6, 2015

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 9:00a.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 5:30p.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
Barry R. Wallerstein, D. Env., Executive Officer

Staff/Phone (909) 396-

CONSENT CALENDAR (Items 1 through 25)

Note: Consent Calendar items held for discussion will be moved to Item No. 26

1. Approve Minutes of October 2, 2015 Board Meeting **McDaniel/2500**

2. Set Public Hearing December 4, 2015¹ to Consider Amendments and/or Adoption to SCAQMD Rules and Regulations **Wallerstein/3131**
 - A. Amend Rule 1113 – Architectural Coatings **Fine/2239**


Amendments are being proposed to restrict the small container exemption for some categories, lower some VOC limits, change some coating categories, revise definitions, and clarify rule language. (Reviewed: Stationary Source Committee, October 16, 2015)

Budget/Fiscal Impact

3. Execute Contract to Cosponsor Study on Opportunities and Benefits of Deploying Next Generation Heavy-Duty Natural Gas Vehicles Operating on Renewable Natural Gas **Miyasato/3249**

A leading natural gas engine manufacturer is targeting mid-2016 to commercialize the first natural gas engine achieving 90% lower NOx emissions than the current emissions standard. In addition, renewable natural gas (RNG) is currently being produced in large volume for use as a transportation fuel. While the benefits of significantly cleaner combustion engines and the use of renewable fuels have been individually studied, there has been no comprehensive assessment focused specifically on the air quality benefits of having significantly lower NOx combustion engines operating on renewable fuels or the market potential for such deployment. This action is to execute a contract with Gladstein, Neandross & Associates to conduct such a study in an amount not to exceed \$100,000, comprised of \$50,000 from the Clean Fuels Fund (31) and \$50,000 from the Natural Gas Vehicle Partnership Fund (40). (Reviewed: Technology Committee, October 16, 2015; Recommended for Approval)

¹ Note: At its October 2, 2015 meeting, the Board set a public hearing for December 4, 2015 to Amend Rule 1110.2 – Emissions from Gaseous – and Liquid-Fueled Engines.

4. Recognize Revenue and Execute Contract for Development, Integration and Demonstration of Ultra-Low-Emission Natural Gas Engine for On-Road Heavy-Duty Vehicles  **Miyasato/3249**

The Board previously awarded contracts to Cummins Westport Inc. (CWI) and Cummins Inc. to develop next generation ultra-low-emission heavy-duty natural gas engines that are 90% cleaner than the current NOx emission standard. As a follow-on to this development project and given market demand for natural gas engines in the 11- to 13-liter range, the CEC, Southern California Gas Company and Clean Energy have expressed interest in cofunding the advancement of the current 11.9-liter natural gas engine to achieve ultra-low NOx emissions. These actions are to recognize revenues up to \$2.5 million and execute a contract with CWI for development, integration and demonstration of an 11.9-liter ultra-low-emission natural gas engine in an amount not to exceed \$4.25 million from the Clean Fuels Fund (31). (Reviewed: Technology Committee, October 16, 2015; Recommended for Approval)

5. Execute Contract to Develop Online Application Database for Carl Moyer Program **Minassian/2641**

The Carl Moyer Program receives several hundred applications for different types of vehicles and equipment during its annual open solicitation period. The projects must be evaluated for eligibility, cost-effectiveness, amount of funding, environmental justice ranking and other applicable factors before they can be considered for award. Electronic acceptance of the applications will expedite the evaluation and reporting process as well as enhance uploading information into the state's Carl Moyer Program database. This action is to execute a contract with Trinity Technology Group to develop an online application database for the Carl Moyer Program in an amount not to exceed \$262,960 from the administrative portion of the Carl Moyer Program AB 923 Fund (80). (Reviewed: Technology Committee, October 16, 2015; Recommended for Approval)

6. Execute Contract to Conduct 2016 Leaf Blower Exchange Program **Minassian/2641**

At its July 10, 2015 meeting, the Board approved release of a Program Announcement to solicit competitive bids from manufacturers of low- or zero-emission/low- noise leaf blowers. This action is to award a contract to Pacific STIHL to conduct the 2016 Leaf Blower Exchange Program in an amount not to exceed \$481,955 from the Rule 2202 AQIP Special Revenue Fund (27). (Reviewed: Mobile Source Committee, October 16, 2015; Recommended for Approval)

7. **Adopt Resolution Accepting Terms and Conditions for Proposition 1B–Goods Movement Program Grants** **Minassian/2641**

In August 2015, SCAQMD submitted applications to CARB for the Fiscal Year 2015-16 Proposition 1B-Goods Movement Program. This is the last round of funding for this Program with approximately \$267 million remaining for eligible projects and local agency administrative costs. Consistent with CARB's funding targets for each trade corridor and upon execution of grant agreements, SCAQMD expects to receive a total of \$137.9 million. Eligible projects will include heavy-duty diesel trucks, locomotives, ships at berth, cargo handling equipment and transport refrigeration units. CARB requires a Board resolution to enter into grant agreements for the allocated funds. This action is to adopt a resolution accepting terms and conditions for the Proposition 1B–Goods Movement Program grants and authorize the Executive Officer to enter into grant agreements with CARB. (Reviewed: Technology Committee, October 16, 2015; Recommended for Approval)

8. **Recognize Revenue and Appropriate Funds for U.S. EPA PAMS, U.S. EPA PM2.5 and U.S. Government Programs, Amend Contracts for Technical Support for U.S. EPA PAMS, and Issue RFQs and Purchase Orders for Air Monitoring Equipment and Upper Air Meteorology Equipment Warranty Services** **Tisopoulos/3123**

SCAQMD expects to be awarded Section 105 funds by the U.S. EPA in the estimated amount of \$1,217,270 for the 24th Year of the U.S. EPA PAMS Program, Section 103 funds by the California Air Pollution Control Officers Association in the estimated amount of \$25,000 for the U.S. EPA PM2.5 Program, and funds by the U.S. Government in the estimated amount of \$20,000 for the Enhanced Particulate Monitoring Program. These actions are to: 1) recognize revenue and appropriate funds into the FY 2015-16 Budget for the 24th Year PAMS, PM2.5 and Enhanced Particulate Monitoring Programs; 2) amend contracts for technical support for the PAMS Program; and 3) issue RFQs and purchase orders for air monitoring equipment and upper air meteorology equipment warranty services. (Reviewed: Administrative Committee, October 9, 2015; Recommended for Approval)

9. **Reissue RFP for Refurbishment of Pace Air Handlers at SCAQMD Headquarters** **Johnson/3018**

The current Pace air handlers are over 24 years old and have been operating 365 days a year, 20 or more hours per day. With a life expectancy of 15 to 20 years, dependability of the handlers is declining rapidly. Staff is requesting to refurbish the air handlers, which provide filtered conditioned air to SCAQMD headquarters, and will also increase efficiency and provide necessary back up. This action is to reissue an RFP to solicit proposals from qualified contractors to refurbish various air handlers. (Reviewed: Administrative Committee, October 9, 2015; Recommended for Approval)

10. **Execute Contract for Website Evaluation and Improvement** **Marlia/3148**

On May 1, 2015, the Board approved the release of an RFP to solicit

proposals to evaluate SCAQMD's current website (www.aqmd.gov), make recommendations for improvement/enhancement and, upon approval, implement those improvements. Of the proposals received, three were deemed technically qualified. To aid in identifying the best contractor for the improvement effort, the Executive Officer approved execution of contracts for each qualified contractor to perform an evaluation of SCAQMD's website and report their findings back to the Administrative Committee for final selection. One of the three vendors withdrew from proceeding further. This action is to approve a contract with Xivic, Inc., the contractor recommended by the Administrative Committee; the cost will be determined based on approved recommendations and cost provided by the contractor as part of the contract, not to exceed amounts allocated for this project in the FY 2015-16 budget. (Reviewed: Special Administrative Committee, June 17, 2015; Administrative Committee, July 17, September 11 and October 9, 2015; Recommended for Approval)

11. **Execute Contracts for Legislative Representation in Washington, D.C.** **Smith/3242**

At the July 10, 2015 meeting, the Board approved release of an RFP to solicit proposals for legislative representation in Washington, D.C. This action is to execute contracts with Carmen Group, Inc., Kadesh & Associates, LLC, and Cassidy & Associates for the agency's legislative representation in Washington, D.C. (Reviewed: Legislative Committee, October 9, 2015; Recommended for Approval)

12. **Recognize Revenue and Amend Contract for Technical Advisor Services to Community Members of Exide Technologies Advisory Group** **Alatorre/3122**

Since April, the California Department of Toxic Substances Control (DTSC) and SCAQMD have worked cooperatively to establish a contract to secure the services of a technical advisor to assist community representatives of the Exide Technologies Advisory Group. A \$50,000 sole source contract was executed between SCAQMD and L. Everett, LLC under SCAQMD's Executive Officer's authority. This action is to recognize revenue from DTSC to SCAQMD in the amount of \$50,000, and to appropriate those funds to increase the contract amount to \$100,000. (Reviewed: Administrative Committee, October 9, 2015; Recommended for Approval)

13. **Amend Salary Resolution to Establish Five Step Salary Range for Health Effects Officer Classification** **Johnson/3018**

To aid in the recruitment and selection for the Health Effects Officer position, staff is proposing to establish a five step salary range instead of a single designated annual salary listed in the Salary Resolution. There is an initial salary savings associated with this action should the position be filled at less than the single designated salary amount. Sufficient funding exists in the FY 2015-16 Budget to fill this position. (Reviewed: Personnel Committee; October 28, 2015; Recommended for Approval)

14. Approve Contract Awards and Modifications Approved by MSRC **Pettis**

As part of their FYs 2014-16 AB 2766 Discretionary Fund Work Program, the MSRC approved 37 new contracts under the Local Government Program, and a contract modification providing additional funds for programmatic outreach services. At this time the MSRC seeks Board approval of the contract awards and modification. (Reviewed: Mobile Source Air Pollution Reduction Review Committee, October 15, 2015; Recommended for Approval)

Action Item/No Fiscal Impact

15. Establish Board Meeting Schedule for Calendar Year 2016 **Wallerstein/3131**

The proposed Board Meeting Schedule for Calendar Year 2016 is submitted for Board consideration. The Administrative Committee meeting schedule, on the second Friday of each month, is included for information only. (Reviewed: Administrative Committee, October 9, 2015; Recommended for Approval)

16. Public Posting of Board's Amendments to Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities **Wiese/3460**

On October 2, 2015, the Board adopted Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities. Before adopting the proposed rule, the Board made four amendments to the staff proposal. This item is to provide in writing the amendments made by the Board. (No Committee Review)

Items 17 through 25 - Information Only/Receive and File

17. Legislative and Public Affairs Report **Smith/3242**

This report highlights the September 2015 outreach activities of Legislative and Public Affairs, which include: Environmental Justice Update, Community Events/Public Meetings, Business Assistance, and Outreach to Business and Federal, State, and Local Government. (No Committee Review)

18. Hearing Board Report **Camarena/2500**

This reports the actions taken by the Hearing Board during the period of September 1 through September 30, 2015. (No Committee Review)

19. Civil Filings and Civil Penalties Report **Wiese/3460**

This reports the monthly penalties from September 1 through September 30, 2015, and legal actions filed by the General Counsel's Office from September 1 through September 30, 2015. An Index of District Rules is attached with the penalty report. (Reviewed: Stationary Source Committee, October 16, 2015)

20. **Lead Agency Projects and Environmental Documents Received by SCAQMD** **Whynot/3104**
- This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between September 1, 2015 and September 30, 2015, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA. (Reviewed: Mobile Source Committee, October 16, 2015)
21. **Rule and Control Measure Forecast** **Fine/2239**
- This report highlights SCAQMD rulemaking activities and public workshops potentially scheduled for the year 2015 and portions of 2016. (No Committee Review)
22. **Approve Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2013-14** **Whynot/3104**
- This report contains data on the AB 2766 Subvention Fund Program for FY 2013-14 as requested by CARB. (Reviewed: Mobile Source Committee, October 16, 2015; Recommended for Approval)
23. **Annual Report on 457 Deferred Compensation Plan** **Johnson/3018**
- SCAQMD sponsors an IRS-approved 457 deferred compensation program for its employees. The Annual Report addresses the Board's responsibility for monitoring the activities of the Deferred Compensation Plan Committee and ensuring the Committee carries out its fiduciary duties and responsibilities under the Committee Charter. (Reviewed: Administrative Committee, October 9, 2015; Recommended for Approval)
24. **Report of RFQs Scheduled for Release in November** **O'Kelly/2828**
- This report summarizes the RFQs for budgeted services over \$75,000 scheduled to be released for advertisement for the month of November. (Reviewed: Administrative Committee, October 9, 2015; Recommended for Approval)
25. **Status Report on Major Projects for Information Management Scheduled to Start During First Six Months of FY 2015-16** **Marlia/3148**
- 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 projects to be initiated by Information Management during the first six months of FY 2015-16. (No Committee Review)

26. Items Deferred from Consent Calendar

BOARD CALENDAR

27. Administrative Committee (Receive & File) **Chair: Burke** **Wallerstein/3131**

28. Legislative Committee (Receive & File) **Chair: Mitchell** **Smith/3242**

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

Agenda Item	Recommendation
Interview and Recommend Execution of Contract(s) for Legislative Representation in Washington, D.C.	Authorize the Chairman to execute contracts with The Carmen Group; Cassidy & Associates, Inc.; and Kadesh & Associates, Inc. for Legislative Representation in Washington, D.C.

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

30. Stationary Source Committee (Receive & File) **Chair: Yates** **Nazemi/2662**

31. Technology Committee (Receive & File) **Chair: J. Benoit** **Miyasato/3249**

32. Mobile Source Air Pollution Reduction Review Committee (Receive & File) **Board Liaison: Antonovich** **Hogo/3184**

33. California Air Resources Board Monthly Report (Receive & File) **Board Rep: Mitchell** **McDaniel/2500**

34. 2016 Air Quality Management Plan White Papers **Fine/2239**

The draft final Energy Outlook White Paper was released for final public review at the October 2015 Board meeting. An opportunity for public comments is being provided today. In addition, the draft Industrial Facility Modernization White Paper is being released today for public review, and the Board will receive public comments at the December 4, 2015 Board Meeting. Each topic was presented to the appropriate Board Committee for review.

PUBLIC HEARING

35. 2014 Annual Report on AB 2588 Air Toxics Hot Spots Program **Whynot/3104**

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) requires local air pollution control districts to prepare an annual report. This annual update describes the various activities taken in 2014 to satisfy the requirements of AB2588 and Rule 1402, such as quadrennial emissions reporting and prioritization, and the preparation and review of Health Risk Assessments and Risk Reduction Plans. This report also provides a summary of additional SCAQMD activities related to toxic air contaminants such as toxics rulemaking, toxics emissions inventory development, the MATES IV study, and permitting. (Reviewed: Stationary Source Committee, October 16, 2015)

36. Amend Rule 1156 – Further Emission Reductions from Cement Manufacturing Facilities **Fine/2239**

The proposed amendment seeks to minimize hexavalent chromium (Cr+6) emissions and risk from cement manufacturing operations and the property after facility closure while streamlining Cr+6 ambient monitoring. The proposed amendments will establish the conditions under which monitoring can be reduced or eliminated. In addition, the proposed amendments include a proposed modification to the fence-line ambient Cr+6 threshold to reflect changes made by the Office of Environmental Health Hazard Assessment to risk assessment guidelines, as well as proposing minor revisions. This action is to adopt the resolution: 1) Certifying the Final Environmental Assessment for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities; and 2) Amending Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities. (Reviewed: Stationary Source Committee, April 17, May 15 and September 18, 2015)

37. Amend Regulation XX - Regional Clean Air Incentives Market (RECLAIM) **Fine/2239**

Staff is recommending that the public hearing on this item be continued to the December 4, 2015 Board Meeting.

Proposed amendments to Regulation XX (RECLAIM) will achieve additional NOx reductions pursuant to the 2012 AQMP Control Measure #2012CMB-01 and requirements for demonstrating Best Available Retrofit Control Technology equivalency in accordance with California Health and Safety Code §40440. A portion of the RECLAIM Trading Credit (RTC) reductions for newer power producing facilities will be placed into a Regional NSR Holding Account, where the RTCs could also be used for emergency power generation needs. In addition to rule clarifications, other changes would include a delay in Relative Accuracy Test Audit due dates. (Reviewed: Stationary Source Committee, March 21, 2014, July 24 and October 16, 2015; Special Stationary Source Committee, September 23, 2015)

OTHER BUSINESS

38. Request to City of Diamond Bar to Provide Alternative Fuel Signage on City Streets **E**

Miyasato/3249

At the direction of the Board, staff initiated discussions with Gateway Corporation, the City of Diamond Bar (City) and Caltrans to place signs along the freeways and arterial roads surrounding SCAQMD Headquarters to direct drivers and fleet operators to the SCAQMD's CNG, hydrogen and electric charging stations. The City has an ordinance for off-site billboard signage that does not allow the typical signage for alternative fuel stations as used by Caltrans or other municipalities. The City staff requested that SCAQMD make a formal request to the City to consider alternatives under the existing ordinance or to amend its current sign ordinance, given the benefits of alternative fuel vehicles to the environment and the residents of the City. This action is to approve a letter from the Chairman to the City requesting the City's consideration of SCAQMD's proposal to install directional signage for the SCAQMD alternative fuel stations. (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.

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

Under the approval authority of the Executive Officer, the District will enter into a contract modification (Contract No. C153261) with United Parcel Service, Inc. The contractor is a potential source of income for Governing Board Member Joseph Lyou, which qualifies for the remote interest exception of Section 1090 of the California Government Code. Dr. Lyou abstained from any participation in the making of the contract modification.

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 section 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:

- California Nozzle Specialists, Inc. v. SCAQMD, Los Angeles County Superior Court Case No. BS152037 (Public Records Act);
- Communities for a Better Environment v SCAQMD, Los Angeles Superior Court Case No. BS153472 (Phillips 66);

- 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);
- Exide Technologies, Inc., Petition for Variance, SCAQMD Hearing Board Case No. 3151-31;
- In re: Exide Technologies, Inc., U.S. Bankruptcy Court for the District of Delaware Case No. 13-11482 (KJC) (Bankruptcy case);
- 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);
- Friends of the Eel River v. North Coast Railway Authority, California Supreme Court Case No. S222472 (amicus brief);
- Physicians for Social Responsibility, et al. v. U.S. EPA, U.S. Court of Appeals, Ninth Circuit, Case No. 14-73362 (1-Hour ozone);
- SCAQMD v. City of Moreno Valley, et al., Riverside County Superior Court, Case No. RIC 1511213 (World Logistics);
- SCAQMD v. U.S. EPA, U.S. Court of Appeals, Ninth Circuit, Case No. 13-73936 (Morongo Redesignation);
- SCAQMD v. U.S. EPA, U.S. Court of Appeals, Ninth Circuit, Case No. 15-71600 (Pechanga Redesignation);
- Sierra Club v. County of Fresno, California Supreme Court Case No. S219783 (amicus brief);
- Sierra Club, et al. v. U.S. EPA, U.S. District Court for Northern District of California Case No. 3:14-CV-04596 (PM2.5 designation to serious); and
- WildEarth Guardians v. U.S. EPA, D.C. Circuit Court Case No. 14-1145 (PM2.5 moderate designation).

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 (two cases).

CONFERENCE WITH LABOR NEGOTIATORS

In addition, it is also necessary for the Board 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: William Johnson; Represented Employees: Teamsters Local & SCAQMD Professional Employees Association];

and to confer with:

- labor negotiators regarding unrepresented employees [Agency Designated Representative: William Johnson; 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

AQIP = Air Quality Investment Program	NGV = Natural Gas Vehicle
AQMP = Air Quality Management Plan	NOx = Oxides of Nitrogen
AVR = Average Vehicle Ridership	NSPS = New Source Performance Standards
BACT = Best Available Control Technology	NSR = New Source Review
Cal/EPA = California Environmental Protection Agency	OEHHA = Office of Environmental Health Hazard Assessment
CARB = California Air Resources Board	PAMS = Photochemical Assessment Monitoring Stations
CEMS = Continuous Emissions Monitoring Systems	PAR = Proposed Amended Rule
CEC = California Energy Commission	PEV = Plug-In Electric Vehicle
CEQA = California Environmental Quality Act	PHEV = Plug-In Hybrid Electric Vehicle
CE-CERT =College of Engineering-Center for Environmental Research and Technology	PM10 = Particulate Matter ≤ 10 microns
CNG = Compressed Natural Gas	PM2.5 = Particulate Matter ≤ 2.5 microns
CO = Carbon Monoxide	PR = Proposed Rule
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	VMT = Vehicle Miles Traveled
NATTS =National Air Toxics Trends Station	ZEV = Zero Emission Vehicle
NESHAPS = National Emission Standards for Hazardous Air Pollutants	

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BOARD MEETING DATE: November 6, 2015

AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the October 2, 2015 meeting.

RECOMMENDED ACTION:

Approve Minutes of the October 2, 2015 Board Meeting.

Sandra McDaniel,
Clerk of the Boards

SM:dg

FRIDAY, OCTOBER 2, 2015

Notice having been duly given, the regular meeting of the South Coast Air Quality Management District Board was held at the Millennium Biltmore Hotel Los Angeles, 506 South Grand Avenue, Los Angeles, California. Members present:

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

Mayor Dennis R. Yates, Vice Chairman
Cities of San Bernardino County

Mayor Michael D. Antonovich (arrived at 9:35 a.m.)
County of Los Angeles

Mayor Ben Benoit
Cities of Riverside County

Supervisor John J. Benoit
County of Riverside

Councilmember Michael A. Cacciotti (arrived at 9:15 a.m.)
Cities of Los Angeles County – Eastern Region

Dr. Joseph K. Lyou
Governor's Appointee

Supervisor Shawn Nelson (arrived at 10:20 a.m.)
County of Orange

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

Mayor Miguel A. Pulido (left at 11:20 a.m.)
Cities of Orange County

Supervisor Janice Rutherford
County of San Bernardino

Members absent:

Councilmember Joe Buscaino
City of Los Angeles

Councilmember Judith Mitchell
Cities of Los Angeles County – Western Region

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

- Pledge of Allegiance: Led by Dr. Lyou.
- Opening Comments

Dr. Barry R. Wallerstein, Executive Officer. Noted that errata sheets for Items 28 and 34 were distributed to Board members and copies made available to the public.

- Swearing in of Reappointed Board Member Dr. Clark E. Parker, Sr.

Chairman Burke administered the oath of office to Dr. Parker, who was reappointed to the Board by the Senate Rules Committee, for a term ending January 15, 2020.

- Election of Chair and Vice Chair for Terms January 2016 – January 2018

The floor was opened for nominations.

MAYOR YATES NOMINATED DR. WILLIAM A. BURKE, PRESENT CHAIR TO SERVE AS CHAIR AND BEN BENOIT TO SERVE AS VICE CHAIR, MAYOR PULIDO SECONDED THE NOMINATION. THERE BEING NO FURTHER NOMINATIONS AND NO OBJECTIONS, THE NOMINATIONS WERE CLOSED, AND THE BOARD CAST A UNANIMOUS VOTE (Absent: Antonovich, Buscaino, Cacciotti, Mitchell and Nelson), RE-ELECTING DR. WILLIAM BURKE AS CHAIR AND ELECTING MAYOR BEN BENOIT AS VICE CHAIR FOR THE TERMS JANUARY 15, 2016 THROUGH JANUARY 14, 2018.

(Councilman Cacciotti arrived at 9:15 a.m.)

CONSENT CALENDAR

1. Approve Minutes of September 4, 2015 Board Meeting
2. Set Public Hearings to Consider Amendments and/or Adoption to SCAQMD Rules and Regulations

November 6, 2015:

- A. Amend Regulation XX - Regional Clean Air Incentives Market (RECLAIM)

- B. Amend Rule 1156 - Further Emission Reductions from Cement Manufacturing Facilities

December 4, 2015:

- C. Amend Rule 1110.2 - Emissions from Gaseous- and Liquid-Fueled Engines

Budget/Fiscal Impact

3. Execute Contracts to Implement Two Major Recommendations by Abt Associates to Enhance Socioeconomic Assessments
4. Execute Contract for Enhancement of Web-Based Annual Emissions Reporting Tool
5. Execute Contract to Cosponsor Hydrogen Station Equipment Performance Project **E**
6. Execute Contract for Renewable Natural Gas Production and Vehicle Demonstration Project **E**
7. Recognize Funds and Amend Contracts to Extend Implementation of Enhanced Fleet Modernization Program
8. Execute Contracts for FY 2014-15 "Year 17" Carl Moyer Program and SOON Provision
9. Approve Awards for School Bus Replacements and Retrofits **E**
10. Recognize Revenue and Appropriate Funds to Support Air Quality Sensor Performance Evaluation Center Program
11. Execute Contract for Security Guard Services at Diamond Bar Headquarters
12. Amend Contracts to Provide Short- and Long-Term Systems Development, Maintenance and Support Services
13. Execute Contract for Community Outreach with Los Angeles Sentinel, Inc.

14. Execute Contract for Consultant Services for SCAQMD Environmental Justice Outreach and Initiatives
15. Approve Contract Awards and Allocation Approved by MSRC

Action Item/No Fiscal Impact

16. Amend SCAQMD Conflict of Interest Code and Incorporate Code, as Amended, into SCAQMD Administrative Code

Dr. Lyou announced his abstention on Item No. 7 because Gladstein Neandross and Associates is a potential source of income to him and on Item No. 14 because The Better World Group is a potential source of income to him.

Supervisor Benoit announced his abstention on Item No. 6 because of campaign contributions from CR&R. He also announced that he serves as a Board Member for the Coachella Valley Associated Governments which is involved with Item No. 15.

Mayor Benoit announced that he has an interest in the City of Wildomar which is involved with Item No. 15.

Agenda Items 2 and 7 were withheld for comment and discussion.

MOVED BY LYOU, SECONDED BY CACCIOTTI, AGENDA ITEMS 1, 3 THROUGH 6 AND 8 THROUGH 16 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: B. Benoit, J. Benoit (*except Item #6*), Burke, Cacciotti, Lyou (*except Item #14*), Parker, Pulido, Rutherford and Yates.

NOES: None.

ABSTAIN: J. Benoit (*Item #6 only*) and Lyou (*Item #14 only*).

ABSENT: Antonovich, Buscaino, Mitchell and Nelson.

24. Items Deferred from Consent Calendar

2. Set Public Hearings to Consider Amendments and/or Adoption to SCAQMD Rules and Regulations

November 6, 2015:

- A. Amend Regulation XX - Regional Clean Air Incentives Market (RECLAIM)
- B. Amend Rule 1156 - Further Emission Reductions from Cement Manufacturing Facilities

December 4, 2015:

- C. Amend Rule 1110.2 - Emissions from Gaseous- and Liquid-Fueled Engines

The following individuals addressed the Board on Agenda Item No. 2A.

Angela Johnson Meszaros, Earth Justice, asked the Board to stay on track with the adoption of RECLAIM at the November 6 meeting.

Curtis Coleman, Southern California Air Quality Alliance, noted that there is still work to be done before Regulation XX is ready for hearing and that hopefully these issues can be resolved by the October Stationary Source Committee meeting.

Sue Gornick, Western States Petroleum Association, addressed several issues that remain unresolved, including the size of the shave above and beyond BARCT, costs associated with implementation, and an aggressive implementation schedule.

MOVED BY YATES, SECONDED BY LYOU,
AGENDA ITEM 2 APPROVED AS
RECOMMENDED, BY THE FOLLOWING
VOTE:

AYES: B. Benoit, J. Benoit, Burke,
Cacciotti, Lyou, Parker, Pulido,
Rutherford and Yates.

NOES: None.

ABSENT: Antonovich, Buscaino, Mitchell and
Nelson.

7. Recognize Funds and Amend Contracts to Extend Implementation of Enhanced Fleet Modernization Program

Dr. Lyou left the room during discussion of Item 7.

Supervisor Rutherford asked staff to provide some background on the projects.

Henry Hogo, Assistant DEO/Technology Advancement, responded that due to an overwhelming interest in the program beyond the anticipated number of vouchers approved by the Board in December 2014, the contracts that are being amended will provide for consultants to focus on case management to handle the applications that have been received and not on continuing outreach and marketing as originally proposed.

MOVED BY CACCIOTTI, SECONDED BY J. BENOIT, AGENDA ITEM 7 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: B. Benoit, J. Benoit, Burke, Cacciotti, Parker, Pulido, Rutherford and Yates.

NOES: None.

ABSTAIN: Lyou.

ABSENT: Antonovich, Buscaino, Mitchell and Nelson.

Items 17 through 23 - Information Only/Receive and File

- 17. Legislative and Public Affairs 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. Report of RFPs Scheduled for Release in October
23. Status Report on Major Projects for Information Management Scheduled to Start During First Six Months of FY 2015-16

MOVED BY YATES, SECONDED BY B. BENOIT, AGENDA ITEMS 17 THROUGH 23 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: B. Benoit, J. Benoit, Burke, Cacciotti, Parker, Pulido, Rutherford and Yates.

NOES: None.

ABSTAIN: Lyou.

ABSENT: Antonovich, Buscaino, Mitchell and Nelson.

BOARD CALENDAR

25. Administrative Committee
26. Mobile Source Committee
27. Stationary Source Committee
28. Special Stationary Source Committee

An errata sheet containing an amendment to page 2 of the Committee's Draft Meeting Minutes was provided to the Board Members and copies made available to the public.

29. Technology Committee
30. Mobile Source Air Pollution Reduction Review Committee

31. California Air Resources Board Monthly Report

MOVED BY YATES, SECONDED BY J. BENOIT, AGENDA ITEMS 25 THROUGH 31 APPROVED AS RECOMMENDED, WITH THE MODIFICATION TO ITEM NO. 28 AS STATED IN THE ERRATA SHEET AND SET FORTH BELOW, RECEIVING AND FILING THE COMMITTEE, MSRC AND CARB REPORTS, BY THE FOLLOWING VOTE:

AYES: B. Benoit, J. Benoit, Burke, Cacciotti, Lyou, Parker, Pulido, Rutherford and Yates.

NOES: None.

ABSENT: Antonovich, Buscaino, Mitchell and Nelson.

Amend the statement on Page 2, Paragraph 5 of the draft minutes of the September 23, 2015 Special Meeting of the Stationary Source Committee as follows:

Dr. Lyou stated that he was not concerned with the lack of consensus because directing staff to compromise with stakeholders only encourages those stakeholders to take extreme positions. He recommended that if staff's analysis shows what level of NOx reductions are required to meet our obligations to clean the air and meet federal and state ambient air quality standards, we should proceed with presenting the current staff proposal to the full Board.

32. 2016 Air Quality Management Plan White Papers

Dr. Philip Fine, DEO/Planning and Rules, provided a status report on the finalization of the AQMP White Papers.

The following individuals addressed the Board on Agenda Item No. 32.

Rita Loof, Radtech, noted that they support the vision articulated in the White Papers; and stressed the importance of holding mobile sources accountable as they have been identified as the major contributor to the pollution problem; and urged for more incentives to be put in place for stationary sources that go above and beyond to control emissions.

Dr. Wallerstein noted that the importance of controlling mobile source emissions will be a key emphasis in the 2016 AQMP.

David Englin, BizFed, expressed his appreciation for the relationship that has been established with staff through the White Paper process; noted that they look forward to focusing on the AQMP and the draft control measures that will be released; and urged for adequate time for stakeholder review and input on those measures.

Written Comments Submitted by:
Michael W. Lewis, Construction Industry Air Quality Coalition

(Supervisor Antonovich arrived at 9:35 a.m.)

Supervisor Rutherford noted that she expected the White Papers to include more in-depth details about what control measures will be selected and how they will be implemented; urged that it be made clear that increasing commercialization and incentives for clean air technologies is a priority and ensuring that the appropriate funding is allocated for such. She stressed the importance of balancing air quality concerns with health needs and economic considerations, adding that one way she suggests to address some of these issues is to create a dialogue with the business community and city planners about how to get jobs close to where people reside.

Chairman Burke noted that he has spoken with Supervisor Nelson on the topic of creating jobs near transportation hubs and that it will be a continued topic of interest.

Dr. Lyou explained that, in the past, the District hosted a gathering of investors and technology developers to communicate about their ideas and products, adding that it might be prudent to hold another such event to encourage the commercialization of low-polluting, air quality control technologies. He added that it is important to come up with a way that those companies that take the risk to invest in cleaner technologies are not put at an economic disadvantage when a newer, clean air technology is developed.

MOVED BY YATES, SECONDED BY
CACCIOTTI, AGENDA ITEM 32 APPROVED
AS RECOMMENDED, BY THE FOLLOWING
VOTE:

AYES: B. Benoit, J. Benoit, Burke,
Cacciotti, Lyou, Parker, Pulido,
Rutherford and Yates.

NOES: None.

ABSENT: Antonovich, Buscaino, Mitchell and
Nelson.

PUBLIC HEARINGS

33. Adopt Proposed Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities (*Continued from September 4, 2015 Board Meeting*)

Susan Nakamura, Director of Strategic Initiatives, gave the staff presentation.

(Supervisor Nelson arrived at 10:20 a.m.)

The public hearing was opened and the following individuals addressed the Board on Agenda Item 33.

DAVID WEINBERG, Battery Council International

Spoke on behalf of four battery manufacturers based in the South Coast Air Basin, noting that even though they do not agree with specific provisions, they are not objecting to an ambient lead requirement that is one-third lower than the National Ambient Air Quality Standard, ambient monitoring, and total enclosures. He stressed that there are two issues that need to be resolved: 1) the addition of a definition of Primary Cause and 2) reducing the frequency of sweeping or vacuuming of parking lots; and added that if these outstanding issues are not addressed, the Battery Council International requests that the rule be rejected.

DAVID PETTIT, NRDC

Stressed the importance of protecting public health by limiting any amounts of lead escaping from these facilities.

JAMES WESTBROOK, Senior Aerospace

Expressed opposition to the rule which groups low lead-emitting ancillary operations with smelters and battery manufacturing; and noted that the monitoring requirements of the rule are costly for an organization of their type to implement.

ANGELA JOHNSON MESZAROS, Earth Justice

Commented on the harmful effects of lead exposure, noting that lead is fully absorbed by the body; and expressed support for more stringent regulation of lead emissions.

JAMES SIMONELLI, California Metals Coalition

Expressed support for the goal to reduce lead emissions, but cautioned against the high cost and effort involved in reaching the 0.100 standard; and requested flexibility with the housekeeping requirements.

MARK OLSEN, Gerdau

Explained that Gerdau is the only steel recycler and seismic rebar manufacturer in California; expressed support for the current version of the proposed rule; and noted that upon adoption Gerdau will commence the construction of an anticipated fifty million dollar environmental control system and

other environmental improvements to make the Rancho Cucamonga plant one of the cleanest in North America. (Submitted Written Comments)

TERRY CAMPBELL, U.S. Battery Manufacturing

Noted that while they agree that Rule 1420 needs to be changed, it needs to be done with requirements that are manageable while trying to meet the goal reductions; and expressed concern that the rule limits their ability to expand business operations.

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

Ms. Nakamura explained that the proposed increase to the sweeping requirement for paved areas, is due to the concern of elevated levels of ambient concentration, adding that under Rule 1420.1 the facilities have been performing the sweeping once per shift to control fugitive emissions. In regards to the issue of alternative housekeeping measures, she noted that it is standard practice for pre-approval of any substitute measure to be granted by the Executive Officer. She added that in the event a facility believes the Executive Office has rendered an improper decision, they may request an appeal through the Hearing Board.

Kurt Wiese, General Counsel, spoke in regards to the “primary cause” clause which, as proposed, would provide relief for a plant that is found to not be the primary cause of a lead exceedance, adding that the industry is asking for the definition to indicate that if there is any other contributor to an exceedance, the facility would not to be held responsible.

Mayor Yates confirmed that it would be prudent to add staff’s definition of primary cause to the rule language.

Dr. Wallerstein suggested that the rule be amended to allow the facility 14 days, instead of 5 business days, to respond to or appeal a violation of the ambient lead concentration limit when they believe the monitoring is due to external sources.

Supervisor Benoit expressed appreciation for staff’s efforts to continue to protect public health from lead exposure; noted his concern with the large increase in the required sweeping from once weekly to once per shift, and the potential job losses in the coming years as noted in the staff report; and cautioned against the potential to drive the battery manufacturers out of the area which will give way to additional concerns including the increased transportation of lead products. He recommended that the sweeping of outside areas be required twice per week, and in regards to the voluntary substitution of alternative housekeeping measures that if a facility does not receive a response from the District within seven days of submittal, their request has been deemed to have been approved.

Dr. Lyou suggested that the motion to approve the rule also include the change Dr. Wallerstein recommended which provides a facility 14 days to respond

to an exceedance in the event they believe such an exceedance is the result of an outside source.

Supervisor Rutherford suggested developing a Board policy that will provide some certainty to companies who make large investments that they will not be required to make additional investments for a similar issue in the near-term.

Chairman Burke confirmed that this topic has been discussed previously; and noted that he is open to any suggestion on a possible approach to further address it.

Supervisor Nelson stressed the importance of working with the business community and not continually overburdening them with further regulations.

Dr. Wallerstein suggested that the AQMP would be a good avenue to address this issue, as it will be the forerunner of future regulations by the Board. He added that perhaps Gerdau could be used as a case study to determine the potential for establishing policy guidelines in this regard.

Mayor Pulido suggested that an ad-hoc committee be created that could address ways to encourage industry to make investments for cleaner air as well as protect their investments; and volunteered to participate in such a committee to work toward creating a balance between regulation and fostering a good relationship with the business community.

Chairman Burke confirmed the importance of addressing this issue, and asked that any Board Members who would like to serve on such a committee express their interest to him.

In response to Mayor Yates' request for comment about how a company might increase their throughput as the concern was raised by speakers, Dr. Wallerstein noted that each case would be treated individually, but requests for increased limits on operating permits are often approved.

MOVED BY J. BENOIT, SECONDED BY
NELSON, AGENDA ITEM NO. 33 APPROVED
AS RECOMMENDED BY STAFF WITH THE
MODIFICATIONS NOTED BELOW,
ADOPTING RESOLUTION NO. 15-20
CERTIFYING THE FINAL ENVIRONMENTAL
ASSESSMENT FOR PROPOSED RULE
1420.2 AND ADOPTING RULE 1420.2 –
EMISSIONS STANDARDS FOR LEAD FROM
METAL MELTING FACILITIES, BY THE
FOLLOWING VOTE:

AYES: Antonovich, B. Benoit, J. Benoit, Burke, Cacciotti, Lyou, Nelson, Parker, Pulido, Rutherford and Yates.

NOES: None.

ABSENT: Buscaino and Mitchell.

Modify Proposed Rule 1420.2 as follows:

- Change the outdoor sweeping provision from once weekly to twice weekly;
- For alternative housekeeping measures, instead of requiring written approval by the Executive Officer, allow the facility to submit its alternative measures to the Executive Officer, and proceed with implementation of those measures if after 7 days they have not been notified by the Executive Officer that there is a problem;
- Allow the facility 14 days (instead of 5 business days) to respond to a violation of the ambient lead concentration limit when they believe the overage is due to other sources;
- Take the definition of “primary cause” stated in the staff report, and place it in the rule.

34. Amend Rule 1106 – Marine Coating Operations, as set forth in Proposed Amended Rule 1106 - Marine and Pleasure Craft Coating Operations, and Rescind Rule 1106.1 – Pleasure Craft Coating Operations

Philip Fine, DEO/Planning and Rules, gave the staff presentation.

The public hearing was opened and the following individuals addressed the Board on Agenda Item 34.

CAROL KAUFMAN, Metropolitan Valley Water District

Explained that in their operation as the nation’s largest provider of treated drinking water to more than 19 million people throughout six counties, they utilize small watercraft for inspections, sampling and maintenance activities; and thanked staff for their cooperation throughout the amendment process which led to the inclusion of the viscosity-based exemption from the traditional transfer efficiency requirements.

DOUG DELONG, ADDU Enterprises

Expressed opposition to the proposal which will not result in any VOC reductions, but will burden small businesses with additional paperwork and provide a possible opportunity for proprietary information to be released. He added that businesses may be forced to pass the cost of compliance onto the end-user.

(Mayor Pulido left at 11:20 a.m.)

RITA LOOF, RadTech

Expressed opposition to the proposal because she said that it places expansive administrative reporting requirements on manufacturers when the District already has sufficient records from UV/EB facilities; and requested an exemption for energy curable coatings that contain less than 50 grams per liter.

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

Supervisor Benoit highlighted a concern that the staff report identifies that no additional costs or other socioeconomic impacts are anticipated, but the speakers indicated that there will in fact be some costs associated with this additional reporting.

In response to Chairman Burke's inquiry into how much VOC emissions are the result of boat bottom paint, Dr. Fine confirmed that the emissions are fairly low and that the amendment is not targeted at obtaining VOC reductions; rather it is to promote clarity and consistency, and to gain a better accounting of the products used through the recordkeeping provision.

DR. LYOU MOVED TO APPROVE THE STAFF
RECOMMENDATION FOR ITEM NO. 34,
SECONDED BY COUNCILMAN CACCIOTTI
BUT FAILED BY THE FOLLOWING VOTE:

AYES: Cacciotti and Lyou.

NOES: Antonovich, B. Benoit, J. Benoit,
Burke, Nelson, Parker, Rutherford
and Yates.

ABSENT: Buscaino, Mitchell and Pulido.

The Public Comment Period was taken out of order.

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

Assemblyman Sebastian Ridley-Thomas, thanked the Board for their coordination with the newly created Los Angeles Caucus, which includes 39 members of the legislature that represent portions of Los Angeles County. He noted that their priorities to address within the region include transportation, water and homelessness and they hope to partner with the District on some of these issues.

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OTHER BUSINESS

35. Recognize Revenue to Develop and Demonstrate Catenary Zero-Emission Goods Movement System

Dr. Lyou announced his abstention on Item No. 35 because Los Angeles Metropolitan Transportation Authority and the Port of Long Beach are potential sources of income to him, and he left the room.

MOVED BY YATES, SECONDED BY NELSON, AGENDA ITEM 35 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: B. Benoit, Burke, Cacciotti, Nelson, Parker, Rutherford and Yates.

NOES: None.

ABSTAIN: Lyou.

ABSENT: Antonovich, Buscaino, J. Benoit, Mitchell and Pulido.

CLOSED SESSION

The Board recessed to closed session at 11:35 a.m., pursuant to Government Code sections 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 session.

ADJOURNMENT

There being no further business, the meeting was adjourned by Kurt Wiese at 12:00 p.m.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on October 2, 2015.

Respectfully Submitted,

Denise Garzaro
Senior Deputy Clerk

Date Minutes Approved: _____

Dr. William A. Burke, Chairman

ACRONYMS

- AQMP = Air Quality Management Plan
- BARCT = Best Available Retrofit Control Technology
- CARB = California Air Resources Board
- CEQA = California Environmental Quality Act
- FY = Fiscal Year
- MSRC = Mobile Source (Air Pollution Reduction) Review Committee
- NAAQS = National Ambient Air Quality Standards
- RFP = Request for Proposals
- SOON = Surplus Off-Road Opt-In for NOx
- U.S. EPA = United States Environmental Protection Agency

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BOARD MEETING DATE: November 6, 2015

AGENDA NO. 2

PROPOSAL: Set Public Hearing December 4, 2015 to Consider Amendments and/or Adoption to SCAQMD Rules and Regulations

Amend Rule 1113 – Architectural Coatings. Amendments are being proposed to restrict the small container exemption for some categories, lower some VOC limits, change some coating categories, revise definitions, and clarify rule language.
(Reviewed: Stationary Source Committee, October 16, 2015)

The complete text of the proposed amendments, staff report and other supporting documents will be available from the District’s Public Information Center, (909) 396-2550 and on the Internet (www.aqmd.gov) as of November 4, 2015.

RECOMMENDED ACTION:


Set public hearing December 4, 2015 to amend Rule 1113.

Barry R. Wallerstein, D.Env.
Executive Officer

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BOARD MEETING DATE: November 6, 2015

AGENDA NO. 3

PROPOSAL: Execute Contract to Cosponsor Study on Opportunities and Benefits of Deploying Next Generation Heavy-Duty Natural Gas Vehicles Operating on Renewable Natural Gas 

SYNOPSIS: A leading natural gas engine manufacturer is targeting mid-2016 to commercialize the first natural gas engine achieving 90% lower NOx emissions than the current emissions standard. In addition, renewable natural gas (RNG) is currently being produced in large volume for use as a transportation fuel. While the benefits of significantly cleaner combustion engines and the use of renewable fuels have been individually studied, there has been no comprehensive assessment focused specifically on the air quality benefits of having significantly lower NOx combustion engines operating on renewable fuels or the market potential for such deployment. This action is to execute a contract with Gladstein, Neandross & Associates to conduct such a study in an amount not to exceed \$100,000, comprised of \$50,000 from the Clean Fuels Fund (31) and \$50,000 from the Natural Gas Vehicle Partnership Fund (40).

COMMITTEE: Technology, October 16, 2015; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with Gladstein, Neandross & Associates in an amount not to exceed \$100,000, comprised of \$50,000 from the Clean Fuels Fund (31) and \$50,000 from the Natural Gas Vehicle Partnership Fund (40), to conduct a study to characterize the strengths and opportunities for wide-scale commercial deployment of next generation heavy-duty engines fueled by RNG.

Barry R. Wallerstein, D.Env.
Executive Officer

MMM:HH

Background

The SCAQMD, CEC and Southern California Gas Company (Gas Company) are cosponsoring the development of the next generation of cleaner ultra low-NOx on-road heavy-duty combustion engines that achieve a 90 percent reduction in NOx emissions

compared to the current emissions standard. These “near-zero” emission engines will play a significant role for the region to attain federal ambient air quality standards. Cummins Westport Inc. (CWI), one of the contracted engine manufacturers, recently announced that the 8.9 liter heavy-duty natural gas engine will be commercialized in the mid-2016 timeframe. CWI plans to develop and commercialize two additional heavy-duty natural gas engines both achieving the 90 percent reduction level in the 2018 to 2023 timeframe.

Given the focus on climate change, the natural gas industry has been expanding its efforts to provide biomethane or renewable natural gas (RNG) to the transportation fuels market. Clean Energy, for example, is providing RNG to its customers in the South Coast region. Other entities such as CR&R and Waste Management Inc. are producing RNG at their transfer facilities and landfills, respectively. In addition, as a condition to be eligible for the state’s Greenhouse Gas Reduction Funds, CARB is requiring any vehicle deployment to use renewable fuels. As RNG use continues to increase, there is interest in further understanding the opportunities to introduce RNG as a transportation fuel and how RNG can be introduced into the natural gas pipeline.

While the two programs have been evaluated for their environmental benefits, there is no study focused specifically on the air quality benefits of having significantly lower NO_x combustion engines operating on renewable fuels or the market potential for such deployment. Consequently, a study has been proposed to characterize the strengths and opportunities for wide-scale commercial deployment of next generation heavy-duty engines fueled by RNG.

Proposal

This action is to execute a contract with Gladstein, Neandross & Associates (GNA) to conduct a study on the opportunities and benefits of deploying next generation heavy-duty natural gas vehicles operating on RNG. The study will take a closer look at the criteria pollutant and greenhouse gas benefits of ultra low-NO_x natural gas engines, the opportunities and cost to deploy such engines, and the market challenges. The study will also evaluate the market success of RNG and the future opportunities and challenges of increasing the use of RNG as a transportation fuel. The California Natural Gas Vehicle Partnership (CNGVP) had already been discussing conducting a similar study, but on a much smaller scale. At its August 11, 2015 meeting, the CNGVP Steering Committee approved cosponsoring the GNA study. The American Gas Association, Clean Energy and the Gas Company will also cosponsor the study.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for sole source award is made under Section B.2.d(1): “Projects involving cost sharing by multiple sponsors.” The proposed study will be cosponsored by the American Gas Association, CNGVP, Clean Energy and the Gas Company.

Benefits to SCAQMD

The Air Quality Management Plan relies upon the accelerated implementation of advanced technologies within Southern California to achieve federal and state ambient air quality standards and further reductions in air toxic exposure. Conversion of diesel-powered vehicles to natural gas-powered vehicles can significantly reduce criteria pollutants, GHG emissions and the use of petroleum-based fuels. This proposed project is included in the *Technology Advancement Office Clean Fuels Program 2015 Plan Update* under “Fuels/Emissions Studies” in the category “Identify and Demonstrate In-Use Fleet Emissions Reduction Technologies & Opportunities.”

Resource Impacts

Total funding from the SCAQMD shall not exceed \$100,000, comprised of \$50,000 from the Clean Fuels Fund (31) and \$50,000 from the Natural Gas Vehicle Partnership Fund (40). Total project costs for this proposed study are \$250,000 as follows:


FUNDING ORGANIZATION	FUNDING AMOUNT	PERCENT
American Gas Association	\$50,000	20%
CNGVP	\$50,000	20%
Clean Energy	\$50,000	20%
Gas Company	\$50,000	20%
SCAQMD (<i>requested</i>)	\$50,000	20%
Total	\$250,000	100%

Sufficient funds are available from the Clean Fuels Fund, established as a special revenue fund resulting from the state-mandated Cleans 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.

In July 2014, the Board approved a two-year budget for the CNGVP, which includes up to \$100,000 for Professional and Specialized Services. There are sufficient funds in the Natural Gas Partnership Fund (40) to cover the cost of the proposed study.

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 4

PROPOSAL: Recognize Revenue and Execute Contract for Development, Integration and Demonstration of Ultra-Low-Emission Natural Gas Engine for On-Road Heavy-Duty Vehicles 

SYNOPSIS: The Board previously awarded contracts to Cummins Westport Inc. (CWI) and Cummins Inc. to develop next generation ultra-low-emission heavy-duty natural gas engines that are 90% cleaner than the current NOx emission standard. As a follow-on to this development project and given market demand for natural gas engines in the 11- to 13-liter range, the CEC, Southern California Gas Company and Clean Energy have expressed interest in cofunding the advancement of the current 11.9-liter natural gas engine to achieve ultra-low NOx emissions. These actions are to recognize revenues up to \$2.5 million and execute a contract with CWI for development, integration and demonstration of an 11.9-liter ultra-low-emission natural gas engine in an amount not to exceed \$4.25 million from the Clean Fuels Fund (31).

COMMITTEE: Technology, October 16, 2015; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize, upon receipt, up to \$500,000 from Clean Energy and up to \$1 million each from the CEC and Southern California Gas Company into the Clean Fuels Fund (31) for the development, integration and demonstration of ultra-low-emission natural gas engines for on-road heavy-duty vehicles and appropriate these monies into the Clean Fuels Fund; and
2. Authorize the Chairman to execute a contract with CWI for the development, integration and demonstration of an 11.9-liter ultra-low-emission natural gas engine for on-road heavy-duty vehicles in an amount not to exceed \$4.25 million from the Clean Fuels Fund (31), of which SCAQMD's share is not to exceed \$1,750,000.

Barry R. Wallerstein, D.Env.
Executive Officer

Background

On-road heavy-duty diesel vehicles are currently one of the largest sources of NO_x emissions, which are precursors to ozone formation, in the South Coast Air Basin. This source category is projected to be one of the largest contributors to NO_x emissions even as the legacy fleet of older and higher polluting vehicles are retired and replaced with vehicles meeting the 2010 heavy-duty exhaust emissions standards. However, research is being conducted for the next generation natural gas engines to achieve a 90% cleaner NO_x emissions level compared to the current emission standard. The SCAQMD is sponsoring projects with Cummins Westport Inc. (CWI) and Cummins Inc. to develop and demonstrate 8.9- and 15-liter natural gas engines. In fact, CWI recently received CARB certification for its 8.9-liter engine at 0.02 g/bhp-hr NO_x.

As a follow-on to the engine development and demonstration projects and given market demand for natural gas engines in the 11- to 13-liter range, the CEC, Southern California Gas Company (SoCalGas) and Clean Energy have expressed interest in cofunding advancement of the current 11.9-liter natural gas engine to achieve ultra-low-NO_x emissions.

Proposal

This action is to recognize, upon receipt, up to \$500,000 from Clean Energy and up to \$1 million each from the CEC and Southern California Gas Company for a total of up to \$2.5 million and appropriate these monies into the Clean Fuels Fund (31). This action is to also execute a contract with CWI for the development, integration and demonstration of an 11.9-liter ultra-low-emission natural gas engines for use in on-road heavy-duty vehicle applications in an amount not to exceed \$4,250,000, of which SCAQMD's share is not to exceed \$1,750,000.

The project is intended to advance engine and aftertreatment technologies in the current 11.9-liter natural gas engine to achieve NO_x emission levels that are at least 90% lower than 2010 engine emission certification standards. CWI will be required to conduct engine and aftertreatment development activities to achieve the ultra-low-emissions target and perform substantial validation and durability testing to confirm the robustness of their design. Once developed, the engine will be tested using both the Federal Test Procedure for emissions certification and non-certification test cycles representative of the real-world use in different vocations that are prevalent in the air basin. The use of vocational specific test cycles will provide additional insight towards the engine's real-life emission reduction potential. The program will ultimately conclude with the engine being integrated into on-road heavy-duty chassis and placed in commercial service to fully validate its performance and viability.

Benefits to SCAQMD

The Board previously awarded a contract to CWI to develop, integrate and demonstrate 8.9-liter ultra-low-emission heavy-duty natural gas engines that are capable of achieving 0.02g/bhp-hr or lower NO_x emissions. CWI recently received CARB certification for

the 8.9-liter natural gas engine at 0.02 g/bhp-hr NOx emissions. Because of market demand for natural gas engines in the 11- to 13-liter range, the proposed project is a follow-on phase of natural gas engine development project to transfer the technology and use lessons learned from the successful development of the 8.9-liter engine to advance the current 11.9-liter natural gas engine to achieve ultra-low NOx emissions. The development and use of ultra-low-emission engines in on-road heavy-duty truck applications will assist the SCAQMD in attaining federal ambient air quality standards. This proposed project is included in the *Technology Advancement Office Clean Fuels Program 2015 Plan Update* under “Engine Systems.”

Sole Source Justification

Section VII.B.2 of the Procurement Policy and Procedure identifies provisions by which sole source awards may be justified. This request for a sole source award is made under provision B.2.d: Other circumstances exist which in the determination of the Executive Officer requires such waiver in the best interest of the SCAQMD. This request for sole source award is made under provision B.2.d(1): Projects involving cost sharing by multiple sponsors, and provision B.2.d(3): Projects involving commitment to multiple project phases. The proposed project will be cost-shared by CEC, SoCalGas, Clean Energy and CWI.

Resource Impacts

The proposed project budget is approximately \$5.25 million, with funding anticipated from the CEC, SoCalGas and Clean Energy to be recognized, upon receipt, into the Clean Fuels Fund (31). Of this \$5.25 million, SCAQMD’s cost-share shall not exceed \$1.75 million from the Clean Fuels Fund (31). The total cost-share for the proposed project is summarized below:

Proposed Project Cost-Share

Funding Source	Funding Amount	% of Project
Clean Energy	\$ 500,000	10%
CEC	\$1,000,000	19%
SoCalGas	\$1,000,000	19%
CWI (in-kind)	\$1,000,000	19%
SCAQMD (<i>requested</i>)	\$1,750,000	33%
Total	\$5,250,000	100%

Sufficient funds are available from the Clean Fuels Fund (31), established as a special revenue fund resulting 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: November 6, 2015

AGENDA NO. 5

PROPOSAL: Execute Contract to Develop Online Application Database for Carl Moyer Program

SYNOPSIS: The Carl Moyer Program receives several hundred applications for different types of vehicles and equipment during its annual open solicitation period. The projects must be evaluated for eligibility, cost-effectiveness, amount of funding, environmental justice ranking and other applicable factors before they can be considered for award. Electronic acceptance of the applications will expedite the evaluation and reporting process as well as enhance uploading information into the state's Carl Moyer Program database. This action is to execute a contract with Trinity Technology Group to develop an online application database for the Carl Moyer Program in an amount not to exceed \$262,960 from the administrative portion of the Carl Moyer Program AB 923 Fund (80).

COMMITTEE: Technology, October 16, 2015; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with Trinity Technology Group to develop an online application database for the Carl Moyer Program in an amount not to exceed \$262,960 from the administrative portion of the Carl Moyer Program AB 923 Fund (80).

Barry R. Wallerstein, D.Env.
Executive Officer

MMM:FM:CD

Background

This is the 17th year of the Carl Moyer Program with long-term sources of funding generated from SB 1107 and AB 923. The Program receives several hundred applications for different types of vehicles and equipment during its annual open solicitation period. The projects must be evaluated for eligibility, cost-effectiveness, amount of funding, environmental justice ranking and other applicable factors before they can be considered for award. Accepting applications electronically will provide better customer service, expedite the evaluation and reporting process and enhance uploading information into the state's Carl Moyer Program database.

Proposal

Trinity Technology Group has created an online application database for the Bay Area AQMD's Carl Moyer Program and has provided technical support for the past six years. For the online application database, Trinity Technology Group has created a source code, which can be modified to meet the SCAQMD's needs in accepting online applications, generating internal reports and loading information into CARB's database.

The source code for the database is owned by Bay Area AQMD and is being provided to SCAQMD at no cost. This contract with Trinity Technology Group specifies that SCAQMD may modify the source code to create its own database but may not sell it in the future. SCAQMD's requirements for an online application database have been discussed with the Trinity Technology Group and SCAQMD's Technology Advancement and Information Management staff. Trinity Technology Group will design, develop and conduct testing of the online application database for the Carl Moyer Program and provide one year of ongoing maintenance service and technical support.

This action is to execute a contract with Trinity Technology Group to develop an online application database for the Carl Moyer Program in an amount not to exceed \$262,960, from the administrative portion of the Carl Moyer Program AB 923 Fund (80).

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for sole source award is made under Section B.2.c(1): the unique experience and capabilities of the proposed contractor or contractor team. Trinity Technology Group has developed a similar online application system for the Carl Moyer Program for the Bay Area AQMD. Thus, Trinity Technology Group's familiarity with the diversity of the equipment categories and the application requirements, combined with its ability to modify the source code that has already been created for the Bay Area AQMD, uniquely qualifies them to complete the project expeditiously and at a lower cost.

Benefits to SCAQMD

The Carl Moyer Program is an important and a successful program that provides incentive funding to owners of diesel vehicles and equipment to reduce emissions beyond regulatory requirements by replacing, repowering or retrofitting their older engines. Online acceptance of the Carl Moyer Program applications will expedite the evaluation and reporting process and enhance information loading into the state's database.

Resource Impacts

Total funding for this project shall not exceed \$262,960 from the administrative portion of the Carl Moyer Program AB 923 Fund (80).

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 6

PROPOSAL: Execute Contract to Conduct 2016 Leaf Blower Exchange Program

SYNOPSIS: At its July 10, 2015 meeting, the Board approved release of a Program Announcement to solicit competitive bids from manufacturers of low- or zero-emission/low-noise leaf blowers. This action is to award a contract to Pacific STIHL to conduct the 2016 Leaf Blower Exchange Program in an amount not to exceed \$481,955 from the Rule 2202 AQIP Special Revenue Fund (27).

COMMITTEE: Mobile Source, October 16, 2015; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a contract with Pacific STIHL to exchange up to 2,000 leaf blowers in an amount not to exceed \$481,955 from the Rule 2202 AQIP Special Revenue Fund (27).

Barry R. Wallerstein, D. Env.
Executive Officer

MMM:FM:VY

Background

Rule 2202 Air Quality Investment Program (AQIP) allows affected employers to participate by electing to invest in an SCAQMD-administered restricted fund. Effective July 1, 2015, investment can be either \$45.63 annually per employee reporting to the worksite during the 6:00 a.m. to 10:00 a.m. peak window or \$126.75 triennially per employee. The restricted monies are to be used by the SCAQMD to fund proposals that achieve mobile source emission reductions that would otherwise have been achieved by implementing a rideshare program.

Upon registering under this option and submitting the designated investment amount, an employer is considered to be in compliance with the Rule and there is no need for the employer to take further action to reduce mobile source emissions. The collected monies are used to fund alternative mobile source emission reduction strategies that reduce mobile source emissions at a more cost-effective rate which could potentially result in greater overall emission reductions.

At its July 10, 2015 meeting, the Board approved the release of Program Announcement #PA2016-01 to solicit bids from potential manufacturers/suppliers of low- or zero-emission/low-noise leaf blowers to provide units at a discounted price to be used for the SCAQMD's 2016 Leaf Blower Exchange Program.

Bid Evaluation

While all manufacturers with certified leaf blowers were notified, only one bid from Pacific STIHL was received by the application deadline. Pacific STIHL offered two types of zero-emission/low-noise, battery-operated BGA85 and BGA100 model blowers, in addition to the BR500 model blower that meets the low-exhaust emission standards ("Blue Sky Series") required by the Program Announcement.

Proposal

The primary goal of this project is to replace existing two-stroke backpack blowers currently used by commercial landscapers/gardeners within the South Coast Air Basin with new zero-emission or four-stroke blowers which have significantly reduced emission and noise levels. The current CARB emission standard is 72 grams of HC + NO_x per kilowatt hour. The BR500 model has been certified by CARB at 16 grams of HC+NO_x per kilowatt hour. The 16 gram per kilowatt hour exceeds CARB's Blue Sky criteria of 36 grams for product in its displacement category. The cost effectiveness of this model is \$0.53 per pound. The cost effectiveness of the zero-emission BGA85 and BGA100 models are \$0.32 and \$0.67 per pound, respectively. Because of its low-emission levels and low-noise level rating, Model BR500 was used in all prior Leaf Blower Exchange Programs. Staff proposes using the STIHL BR500 model in addition to the two zero-emission leaf blowers in the 2016 Leaf Blower Exchange Program. The BGA85 is a hand-carried battery electric model, and the BGA100 is a backpack battery electric model. Table 1, provides the specifications and pricing information of the proposed models.

The past SCAQMD's leaf blower exchanges for commercial gardeners/landscapers have been conducted at STIHL dealerships. STIHL will notify all registered current equipment users of the program and conduct general outreach. Typically, thirteen exchange events are set up across the Basin, and for the convenience of the participants, the exchange events take place during consecutive weekdays. Due to the great demand, and to prevent long lines, pre-registration will be required and participants given time slots on the half-hour.

At the event site, the old leaf blowers will be tested for operation and then drained of all fluids in a responsible manner and collected for scrapping. The vendor will haul the traded-in blowers to a scrapping yard where they will be crushed and recycled. The vendor will also provide training for the proper use of the equipment at each of the exchange sites. This format has been used for all prior programs.

Since this is the first year that multiple technologies are being offered, staff recommends 750 units of model BR500 (gasoline) and 750 units of the same-priced electric unit, BGA85. Staff is also recommending up to 500 units of the more expensive BGA100, and allow the Executive Officer to adjust all of the amounts subject to the demand. This action is to execute a contract with Pacific STIHL to exchange up to 2,000 leaf blowers in an amount not to exceed \$481,955 from the Rule 2202 AQIP Special Revenue Fund (27).

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the PA 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 PA 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>).

Benefits to SCAQMD

This program will exchange up to 2,000 old 2-stroke leaf blowers for new 4-stroke gasoline and zero-emission blowers. The STIHL BR500 leaf blower has been certified by CARB at 16 grams of HC+NO_x per kilowatt hour. This is nearly 78 percent lower than the current emission standard of 72 grams established by CARB for new leaf blowers of that size sold in California. The STIHL BGA85 and BGA100 models are zero-emission battery-operated blowers. Based on the U.S. EPA Model¹, this exchange program will result in emission reductions of 157,647 pounds per year of HC+NO_x. The cost effectiveness of BR500 model will be \$0.53 per pound and BGA85 and BGA100 models will be \$0.32 and \$0.67 per pound, respectively.

Resource Impact




Total expenditures for the proposed project shall not exceed \$481,955 from the Rule 2202 AQIP Special Revenue Fund (27). Table 1 provides a breakdown of pricing per leaf blower.

Attachment

Table 1 – Leaf Blower Specifications and Pricing

¹ EPA-420-R-10-016; NR-005d; 2010

Table 1: Leaf Blower Specifications and Pricing

Make/Model	STIHL BR 500	STIHL BGA85	STIHL BGA100
			
HC + NOx Certification Level (gm/kW-hr)	16	N/A	N/A
CO Certification Level (gm/kW-hr)	307	N/A	N/A
Noise Rating (dB(A))	65	64	56
Displacement (CC)	64.8	N/A	N/A
Engine Power (bhp)	2.4	N/A	N/A
Air Velocity (MPH)	181	102	128-141
Air Volume (w/ Tubes) CFM	477	385	447-494
Air Volume (w/o Tubes) CFM	812	N/A	N/A
Weight (lbs.)	22.3	7	5.5
Fuel Capacity (fl. Oz.)	47.3	N/A	N/A
Warranty (Years)	2	2	2
# of So Cal Service Dealers	120	120	120
MSRP	\$479.95	\$479.93	\$1,419.88
Discounted Price	\$387.97	\$387.97	\$1,000
Discount TO SCAQMD	\$91.98	\$91.96	\$419.88
Customer pays (Plus Tax)	\$200	\$200	\$600
SCAQMD Pays (per leaf blower)	\$187.97	\$187.97	\$400
Vendor Event & Advertising Support	\$64,500	(included)	(included)
Collection & Disposal of Old Blowers	Yes	Yes	Yes
Battery Run Time (per charge)	N/A	Up to 23 minutes	Up to 300 minutes

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 7

PROPOSAL: Adopt Resolution Accepting Terms and Conditions for Proposition 1B – Goods Movement Program Grants

SYNOPSIS: In August 2015, SCAQMD submitted applications to CARB for the Fiscal Year 2015-16 Proposition 1B – Goods Movement Program. This is the last round of funding for this Program with approximately \$267 million remaining for eligible projects and local agency administrative costs. Consistent with CARB’s funding targets for each trade corridor and upon execution of grant agreements, SCAQMD expects to receive a total of \$137.9 million. Eligible projects will include heavy-duty diesel trucks, locomotives, ships at berth, cargo handling equipment and transport refrigeration units. CARB requires a Board resolution to enter into grant agreements for the allocated funds. This action is to adopt a resolution accepting terms and conditions for the Proposition 1B – Goods Movement Program grants and authorize the Executive Officer to enter into grant agreements with CARB.

COMMITTEE: Technology, October 16, 2015; Recommended for Approval

RECOMMENDED ACTION:

Adopt the attached resolution accepting terms and conditions for the Proposition 1B – Goods Movement Program, and authorize the Executive Officer to enter into grant agreements with CARB.

Barry R. Wallerstein, D.Env.
Executive Officer

MMM:FM:VW

Background

Proposition 1B authorizes \$1 billion to CARB for the Goods Movement Emission Reduction Program. To date, CARB has awarded \$740 million to local agencies for various goods movement projects. SCAQMD has received about \$400 million of these funds for projects involving heavy-duty diesel trucks, locomotives and ships at berth. The majority of these projects are completed, providing significant emission reduction

benefits to the region. In July 2015, CARB released a Notice of Funding Availability for the Fiscal Year 2015-16 Proposition 1B-Goods Movement Program. This is the last round of funding with approximately \$267 million remaining for eligible projects and administrative costs.

Proposal

Consistent with CARB’s funding targets for each trade corridor and upon execution of grant agreements, SCAQMD expects to receive a total of \$137.9 million. Eligible projects will include heavy-duty diesel trucks, locomotives, ships at berth, cargo handling equipment and transport refrigeration units. CARB requires a resolution from the Board accepting terms and conditions for the FY 2015-16 Proposition 1B – Goods Movement Program and designating authority to enter into grant agreements. This action is to adopt the attached resolution accepting terms and conditions for the Proposition 1B – Goods Movement Program and authorize the Executive Officer to enter into grant agreements with CARB.

Benefits to SCAQMD

The successful implementation of the projects approved under the Proposition 1B – Goods Movement Program will reduce NOx and PM emissions in a cost-effective and expeditious manner to meet the goals of the AQMP. The vehicles and equipment to be funded by the Proposition 1B Program will operate for the life of the contracts awarded and beyond in the South Coast region, thus providing long-term emission reductions.

Resource Impacts

SCAQMD expects to receive the final allocation of the Proposition 1B – Goods Movement Program funds from CARB in the amount of approximately \$137.9 million. Staff will seek the Board’s approval to recognize the funds and approve recommended projects.

Attachment

A Resolution of the South Coast Air Quality Management District Board Recognizing and Approving Authorities for the Proposition 1B – Goods Movement Emission Reduction Program Projects

RESOLUTION NO.

A Resolution of the South Coast Air Quality Management District Board Recognizing and Approving Authorities for the Proposition 1B – Goods Movement Emission Reduction Program Projects

WHEREAS, under Health & Safety Code §40400 et seq., the South Coast Air Quality Management District (SCAQMD) is the local agency with the primary responsibility for the development, implementation, monitoring and enforcement of air pollution control strategies, clean fuels programs and motor vehicle use reduction measures; and

WHEREAS, the SCAQMD is authorized by Health & Safety Code §§40402, 40440, and 40448.5 to implement programs to reduce transportation emissions, including programs to encourage the use of alternative fuels and low-emission vehicles; to develop and implement other strategies and measures to reduce air contaminants and achieve the state and federal air quality standards; and

WHEREAS, the Board has adopted several programs to reduce emissions from on-road and off-road vehicles, as well as emissions from other equipment, including the School Bus Incentive Program and the Carl Moyer Program; and

WHEREAS, the SCAQMD is designated as an extreme non-attainment area for ozone and as such is required to utilize all feasible means to meet national ambient air quality standards.

THEREFORE, BE IT RESOLVED that the Board of the SCAQMD, State of California, in regular session assembled on November 6, 2015, does hereby authorize the Executive Officer to enter into a grant agreement with CARB, accept funds, provide any matching funds under the fiduciary control of the SCAQMD, and identify all sources of non-private matching funds with conditions and constraints associated with those funds committed to projects for the Goods Movement Emission Reduction Program (Prop 1B Program).

BE IT FURTHER RESOLVED that the Executive Officer may also sign, or delegate signatory authority to the Deputy Executive Officer or an Assistant Deputy Executive Officer of the Technology Advance Office to sign, Grant Disbursement Requests and the local agency project application for submission to CARB.

BE IT FURTHER RESOLVED that a competitively ranked projects list indicating the equipment projects selected for funding and a backup list of eligible equipment projects, or list of eligible projects for undersubscribed truck solicitations, for the Prop 1B Program shall be approved by the Governing Board; and

BE IT FURTHER RESOLVED that the Executive Officer or his designee is authorized to execute contracts between the SCAQMD and equipment owners.

Date

Clerk of the Board

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 8

PROPOSAL: Recognize Revenue and Appropriate Funds for U.S. EPA PAMS, U.S. EPA PM2.5 and U.S. Government Programs, Amend Contracts for Technical Support for U.S. EPA PAMS, and Issue RFQs and Purchase Orders for Air Monitoring Equipment and Upper Air Meteorology Equipment Warranty Services

SYNOPSIS: SCAQMD expects to be awarded Section 105 funds by the U.S. EPA in the estimated amount of \$1,217,270 for the 24th Year of the U.S. EPA PAMS Program, Section 103 funds by the California Air Pollution Control Officers Association in the estimated amount of \$25,000 for the U.S. EPA PM2.5 Program, and funds by the U.S. Government in the estimated amount of \$20,000 for the Enhanced Particulate Monitoring Program. These actions are to: 1) recognize revenue and appropriate funds into the FY 2015-16 Budget for the 24th Year PAMS, PM2.5 and Enhanced Particulate Monitoring Programs; 2) amend contracts for technical support for the PAMS Program and; 3) issue RFQs and purchase orders for air monitoring equipment and upper air meteorology equipment warranty services.

COMMITTEE: Administrative, October 9, 2015; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize revenue and appropriate funds, upon receipt, in the amount of \$825,091 (\$392,179 was previously included in Salary and Employee Benefits within the FY 2015-16 Budget), as part of the estimated U.S. EPA Section 105 24th Year PAMS award of \$1,217,270, into the Services and Supplies and Capital Outlays Major Objects in the FY 2015-16 Budget, divided between Science & Technology Advancement and Planning, Rule Development & Area Sources, as set forth in the attached, and adjust appropriations as required once the final award amount is determined.
2. Recognize revenue and appropriate funds, upon receipt, in the amount of \$25,000, as part of the estimated additional U.S. EPA Section 103 PM2.5 funding awarded by the California Air Pollution Control Officers Association (CAPCOA), as needed, into the Services and Supplies and Capital Outlays Major Objects in Science & Technology Advancement's FY 2015-16 Budget

(Org 47) in Lab Supplies (\$6,000), Small Tools (\$5,000) and Capital Outlays (\$14,000).

3. Recognize revenue and appropriate funds, upon receipt, in the amount of \$19,000 (\$1,000 was previously included in Salary and Employee Benefits within the FY 2015-16 Budget), as part of the estimated additional U.S. Government funding for the Enhanced Particulate Monitoring Program, into the Services & Supplies Major Object in Science & Technology's FY 2015-16 Budget (Org 47).
4. Authorize the Executive Officer to amend the following contracts as budgeted in the 24th Year PAMS award:
 - a) a contract with Sonoma Technology, Inc. by adding additional funds not to exceed \$100,000 for upper air meteorological station technical support; and
 - b) a contract with Technical & Business Systems, Inc. (T&B Systems) by adding additional funds not to exceed \$20,000 to upgrade the meteorological systems and data communications at the air monitoring stations.
5. Issue RFQs, in accordance with SCAQMD Procurement Policy and Procedure, for equipment listed in the table and described in this letter.
6. Authorize the Procurement Manager, in accordance with SCAQMD Procurement Policy and Procedure, to issue:
 - a) Purchase orders, based on the results of RFQs, for air monitoring equipment in an amount not to exceed \$226,100 listed in the table and described in this letter; and
 - b) Sole source purchase order with Atmospheric Systems, Inc. in an amount not to exceed \$30,000 for upper air meteorology warranty services as described in this letter.

Barry R. Wallerstein, D.Env.
Executive Officer

MMM:LT:JCL:cv

Background

PAMS Program

In February 1993, the U.S. EPA promulgated the PAMS regulations for areas classified as serious, severe or extreme nonattainment. These regulations require SCAQMD to conduct monitoring for ozone precursors with enhanced monitoring equipment at multiple sites. The PAMS Program also funds the meteorological upper air profilers sited at LAX and Ontario airports, the upper air site installed at Moreno Valley in Riverside County and the upper air site in Orange County. Since the onset of the PAMS

Program, the U.S. EPA has annually allocated Section 105 supplemental grant funds in support of program requirements.

PM2.5 Program

Since 1998, U.S. EPA has provided funds under a Section 103 Grant for a comprehensive PM2.5 Air Monitoring Program. To date, there are 20 ambient SCAQMD monitoring stations operating 23 Federal Reference Method (FRM) PM2.5 monitors under U.S. EPA funding and 17 Federal Equivalent Method (FEM) PM2.5 continuous monitors. In addition, U.S. EPA has supported the expansion of the network to collect continuous PM2.5 mass and chemical speciation at several sites within the South Coast Air Basin. This augmentation substantially adds to the fine particulate data which will help in the characterization of PM2.5 sources, current air quality conditions and health impacts.

U.S. Government Enhanced Particulate Monitoring Program

SCAQMD has been providing enhanced particulate monitoring support as part of a national monitoring program since 2003 and will continue for the foreseeable future.

Proposal

24th Year PAMS Program Funds

The U.S. EPA estimates that the 24th Year PAMS Program will be funded at \$1,217,270. This action is to recognize revenue, upon receipt, and appropriate a portion of the estimated funds in the amount of \$825,091 (\$392,179 was previously included within the FY 2015-16 Salary and Employee Benefits Budget) into Services and Supplies and Capital Outlays Major Objects in the FY 2015-16 Budget divided between Science & Technology Advancement and Planning, Rule Development & Area Sources, as set forth in the attachment. The U.S. EPA concurs with staff's proposed allocation.

PM2.5 Program

SCAQMD estimates that the U.S. EPA PM2.5 Program for FY 2015-16 will receive additional Section 103 Grant funding in the amount of \$25,000 awarded by CAPCOA. This action is to recognize revenue and appropriate funds, upon receipt, in the estimated amount of \$25,000 into Services and Supplies and Capital Outlays Major Objects in Science & Technology Advancement's FY 2015-16 Budget (Org 47) as follows: Lab Supplies (\$6,000), Small Tools (\$5,000) and Capital Outlays (\$14,000). CAPCOA and U.S. EPA concur with staff's proposed allocation.

Enhanced Particulate Monitoring Program

SCAQMD estimates that the ongoing Enhanced Particulate Monitoring Program for FY 2015-16 will receive additional funding in the amount of \$20,000. The purpose of the augmentation is to provide additional support and capacity to the U.S. Government regional office for conducting training and inter-agency communications. Revenue in the amount of \$2,836,157 for this grant has already been included in the FY 2015-16

Budget. This action is to recognize the additional revenue and appropriate, upon receipt, \$19,000 (\$1,000 was already included in Salary and Employee Benefits within the FY 2015-16 Budget) into the Services & Supplies Major Object in Science & Technology Advancement's (Org 47) FY 2015-16 Budget.

Amend Existing Contracts for Technical Support

Technical Support – Upper Air

As part of the U.S. EPA PAMS Program, comprehensive measurements of meteorological parameters have been collected in the South Coast Air Basin since 1994, using a network of radar wind and temperature profilers, acoustic wind profilers and tower-mounted meteorological sensors. Data from the upper air measurement stations is routinely used for air quality forecasting and event analyses and has been invaluable for regional modeling efforts. SCAQMD utilizes consultants to provide operational support, due to the limited availability of staff resources to maintain this network. On January 10, 2014, the Board awarded a contract to Sonoma Technology, Inc. for the initial year of the current contract effort, with future year annual renewals of up to \$100,000, based upon availability of funds and satisfactory contractor performance. Contractor performance has been satisfactory and funds will be available. This action is to authorize the Executive Officer to exercise the renewal option with Sonoma Technology, Inc. for the third year of the current contract to amend the contract by adding additional funds not to exceed \$100,000 for SCAQMD PAMS Upper Air Meteorological Monitoring Network, as budgeted in the 24th Year PAMS award.

Meteorology Network Upgrades

T&B Systems is currently under contract to provide technical support to upgrade the meteorological systems and data communications at various air monitoring stations. Upgrades at approximately 22 stations have been completed. Amending the contract will continue the work needed to upgrade the network and ensure consistency and quality of this highly specialized work across the SCAQMD network. This action is to authorize the Executive Officer to amend the contract with T&B Systems by adding additional funds not to exceed \$20,000 for upgrades to the SCAQMD meteorology network as budgeted in the 24th Year PAMS award.

Proposed Purchase Orders through an RFQ Process

Hydrogen Generator

The U.S. EPA PAMS Program requires the measurement of VOCs using instrumentation which uses hydrogen to perform analyses. Hydrogen generators provide a reliable and cost-effective source of this gas. A current hydrogen generator in service has failed, cannot be repaired, and thus is in need of replacement. The approximate cost for one (1) hydrogen generator is \$7,100. Quotes for this RFQ will be solicited through informal bids, in accordance with SCAQMD Procurement Policy and Procedure.

Gas Dilution Systems

Gas calibration dilution systems are used to precisely blend specific concentrations of calibration gases at air monitoring stations collecting data to support the U.S. EPA PAMS Program. Some of the current dilution systems have been in service beyond their expected life span, have difficulty achieving required quality control criteria, lack many needed remote diagnostic capabilities, and are in need of replacement. The cost for six (6) gas calibration dilution systems is approximately \$96,000. Quotes for this RFQ will be solicited through competitive formal bids, in accordance with SCAQMD Procurement Policy and Procedure.

Sample Storage System

As part of the U.S. EPA PAMS Program, carbonyl compound measurement requirements, samples from the field must be stored under specific temperature criteria at sub-ambient temperatures. These refrigerated storage systems must have sufficient capacity to store multiple samples until analysis occur to maintain sample integrity and increase long term reliability. The cost for one (1) sample storage system is approximately \$10,000. Quotes for this RFQ will be solicited through informal bids, in accordance with SCAQMD Procurement Policy and Procedure.

NO2 Monitors

The U.S. EPA PAMS Program requires the analysis of NO₂ in the air. Measurements are conducted in near real time and preliminary data from monitors are incorporated into the SCAQMD air quality map. Some of the current monitors have been in service beyond their expected life span, have difficulty achieving required quality control criteria, and are in need of replacement. The cost for two (2) NO₂ monitors is approximately \$32,000. Quotes for this RFQ will be solicited through competitive formal bids, in accordance with SCAQMD Procurement Policy and Procedure.

Gas Chromatograph Preconcentrator

The U.S. EPA PAMS Program requires the analysis of VOCs in the air. Samples are collected in canisters at select stations and analyzed using gas chromatographs (GCs) equipped with preconcentrators. These analytic systems measure up to 57 VOCs while meeting quality control criteria of the PAMS Program. Current GC preconcentrators are no longer supported or compatible with current Windows operating systems and are in need of replacement. The approximate cost for one (1) GC preconcentrator is \$67,000. Quotes for this RFQ will be solicited through competitive formal bids, in accordance with SCAQMD Procurement Policy and Procedure.

PM2.5 FRM Monitor

Since 1998, U.S. EPA has provided funds under a Section 103 Grant for a comprehensive PM_{2.5} Air Monitoring Program. To date, there are 20 ambient SCAQMD monitoring stations operating 23 PM_{2.5} samplers under U.S. EPA funding. There are samplers that have been in operation since the inception of the PM_{2.5} air

monitoring program and are in need of replacement. The approximate cost for one (1) PM2.5 FRM Monitor is \$14,000. Quotes for this RFQ will be solicited through informal bids, in accordance with SCAQMD Procurement Policy and Procedure.

Proposed Purchase through Sole Source Purchase Order

Extended Warranty Services for Upper Air Meteorology Equipment

The U.S. EPA PAMS Program requires measurements of upper air meteorology including wind speed and direction. This is currently conducted by four sodar (SONIC Detection And Ranging) profiling systems in addition to other instrumentation. These systems have been in service beyond their designed usage, are unique and are costly to repair. The approximate cost for the warranty service from Atmospheric Systems, Inc. is \$30,000.

Outreach

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

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

Sole Source Justification

Section VIII, B.3 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified for federally funded procurement. The requests for sole source purchase of the extended warranty is made under Section B.3.a of the Procurement Policy and Procedure which states: For contracts funded in whole or in part with federal funds, written justification for sole source award must be provided documenting that awarding a contract is infeasible under small purchase procedures, sealed bids or competitive proposals and that one of the following circumstances applies: (a) The item is available only from a single source; (b) The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation; (c) The awarding federal agency authorizes noncompetitive proposals; or (d) After solicitation of a number of sources, competition is determined inadequate. Atmospheric Systems, Inc. is the only company capable of providing repair parts and services for the equipment they manufacture. U.S. EPA staff concur with the sole source purchases as also meeting U.S. EPA requirements for category (a).

Resource Impacts

U.S. EPA Section 105 Grant funding will support the operation of the 24th Year PAMS Program, including the purchase of equipment, supplies and services, and Salaries and Employee Benefits, to meet necessary objectives of the Program. The U.S. EPA Section 103 Grant funding awarded by CAPCOA will support the purchase of an FRM monitor, lab supplies and small tools in support of the PM 2.5 program. Finally, the augmented funds provided by the U.S. Government will support training and inter-agency communication activities. Total revenue to be received is estimated at \$1,262,270, comprised of \$1,217,270 for the U.S. EPA Section 105 24th Year PAMS Program, \$25,000 from U.S. EPA Section 103 PM2.5 funding awarded by CAPCOA, and \$20,000 in U.S. Government funding for the Enhanced Particulate Monitoring Program. The following table outlines purchases proposed through RFQ processes, and the attachment to this Board letter details where the \$1,217,270 for the U.S. EPA Section 105 funds shall be appropriated in the FY 2015-16 Budget.

Proposed Purchase Orders through RFQ Process

Description	Qty	Funding Source	Estimated Cost
Hydrogen Generator	1	PAMS FY 15-16	\$7,100
Gas Dilution Systems	6	PAMS FY 15-16	\$96,000
Sample Storage System	1	PAMS FY 15-16	\$10,000
NO2 Monitor	2	PAMS FY 15-16	\$32,000
Gas Chromatograph Preconcentrator	1	PAMS FY 15-16	\$67,000
PM2.5 FRM Monitor	1	PM2.5 FY 15-16	\$14,000
Total Proposed Purchase Orders through RFQ Process			Not to Exceed \$226,100

Attachment

Proposed PAMS 24th Year Expenditures for FY 2015-16

ATTACHMENT

PROPOSED PAMS 24th YEAR EXPENDITURES FOR FY 2015-16

	Budget Code	Program Code	Quantity	Estimated Expenditure
A. Fixed Assets				\$212,100
Hydrogen Generator	77000	47530	1	\$7,100
Gas Dilution Systems	77000	47530	6	\$96,000
Sample Storage System	77000	47530	1	\$10,000
NO2 Monitor	77000	47530	2	\$32,000
Gas Preconcentrator	77000	47530	1	\$67,000
B. Laboratory Supplies				\$75,000
Misc. Supplies	68050	47530		\$75,000
C. Maintenance of Equipment				\$85,900
Misc. Parts	67600	47530		\$50,900
Misc. Parts	67600	26530		\$35,000
D. Office Expense				\$15,800
Office Supplies	68100	47530		\$5,800
Office Supplies	68100	26530		\$10,000
E. Building Maintenance Operation				\$10,000
Building Maintenance	67650	47530		\$5,000
Building Maintenance	67650	26530		\$5,000
F. Contracts				\$320,000
Upper Air Warranties (Atmos. Sys. Corp.)	67450	26530		\$30,000
Technical Support - Upper Air (Sonoma)	67450	26530		\$100,000
Meteorology Network Upgrades (T&B Systems)	67450	47530		\$20,000
Data Management and Analysis	67450	47530		\$50,000
Air Monitoring Station Renovations	67450	47530		\$70,000
Photochemical Modeling	67450	26530		\$50,000
G. Small Tools				\$33,600
Miscellaneous Tools	68300	47530		\$33,000
Miscellaneous Tools	68300	26530		\$600
H. Communications				\$13,000
Communications Expenses	67900	26530		\$13,000
I. Travel				\$9,000
Travel Expenses	67800	47530		\$7,000
Travel Expenses	67800	26530		\$2,000

	Budget Code	Program Code	Quantity	Estimated Expenditure
J. Rents and Leases of Structures				\$27,000
Upper Air Leases	67350	26530		\$25,000
Station Leases	67350	47530		\$2,000
K. Training				\$2,000
Training Expenses	69500	26530		\$2,000
L. Conference Registration				\$1,000
Conference Registration	69500	26530		\$1,000
M. Demurrage				\$20,000
Demurrage Expenses	67550	47530		\$20,000
N. Postage				\$150
Misc. Postage	68060	26530		\$150
O. Taxes				\$141
Misc. Taxes	69600	47530		\$141
P. Rents and Leases of Equipment				\$400
Misc. Equipment	67300	26530		\$200
Misc. Equipment	67300	47530		\$200
Subtotal (FY 2015-16 Appropriations)				\$825,091
Q. Salaries and Benefits*				\$392,179
Salaries and Benefits	51000	44530		
Salaries and Benefits	51000	26530		
Total (EPA Estimated 24th Year 105 Grant)				\$1,217,270

*previously included in the FY 2015-16 Budget

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 9

PROPOSAL: Reissue RFP for Refurbishment of Pace Air Handlers at SCAQMD Headquarters

SYNOPSIS: The current Pace air handlers are over 24 years old and have been operating 365 days a year, 20 or more hours a day. With a life expectancy of 15 to 20 years, maintenance costs have risen and dependability of the handlers is declining rapidly. Staff is requesting to refurbish the air handlers, which provide filtered conditioned air to SCAQMD headquarters, and will also increase the efficiency and provide necessary back up. This action is to reissue an RFP to solicit proposals from qualified contractors to refurbish various air handlers.

COMMITTEE: Administrative, October 9, 2015; Recommended for Approval

RECOMMENDED ACTION:

Approve the release of RFP #P2016-11 to solicit proposals from qualified contractors to replace the Pace air handler plug fans and other components on various air handlers at SCAQMD headquarters with new fan wall technology.

Barry R. Wallerstein, D.Env.
Executive Officer

WJJ:BJ

Background

The current Pace air handlers are used to provide conditioned air at SCAQMD headquarters. The air handlers are over 24 years old and have been operating at an average of 20 hours a day 365 days a year. The typical life expectancy of air handlers is from 15 to 20 years. Over the past five years maintenance costs for the air handlers have escalated while the dependability and energy efficiency continues to decline.

The existing air handlers operate with one or two large constant speed plug fans. Each air handler fan ranges in size from 30 inches to 44.5 inches in diameter and is operated by electric motors from 10 to 75 horse power. Currently, should a fan fail, all conditioned air flow to the affected floor will cease until repairs can be made.

Replacement parts for Pace air handlers are no longer available. After extensive research, staff recommends replacing the large constant speed plug fans and other aging components with new energy-efficient fan wall technology within the air handler units. Fan wall technology consists of a group of smaller fans and motors that run independently of each other, but collectively the fans will provide the same volume of conditioned air as the current plug fans. With this new technology, should a fan fail, the others will automatically increase in speed to compensate for the failed fan, allowing staff to make repairs without compromising the air comfort of staff and visitors.

Bids for RFP #P2015-32R were due by 2:00 p.m. on July 29, 2015. Procurement received only a single bid from Emcor Services in the amount of \$1,265,260. Staff recommended rebidding the project to receive additional competitive bids to evaluate for this project.

Proposal

This action is to issue RFP #P2016-11 to solicit proposals from qualified contractors to replace the Pace air handler plug fans and various other components on various air handlers at SCAQMD headquarters with new fan wall technology.

Outreach

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

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

Proposal Evaluation

Proposals received will be evaluated by a diverse, technically qualified panel in accordance with criteria contained in the attached RFP.

Resource Impacts

Sufficient funds are available in the Infrastructure Improvement Special Fund #2.

Attachment

RFP #P2016-11 Refurbishment of Pace Air Handlers



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

REQUEST FOR PROPOSALS

REFURBISHMENT OF PACE AIR HANDLERS

#P2016-11

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

PURPOSE

The purpose of this RFP is to solicit sealed bids/proposals from qualified "C-20 HVAC Contractors for the refurbishment of Pace air handler project for SCAQMD.

Work to be performed on various SCAQMD's Pace air handler units shall consist of removing the existing fan assembly(s) and water coils. New work shall consist of cabinet refurbishment and installation of new fan walls and water coils. SCAQMD reserves the right to do the proposed project in its entirety or any part thereof.

INDEX - The following are contained in this RFP:

Section I	Background/Information
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	Cost Proposal and References
Section XI	Draft Contract

- Attachment A – Statement of Work
- Attachment B – Participation in the Procurement Process
- Attachment C – Certifications and Representations
- Attachment D – Payment Schedule

SECTION I: BACKGROUND/INFORMATION

SCAQMD is a regional governmental agency responsible for the regulation of sources of air contaminants in the South Coast Air Basin.

SCAQMD's headquarters located at 21865 Copley Drive, Diamond Bar, California 91765 consisting of four interconnected buildings designated as the North Office Tower, South Office Tower, Laboratory and Conference Center/Cafeteria.

SECTION II: CONTACT PERSON:

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

Bruce Jacobson
Building Maintenance Manager
SCAQMD
21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-2289
(909) 396-3964 Fax
bjacobson@aqmd.gov

Doug Underwood
Building Supervisor
SCAQMD
21865 Copley Drive
Diamond Bar, CA 91765-4178
(909) 396-2278
(909) 396-3964 Fax
dunderwood@aqmd.gov

SECTION III: SCHEDULE OF EVENTS

November 6, 2015	RFP Released
November 19, 2015	Mandatory Bidder's Conference
December 16, 2015	Proposals Due – No Later Than 2:00 pm
December 16, 2015 - January 15, 2016	Proposal Evaluations
March 25, 2016	Anticipated Contract Execution

MANDATORY BIDDER'S CONFERENCE - A bidder's conference will be held on:

Date: November 19, 2015
Time: 10:00 a.m.
Location: 21865 Copley Drive
Diamond Bar, CA 91765
Room CC-2

Those interested in participating must make reservations to attend the mandatory bidder's conference by calling Verna Negrete at (909) 396-2807.

Bids/proposals will not be accepted from businesses that do not send an authorized representative to the mandatory bidder's conference.

PRE-BID INQUIRIES

All pre-bid inquiries regarding this RFP must be received via fax or email no later than 3:00 p.m. on December 9, 2015. Questions received after this deadline will not be acknowledged.

SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS

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

SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES

Statement of Work - See Attachment A

SECTION VI: REQUIRED QUALIFICATIONS

SCAQMD will enter into a contract agreement with a C-20 HVAC Contractor only. Contractor shall list of all subcontractors to be used on the project. Should the prime Contractor substitute a subcontractor for any of the responsibilities or obligations covered under this agreement without SCAQMD's prior written approval, it will result in termination of the prime contract.

All Contractors and subcontractors shall possess a current Contractor's license issued by the Contractor's State License Board (CSLB) specific to the required trade and shall be registered with PWC-100 with the Department of Industrial Relations (DIR).

The successful Contractor shall furnish evidence of workers' compensation insurance in accordance with California statutory requirements, general liability insurance and automobile liability insurance in accordance with provision 7 of the attached Draft Contract.

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, 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 charged to SCAQMD.

Each proposal must be submitted in three separate volumes. A separate Table of Contents shall be provided for Volumes I and II.

- 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 signed by the person or persons authorized to represent the Contractor shall accompany the proposal. The cover letter shall include the Contractor's business name, address and telephone number of office in, or nearest to, Diamond Bar, California, Contractor's license number, and DIR registration number.

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.

Qualifications (Section C) - Describe the technical capabilities of the firm. Provide references of other similar studies or projects performed during the last five years demonstrating the 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 D) - Provide the following information regarding the staff to be assigned to this project:

List all key personnel assigned to the project by level and name. Provide a resume or similar statement of the qualifications of the lead person and all key personnel assigned to the project. Substitution of the lead person or key personnel, once contract is executed and project is started, will not be permitted without prior written approval of SCAQMD.

Subcontractors (Section E) - This project may require expertise in multiple technical areas. List all subcontractors that may be used and the work to be performed by them on the form provided.

Additional Data (Section F) – Provide any additional data that may assist staff in the evaluation of this proposal.

VOLUME II - COST PROPOSAL

Name and Address - The Cost Proposal shall list the name and complete address including Contractor's license number on the provided forms or in a similar format.

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

1. Detail information must be provided by the following categories:
 - A. Labor Costs - List the hourly billing rate for each level of staff. A breakdown of the proposed billing rates must identify the direct labor rate, overhead rate and amount, fringe benefit rate and amount, general and administrative rate and amount and proposed profit.
 - B. Subcontractor Costs - Identify subcontractors by name, and list subcontractor project costs. Substitution of the subcontractors once proposal is submitted will not be permitted without written approval of SCAQMD.
 - C. Parts and Materials Costs – Identify costs for all parts and materials for each air handler.

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 Section VII above. Failure to adhere to these specifications may be cause for rejection of proposal. It is the responsibility of each bidder to frequently check SCAQMD’s website for all updates and addendums prior to submitting a bid for the project.

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

Due Date - The Proposer shall submit five (5) 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 "RFP #2016-11." **All proposals are due no later than 2:00 p.m., on December 16, 2015, and should be directed to:**

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

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 weight set forth below.

1. Proposal Evaluation Criteria

(a) Projects Requiring Unique Knowledge or Abilities	<u>Points</u>
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 hour 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 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 noncompliance will be subject to a two percent (2%) 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 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's 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's 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 purpose of the (contract or award) would best be served by selecting multiple proposers.
- H. If additional funds become available, the Executive Officer or Governing Board may increase the amount awarded. The Executive Officer or Governing Board may also select additional proposers for a grant or contract if additional funds become available.
- I. Disposition of Proposals – Pursuant to SCAQMD's Procurement Policy and Procedure, SCAQMD reserves the right to reject any or all proposals. All proposals become the property of SCAQMD, and are subject to the California Public Records Act. One copy of the proposal shall be retained for SCAQMD files. Additional copies and materials will be returned only if requested and at the Proposer's expense.
- J. **If proposal submittal is for a Public Works project, as defined by State of California Labor Code Section 1720, Proposer is required to include Contractor Registration No. in Attachment B. Proposal submittal will be deemed as nonresponsive and Bidder may be disqualified if Contractor Registration No. is not included in Attachment C. Proposer is alerted to changes to California Prevailing Wage compliance requirements as defined in Senate Bill 854 (Stat. 2014, Chapter 28) and California Labor Code Sections 1770, 1771 and 1725.**
- K. PAYMENT BOND (MATERIAL AND LABOR BOND) - Within fourteen days after execution of the Contract by SCAQMD and prior to performing any work under the Contract, the Contractor shall file with SCAQMD, a payment bond (material and labor bond) in an amount equal to one hundred (100%) percent of the contract price to satisfy claims of material suppliers and of mechanics and laborers employed by the Contractor to perform the work.
 - A. UNSATISFACTORY SURETIES - Should any Surety, at any time, be deemed unsatisfactory by SCAQMD, notice will be given to the Contractor to that effect. No further payments shall be deemed due, or will be made under the Contract until a new Surety shall qualify and be accepted by SCAQMD.
 - B. EFFECT OF CHANGES IN THE WORK/EXTENSIONS OF TIME ON THE SURETY - Changes in the work or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or the Surety from their obligations under the bond. Notice of such changes or extensions shall be waived by the Surety.

SECTION X: Cost Proposal and References

Name: _____

Address: _____

City, State, Zip Code: _____

Contractor's License Number: _____

Please fill in the following cost breakdown. Include any other costs that may not be listed in order to provide an accurate total bid amount.

AIR HANDLER #1 NEW EQUIPMENT DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
A Fan Wall System			
B. CHW Cold Deck Coil cu/cu (refer to coil schedule)			
C. HW Pre-Heat Coil cu/cu (refer to coil schedule)			
D. HW Hot Deck Coil cu/cu (refer to coil schedule)			
E. Three (3) Access Doors 21" x 60" (WxH)			
F. Hot Deck Damper 96" x 24" (WxH) with DDC Actuator			
G. Cold Deck Damper 96" x 24" (WxH) with DDC Actuator			
H. DDC Valve /Actuator - HW Reheat Coil			
I. DDC Valve /Actuator – CHW Cold Deck Coil			
J. DDC Valve Actuator – HW Hot Deck Coil			
K. Integration of fan wall PLC controller via BACnet IP			
L. Energy Management Equipment and Installation			\$20,885
Total			

AIR HANDLER #1 DEMOLITION (LABOR)	QUANTITY	UNIT COST	TOTAL COST
A. Existing Fan and Motor Assembly			
B. Removal of Existing Coils			
C. Removal of Existing Access Doors and Frame			
D. Removal of Existing Dampers and Actuators			
F. Removal of CHW Cold Deck Coil DDC Valve and Actuator			
G. Removal of HW Reheat Coil DDC Valve and Actuator			
H. Removal of HW Hot Deck Coil DDC Valve and Actuator			
Total			

AIR HANDLER #1 NEW EQUIPMENT INSTALLATION (LABOR)	QUANTITY	UNIT COST	TOTAL COST
A. Fan Wall System			
B. Electrical Control Panel			
C. CHW Cold Deck Coil with Stainless Steel Drain Pan			
D. HW Pre-Heat Coil			
E. HW Hot Deck Coil			
F. Three (3) Access Doors			
G. Hot Deck Damper with DDC actuator			
H. Cold Deck Damper with DDC actuator			
I. DDC Valve /Actuator – HW Reheat Coil			
J. DDC Valve /Actuator – CHW Cold Deck Coil			
K. DDC Valve Actuator – HW Hot Deck Coil			
L. Duct Static Pressure Sensors (Qty 2) – Hot & Cold Deck			
M. Integration of Fan wall PLC Controller via BACnet IP			
N. Audit and Energy Analysis			
O. Contingency - 10% Total Air Handler # 1 Amount			
Total			

AIR HANDLER #2 NEW EQUIPMENT DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
A. Fan wall System			
B. CHW Cold Deck Coil cu/cu			
C. HW Pre-Heat Coil cu/cu			
D. HW Hot Deck cu/cu			
E. Two (2) Access Doors 21" x 60" (WXH)			
F. One (1) Access Door 21" x 48" (WXH)			
G. One (1) Access Door 26" x 60" (WXH)			
H. Hot Deck Damper 120" x 24" (WXH) with DDC actuator			
I. Cold Deck Damper 120" x 24" (WXH) with DDC actuator			
J. DDC Valve / Actuator – HW Reheat Coil			
K. DDC Valve / Actuator – CHW Cold Deck Coil			
L. DDC Valve Actuator – HW Hot Deck Coil			
M. Integration of fan wall PLC controller via BACnet IP			
N. Energy Management Equipment and Installation			\$20,885
Total			

AIR HANDLER #2 DEMOLITION (LABOR)	QUANTITY	UNIT COST	TOTAL COST
A. Existing Fan and Motor Assembly			
B. Removal of Existing Coils			
C. Removal of Existing Access Doors and Frame			
D. Removal of Existing Dampers and Actuators			
F. Removal of CHW Cold Deck Coil DDC Valve and Actuator			
G. Removal of HW Reheat Coil DDC Valve and Actuator			
H. Removal of HW Hot Deck Coil DDC Valve and Actuator			
Total			

AIR HANDLER #2 NEW EQUIPMENT INSTALLATION (LABOR)	QUANTITY	UNIT COST	TOTAL COST
A. Fan Wall System			
B. Electrical Control Panel			
C. CHW Cold Deck Coil with Stainless Steel Drain Pan			
D. HW Pre-Heat Coil			
E. HW Hot Deck Coil			
F. Four (4) Access Doors			
G. Hot Deck Damper with DDC Actuator			
H. Cold Deck Damper with DDC Actuator			
I. DDC Valve / Actuator – HW Preheat Coil			
J. DDC Valve / Actuator – CHW Cold Deck Coil			
K. DDC Valve Actuator – HW Hot Deck Coil			
L. Duct Static Pressure Sensors (Qty 2) – Hot & Cold Deck			
M. Integration of fan wall PLC controller via BACnet IP			
N. Audit and Energy Analysis			
O. Contingency - 10% Total Air Handler # 2 Amount			
Total			

AIR HANDLER #10 NEW EQUIPMENT DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
A. Fan Wall System			
B. CHW Coil cu/cu			
C. HW Coil cu/cu			
D. Two (2) Access Doors 21" x 60" (WxH)			
E. Two (2) Access Doors 21" x 54" (WxH)			
F. Outside Air Damper 77" x 56" DDC Actuator			
G. DDC Valve /Actuator – CHW Coil			
H. DDC Valve Actuator – HW Coil			
I. Integration of Fan Wall PLC Controller via BACnet IP			
J. Energy Management Equipment and Installation			\$24,440
Total			

AIR HANDLER #10 DEMOLITION (LABOR)	QUANTITY	UNIT COST	TOTAL COST
A. Existing Fan and Motor Assembly			
B. Removal of Existing Coils			
C. Removal of Existing Access Doors and Frames			
D. Removal of Existing Dampers and Actuator			
F. Removal of CHW Cold Deck Coil DDC Valve and Actuator			
G. Removal HW Reheat Coil DDC Valve and Actuator			
H. Removal HW Hot Deck Coil DDC Valve and Actuator			
Total			

AIR HANDLER #10 Refinish Interior and Exterior Air Handler	QUANTITY	UNIT COST	TOTAL COST
A. Preparation of Equipment For Paint			
B. Application of Primer and Paint			
Total			

AIR HANDLER #10 NEW EQUIPMENT INSTALLATION (LABOR)	QUANTITY	UNIT COST	TOTAL COST
A. Fan Wall System			
B. Electrical Control Panel			
C. CHW Coil cu/cu with Stainless Steel Drain Pan			
D. HW Coil cu/cu			
E. Four (4) Access Doors			
F. Outside Damper 77" X 56" (W x H) with DDC Actuator			
G. DDC Valve /Actuator – HW Coil			
H. DDC Valve /Actuator – CHW Coil			
I. Duct Static Pressure Sensor (Qty 1)			
J. Integration of Fan Wall PLC controller via BACNet IP			
K. Audit and Energy Analysis			
L. Contingency - 10% Total Air Handler # 10 Amount			
Total			

AIR HANDLER #14 NEW EQUIPMENT DESCRIPTION	QUANTITY	UNIT COST	TOTAL COST
A. Fan Wall System (Supply and Return)			
B. CHW Coil cu/cu With Stainless Steel Drain Pan			
C. Seven (7) Access Doors 21" X 60" (WxH)			
D. Exhaust Damper 60" X 36" (WxH) With DDC Actuator			
E. Make Up Air Damper 24" X 24" (WxH) With DDC Actuator			
F. Outside Air Damper 42" X 61" (WxH) With DDC Actuator			
G. Return Air Damper 54" X 61" (WxH) With DDC Actuator			
H. DDC Valve / Actuator – CHW Coil			
I. Integration of Fan Wall PLC Controller via BACNet IP			
J. Energy Management Equipment and Installation			\$22,662
Total			

AIR HANDLER #14 DEMOLITION (LABOR)	QUANTITY	UNIT COST	TOTAL COST
A. Existing Fan and Motor Assembly			
B. Removal of Existing Coil			
C. Removal of Existing Access Doors and Frames			
D. Removal of Existing Dampers and Actuators			
F. Removal of CHW Coil DDC Valve and Actuator			
Total			

AIR HANDLER #14 NEW EQUIPMENT INSTALLATION (LABOR)	QUANTITY	UNIT COST	TOTAL COST
A. Fan Wall System (Supply and Return)			
B. Electrical Control Panel			
C. CHW Coil with Stainless Steel Drain Pan			
D. Seven (7) Access Doors			
E. Exhaust Damper with DDC Actuator			
F. Make Up Air Damper with DDC Actuator			
G. Outside Air Damper with DDC Actuator			
H. Return Air Damper with DDC Actuator			
I. DDC Valve /Actuator – CHW Coil			
J. Duct Static Pressure Sensors (Qty 2) – (Supply and Return)			
K. Audit and Energy Analysis			
L. Contingency - 10% Total Air Handler # 14 Amount			
Total			

Grand total for all air handlers will be used as the basis of cost in proposal evaluation.

GRAND TOTAL FOR ALL AIR HANDLERS			
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December 16, 2015

To: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
Attention: Procurement Department

SUBJECT: REFURBISHMENT OF PACE AIR HANDLERS FOR VARIOUS AREAS

Based on the GRAND TOTAL cost breakdown provided above, the undersigned, having carefully examined SCAQMD's specification attached hereto, hereby proposes and agrees to furnish all necessary labor, materials, equipment and any other incidentals necessary for the refurbishment of Pace air handlers in various areas in strict conformity with SCAQMD's specification for the stipulated sum of:

\$ _____

_____ Dollars \$ _____

The above pricing is all inclusive. If this proposal is accepted by SCAQMD, the undersigned agrees to execute a contract for work to be accomplished under this proposal and to provide evidence of required workers' compensation insurance and general and auto liability insurance as described in provision 7 of the attached draft contract. SCAQMD reserves the right to do the proposed project in its entirety or any part thereof.

Company Name _____

Company Address _____

Telephone No: _____ Fax No: _____

Title _____

Authorized Signature _____

Authorized by _____
(Print Name)

REFERENCES

Please provide information on a minimum of five clients for whom your company provided services within the past five years, which are similar in scope and size to those described in this RFP so we may contact them for references.

- 1. **Company Name:** _____
Address: _____
Contact Person: _____
Phone Number: _____
Project Description _____
- 2. **Company Name:** _____
Address: _____
Contact Person: _____
Phone Number: _____
Project Description _____
- 3. **Company Name:** _____
Address: _____
Contact Person: _____
Phone Number: _____
Project Description _____
- 4. **Company Name:** _____
Address: _____
Contact Person: _____
Phone Number: _____
Project Description _____
- 5. **Company Name:** _____
Address: _____
Contact Person: _____
Phone Number: _____
Project Description _____

SCAQMD's DESIGNATED SUBCONTRACTOR LIST

Subcontractor Name: _____ **Contact Person:** _____

Address: _____

Description of work: _____

License & DIR Number: _____ **Amount of Subcontract:** _____

Subcontractor Name: _____ **Contact Person:** _____

Address: _____

Description of work: _____

License & DIR Number: _____ **Amount of Subcontract:** _____

Subcontractor Name: _____ **Contact Person:** _____

Address: _____

Description of work: _____

License & DIR Number: _____ **Amount of Subcontract:** _____

Subcontractor Name: _____ **Contact Person:** _____

Address: _____

Description of work: _____

License & DIR Number: _____ **Amount of Subcontract:** _____

Subcontractor Name: _____ **Contact Person:** _____

Address: _____

Description of work: _____

License & DIR Number: _____ **Amount of Subcontract:** _____

Subcontractor Name: _____ **Contact Person:** _____

Address: _____

Description of work: _____

License & DIR Number: _____ **Amount of Subcontract:** _____

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
STATEMENT OF WORK

STATEMENT OF WORK

REFURBISHMENT OF PACE AIR HANDLERS

The objective of this Statement of Work is to specify requirements for the refurbishment of Pace air handlers at SCAQMD headquarters.

The Contractor shall examine SCAQMD's specifications attached hereto. Contractor shall propose and agrees to furnish all necessary labor, specified materials, tools, equipment, transportation, recycling and any other incidentals necessary in strict conformity to SCAQMD's specifications for the project.

1.00 GENERAL REQUIREMENTS

1.01 Statement of Work

Contractor shall provide all labor, materials, tools, equipment, transportation and any other incidentals required for the project completion.

1.02 Contract Bonds

Before execution of the Contract, the Contractor shall file surety bonds in the amounts and for the purpose specified in the RFP. Bonds shall be issued by a surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitations shown in said circular is sufficient to provides bonds in the amount required by the Contract shall be deemed to be approved unless specifically rejected by SCAQMD. Bonds from all other sureties shall be accompanied by all of the documents enumerated in the Code of Civil Procedure, Section 995.660a).

Each bond incorporated, by reference, the Contract and be signed by both the Bidder and Surety. The signature of the authorized agent of the Surety shall be notarized. The Contractor shall provide two good and sufficient surety bonds.

Payment Bond

The Payment Bond (material and labor bond) shall be not for less than 100 percent of the contract price to satisfy claims of material suppliers and mechanics and laborers employed on the project. The Bond shall be maintained by the Contractor in full force and effect until the performance of the contract is accepted by SCAQMD and until all claims for materials and labor are paid, and otherwise comply with the Civil Code. Contractor shall provide SCAQMD Conditional Lien Releases with each payment requisition and Unconditional Lien Releases for the final Project Closeout payment for all material suppliers, mechanics and laborers employed on the project.

Performance Bond

The Performance Bond shall be for 100 percent of the contract price to guaranty faithful performance of all work, within the time prescribed, in a manner satisfactory to SCAQMD, and that all materials and workmanship will be free from original or developed defects. The bond must remain in effect until the end of all warranty periods as set forth in the contract documents

The Contractor shall pay all bond premiums, costs and incidentals.

Should any bond become insufficient, the Contractor shall renew the bond within 10 days after receiving notice from SCAQMD.

Should any surety at any time be unsatisfactory to SCAQMD, notice to the effect will be given to the Contractor. No further payments shall be deemed due or will be made under the contract until a new surety qualifies and is accepted by SCAQMD.

Changes in the project or extension of time, made pursuant to the Contract, shall in no way release the Contractor or surety from the obligation. Notice of such changes or extensions shall be waived by the surety.

1.03 Permits

Unless otherwise provided in the contract documents, Contractor shall obtain and pay for all construction permits and licenses. SCAQMD may assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the completion of the project which are applicable at the time of opening of bids.

1.04 Identification

SCAQMD requires the Contractor and all subcontractor personnel working on SCAQMD's premises to wear uniforms with company logo or some type of company identification. SCAQMD also requires all personnel to sign in upon arrival and sign out upon departure in the Contractor Log Book located at the Main Lobby Security Desk.

1.05 Contractor's Representative

Contractor shall designate a person to act as its representative during the performance of the project. Contractor's representative shall have full authority to represent and act on behalf of the Contractor for all purposes under this project. The Contractor's representative shall supervise and direct the project using his best skills, attention, and shall be responsible for all means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the services under this project.

1.06 Work Hours

Contractor shall work within the following specified times to minimize business disruptions and SCAQMD operations. The work shall commence Fridays at 6:00 p.m. and be completed by the following Monday at 4:00 p.m. at which time affected air handling units shall be in full operation.

1.07 Project Inspections

Periodically, Contractor's representative will be requested to walk the project with SCAQMD's representative for the purpose of determining compliance with the specifications listed in this RFP. SCAQMD will provide Contractor's representative a list of items not in compliance with these specifications. The items on the list must be corrected by Contractor prior to the next scheduled inspection.

1.08 Licensing –

Contractor shall have, and maintain for the duration of the project, a valid California C-20 HVAC contractor's license necessary to perform work under this RFP in compliance with all governmental regulations.

1.09 Contractor Experience –

Contractor shall have at least five (5) years' experience retrofitting air handlers of similar capacity. All work shall be done by qualified and experienced installers working under the Contractor's supervision. Contractor shall have on staff or employ a California licensed Professional Engineer (PE) to perform the required energy payback analysis.

1.10 Contractor Supplied Materials

Contractor shall furnish SCAQMD submittals for all materials to be used on the project for SCAQMD approval prior to starting the project.

1.11 Project Damages

Contractor will be required, at their expense, to repair or replace any damage to include, but not limited to, wall surfaces, flooring or elevator interiors damaged during the performance of the work or any remedial damage identified by SCAQMD.

1.12 Product Handling

Materials provided by the Contractor shall be delivered to the project site unopened in the manufacturer's sealed containers and shall be clearly marked.

1.13 Equipment Maintenance

Contractor shall be responsible for the care and maintenance of all the new equipment installed during this project for a period not to exceed one year from the date of acceptance of the completed project by SCAQMD.

1.14 Equipment Recycling

Contractor shall furnish proof that it is using a certified reclamation and processing facility to recycle old equipment and other materials removed from SCAQMD's facility.

1.15 **Contingency Funds**

Contingency funds will be paid to the Contractor only for any additional work that is required and approved by the Building Maintenance Manager or his designee. At the completion of the project, any remaining contingency funds will be deducted from the Contractor's final invoice.

1.16 **Coordination of Energy Management System Contractor**

Contractor shall provide management and coordinate the energy management/controls installation with Siemens in accordance with the responsibility matrix listed below to ensure 100% completion of the project.

Notes											
DESCRIPTION	POINT TYPE					Notes	Field Device Notes/Responsibility Matrix				
	DO	DI	AO	AI	LAN		Provided by:	Installed by:	Wired by:	Powered by:	Terminations by:
AHU 1 & 2 (typical)						Location - Basement Fan Room					
Fan Wall System Enable	1	1				located in basement Fan Room - these points hard-wired	fan wall	Contractor	*	Contractor	**
Fan Wall Capacity Control Signal			1			hard wired to fan wall controller	fan wall	Contractor	*	Contractor	Siemens
Fan Wall Air Flow Measurement				1		hard wired to fan wall controller	fan wall	Contractor	*	fan wall	Siemens
New CHW Cold Deck Valve			1			Valve furnished by Siemens, installed by others	Siemens	Contractor	Siemens	Siemens	Siemens
New HW Pre Heat Valve			1			Valve furnished by Siemens, installed by others	Siemens	Contractor	Siemens	Siemens	Siemens
New HW Hot Deck Valve			1			Valve furnished by Siemens, installed by others	Siemens	Contractor	Siemens	Siemens	Siemens
Duct Static Pressure (existing)				2		existing devices, existing wiring	n/a	n/a	n/a	n/a	n/a
New Static Pressure Dampers			2			new actuators furnished/installed/powerd by Siemens (dampers by contractor)	Siemens	Siemens	Siemens	Siemens	Siemens
Integration of Fan Wall PLC to DDC					1	Via Bacnet/IP - cat-6 cabling	fan wall/Siemens	fan wall/Siemens	Siemens	n/a	Siemens
Existing Sensors						misc temp and filter monitoring devices - existing to remain	n/a	n/a	n/a	n/a	n/a
AHU 10						Location - kitchen mechanical equip room					
existing OA intake damper (NIC)			3			removed, or abandoned in place by contractor	n/a	n/a	n/a	na/	n/a
Fan Wall Capacity Control Signal			1			hard wired to fan wall controller	fan wall	Contractor	*	Contractor	Siemens
Integration of Fan Wall PLC to DDC					1	Via Bacnet/IP - cat-6 cabling	fan wall/Siemens	fan wall/Siemens	Siemens	n/a	Siemens
Fan Wall Air Flow Measurement				1		hard wired to fan wall controller	fan wall	Contractor	*	fan wall	Siemens
New CHW Valve			1			Valve furnished by Siemens, installed by others	Siemens	Contractor	Siemens	Siemens	Siemens
New HW Valve			1			Valve furnished by Siemens, installed by others	Siemens	Contractor	Siemens	Siemens	Siemens
Existing OA Damper						removed or abandoned in place - no controls	n/a	n/a	n/a	n/a	n/a
Gaylord Units		2				status monitoring for air flow adjustment	n/a	n/a	Siemens	n/a	Siemens
Existing Sensors						misc temp and filter monitoring devices - existing to remain	n/a	n/a	n/a	n/a	n/a

AH-14						Loc: north tower 2nd floor fan room					
New Economizer Dampers (OA/RA/EA)			3			new actuators furnished/installed/powerd by Siemens (dampers by contractor)	Siemens	Siemens	Siemens	Siemens	Siemens
Fan Wall System Enable	1	1				located in fan room - control panel located floor below	fan wall	Contractor	*	Contractor	**
Fan Wall Capacity Control Signal			1			hard wired to fan wall controller	fan wall	Contractor	*	Contractor	Siemens
Fan Wall Air Flow Measurement				1		hard wired to fan wall controller	fan wall	Contractor	*	fan wall	Siemens
New CHW Valve			1			Valve furnished by Siemens, installed by others	Siemens	Contractor	Siemens	Siemens	Siemens
Duct Static Pressure (existing)				2		existing devices, existing wiring	n/a	n/a	n/a	n/a	n/a
Integration of Fan Wall PLC to DDC					1	Via Bacnet/IP - cat-6 cabling	fan wall/Siemens	fan wall/Siemens	Siemens	n/a	Siemens
* internal wiring by fan wall, wiring to DDC by Siemens											
** line voltage terminations by contractor, low voltage terminations by Siemens											
Installation Notes:											
1. Electrical installation of new low voltage connections shall be in accordance with AQMD standards in place											
2. New IP addressing for DDC, if required, to be by AQMD											
3. All new wiring shall be in conduit											
4. Siemens to include all conduit and back-boxes needed for DDC work in scope. Interior walls and inaccessible areas to have EMT conduit and back-box. R											
5. Core drilling by Contractor - if required											
6. Water balance/Air balance by Contractor											

2.00 VOC RESTRICTED PRODUCTS

2.01 SECTION INCLUDES

- A. VOC restrictions for product categories listed below under DEFINITIONS.
- B. All products of each category that are installed on the project must comply with VOC restrictions. SCAQMD does not allow for partial compliance.

2.02 RELATED REQUIREMENTS

- A. Product Substitutions: Any product substitutions shall be approved by SCAQMD prior to use.

2.03 DEFINITIONS

- A. VOC Restricted Products: All products in each of the following categories, when installed or applied on-site, shall comply with all applicable SCAQMD rules:
 - 1. Adhesives, sealants and sealer coatings.
 - 2. Paints and architectural coatings.
 - 3. Insulation.
- B. Adhesives: All gun-able, trowel-able, liquid-applied, and aerosol adhesives, specified or not, including pipe jointing adhesives shall comply with all applicable SCAQMD rules.
- C. Sealants: All gun-able, trowel-able and liquid-applied joint sealants and sealant primers, specified or not, including fire-stopping sealants and duct joint sealers shall comply with all applicable SCAQMD rules.

2.04 REFERENCE STANDARDS

- A. CAL (VOC) - Standard Practice for the Testing of Volatile Organic Emissions From Various Sources Using Small-Scale Environmental Chambers (including Addendum 2004-01); State of California Department of Health Services; 2004
- B. Green Seal GS-36 - Commercial Adhesives; Green Seal, Inc.; 2011.
- C. SCAQMD Rule 1113 - SCAQMD Rule No.1113; current edition; www.aqmd.gov.
- D. SCAQMD Rule 1168 - SCAQMD Rule No.1168; current edition; www.aqmd.gov.

2.05 SUBMITTALS

- A. Evidence of Compliance: Submittal for each different product in each applicable category and evidence of compliance to the Building Maintenance Manager, or his designee, for approval prior to use.
- B. Product Data: For each VOC restricted product used on the project, submit product data showing compliance and MSDS Sheets for each product.

2.06 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Independent firm specializing in performing testing and inspections of the type specified in this section.

3.00 PRODUCTS

3.01 MATERIALS

- A. Adhesives and Joint Sealants: Provide only products having VOC content not greater than required by SCAQMD Rule No.1168.
1. Evidence of Compliance: Acceptable type of evidence is:
 - a. Report of laboratory testing performed in accordance with requirements.
- B. Aerosol Adhesives: Provide only products having VOC content not greater than required by Green Seal GS-36.
1. Evidence of Compliance: Acceptable type of evidence is:
 - a. Current Green Seal certification.
- C. Paints and Coatings:
1. Provide coatings that comply with the most stringent requirements specified in the following:
 - a. 40 CFR 59, Subpart D-National VOC Emission Standards for Architectural Coatings.
 - b. Architectural coatings VOC limits of state in which the project is located.
 2. Determination of VOC Content: Testing and calculation in accordance with 40 CFR 59, Subpart D (EPA Method 24), exclusive of colorants added to a tint base and water added at project site; or other method acceptable to authorities having jurisdiction.
 3. Evidence of Compliance: Acceptable types of evidence are:
 - a. Report of laboratory testing performed in accordance with requirements.
 - b. SCAQMD Rule 1113 - SCAQMD Rule No.1113; current edition; www.aqmd.gov.
 - c. SCAQMD Rule 1168 - SCAQMD No.1168; current edition; www.aqmd.gov.

4.00 Extra Work

In the event Contractor is requested and agrees to perform extra work not otherwise specified, the following procedure will govern.

4.01 New or Unforeseen Work

Work not identified in the Statement of Work will be classified as extra work. In the event the Contractor is requested and agrees to perform extra work, the following procedure will govern. Contractor shall submit an itemized written estimate for all labor and materials proposed for the extra work. Extra work shall not commence prior to receiving written authorization by SCAQMD's Building Maintenance Manager or his designee. Extra work will

be executed on a lump sum price, unless a basis for time and material is agreed upon. Extra work may include, but is not limited to unforeseen damages, repairs or replacements due to vandalism or acts of God.

Contractor will not be granted the exclusive right to said extra work.

SPECIFICATIONS

1. Fanwall

1.1. Fans

- a. Fans shall be aluminum airfoil, Class III, direct drive arrangement and shall be individually housed. Fans shall be certified by AMCA for performance. Fans shall be housed in a cell.
- b. Fan housing or cell shall be constructed of aluminum or stainless steel with perforated inner liner, melamine insulation, with either solid or perforated outer panels as required by applications.
- c. Fan/motor shall be mounted within the housing on an adjustable slide rail base. Fan/motor assembly must be capable of either horizontal or vertical application.
- d. Each fan/motor assembly shall be dynamically balanced to meet AMCA standard 204-96 for fan application class BV-5 to meet or exceed a rotational imbalance Grade .55, producing a maximum rotational imbalance of .022" per second peak, filter in (.55 mm per second peak, filter in). Filter in measurement indicates that the specified balance grade must be achieved at the submitted design operating speed for the fan(s). Fan and motor assemblies submitted for approval, incorporating larger than 215T frame, shall be balanced in three orthogonal planes to demonstrate compliance with the G.55 requirement with a maximum rotational imbalance of .022" per second peak filter in (.55 mm per second peak, filter in).
- e. Fan and motor assemblies shall be designed for application in multiple fan arrays.

1.2. Fan Backdraft Dampers

- a. Each fan applied in multiple fan applications shall be provided with an integral backflow prevention device that prohibits recirculation of air in the event a fan, or multiple fans, becomes disabled. The system effect for the submitted backflow prevention device shall be included in the calculation to determine the fan TSP for fan selection purposes, and shall be indicated as a separate line item SP loss in the submitted fan selection data. Manufacturers, other than the basis of design being submitted, must provide independent lab certification of fan testing that indicates the system effects attributed to the submitted backflow prevention device in the submitted close coupled mounting arrangement at the inlet of the fan. Fans submitted with discharge dampers will not be approved.
- b. Backdraft damper performance data that is based on an AMCA ducted inlet and ducted discharge mounting configuration will not be accepted. Submitted backflow prevention device data must be reflective of close coupled mounting at the intake of the fan(s) per the project design documents. Motorized dampers or other motorized devices submitted for backflow prevention are not acceptable.
- c. Zero pressure drop backdraft damper

1.3. Fan Airflow Monitoring

- a. Fans shall have noninvasive, zero pressure drop flow a/o pressure sensing taps installed in the fan inlet cone for airflow monitoring capability as specified.

1.4. Motors

- a. All motors shall be standard AC motors, foot mounted type, TEFC or TEAO motors selected at the specified operating voltage, RPM, and efficiency as specified or as scheduled elsewhere.
- b. Motors shall meet the requirements of NEMA MG-1 Part 30 and 31, section 4.4.2.
- c. Motors shall be manufactured by Baldor or Toshiba. Motor requirements for each fan wall are listed below. Fan arrays with motor sizes and/or quantities different than what is shown below shall not be acceptable.
 - a. AH-1: 3 W x 2 H Array with (6) 6 hp Motors
 - b. AH-2: 4 W x 3 H Array with (12) 6 hp Motors
 - c. AH-10: 3 W x 2 H Array with (6) 3 hp Motors
 - d. AH-14-SF: 3 W x 2 H Array with (6) 6 hp Motors
 - e. AH-14-RF: 2 W x 2 H Array with (4) 3 hp Motors
- d. All motors shall include permanently sealed bearings and shaft grounding means to protect the motor bearings from electrical discharge machining due to stray shaft current. Motors, provided with hybrid ceramic bearings, when specified, do not require shaft grounding devices.

1.5. Multiple Fan Array

- a. The fan array shall consist of multiple housed fans or cells, spaced in the air way tunnel cross section to provide a uniform airflow and velocity profile across the entire air tunnel cross section and components therein for all points in operating range.
- b. Each fan and motor assembly shall be removable through a 24" wide, free area, access door located on the discharge side of the fan wall array without removing the fan wheel from the motor.
- c. All fans in multiple fan arrays shall be AMCA certified for performance per AMCA arrangement A testing configuration. The submitted fan performance shall be inclusive of system effects attributed to the fan mounting arrangement, fan enclosures, backdraft dampers, and other fan appurtenances not considered when AMCA certified performance per AMCA arrangement A is determined. Submitted AHU/fan performance that does not indicate allowances for system effects for the backflow prevention device(s), wheel enclosures, safety screens, bearing pedestals, belt guards, or the fan and motor enclosure in which each fan is mounted, will be returned to the Contractor disapproved and will need to be resubmitted with all of the requested information included for approval. Added

system effects for acoustic attenuators, or other devices required to meet specified fan performance and sound power levels must be indicated in the submitted fan selection data.

- d. Fan system power requirements or sound power levels that fail to meet specified performance levels will not be acceptable. Any proposed corrections for power or sound deviations from the specified values must be submitted to the engineer for approval prior to implementation of any proposed corrective procedure.
- e. Fanwall shall be capable of individually isolating, disconnecting and servicing individual or multiple fans, VFDs or motors without affecting the performance of the remaining fans or require the need to shut down the entire fan array.
- f. Manufacturers that do not manufacture their own fans for the specific purpose of use in multiple fan arrays are not acceptable.

2. Electrical:

2.1. Overview:

- a. Provide a complete electrical and control system required to run the Fanwall system including all equipment, material, electrical enclosures, electrical components and electrical labor.
- b. Controls Contractor shall provide all low voltage wiring and conduit required for a complete and operable system.
- c. Fanwall designs shall be in accordance with specific requirements. Please see system requirements before electrical design of Fanwall system is to commence.
- d. Fanwall electrical designs shall be in accordance with the NEC, UL 508A and local codes.

2.2. Motor Circuit Protection:

- a. All motors in the Fanwall array shall be provided with individual motor protection for thermal overload protection. All motor circuit protectors shall be located in main enclosures.
- b. As required by design, all motor circuit protectors shall be mounted and located in a remote motor circuit protector panel as needed that is separate from the main enclosure. Motor circuit protector enclosures must be located and mounted at a minimal distance from the motors in the Fanwall array.

2.3. Variable Frequency Drive Control and VAV optimization:

- a. As required by system design, provide individual multiple micro variable frequency drives for each fan to start and run all motors in the Fanwall array. The variable frequency drives shall be sized accordingly to start and hold each motor in the Fanwall.
- b. Each variable frequency drive shall be provided with an electrical disconnect to isolate each VFD/Fan/Motor assembly.
- c. Fanwall systems with a single VFD controlling all fans are not acceptable.

- d. Fanwall systems with a redundant VFD package are not acceptable.

2.4. Programmable Logic controller (PLC):

- a. As required by system design, provide a Programmable Logic Controller (PLC) to control all functions of the Fanwall array system. The PLC system will be designed and programmed to control auto and manual functions, provide CFM totalizing, CFM control, Bypass operation, and control redundant drive operation and all functions required by the Fanwall system. Provide operator interface unit for communication with PLC. PLC shall communicate BMS via BACnet IP.
- b. The PLC, and all other PLC related equipment, shall be mounted in a dedicated NEMA 3R enclosure for connection to single point power. The enclosure shall be provided with a main disconnecting means. Provide appropriate cooling of the enclosure. Controller will be provided with a 5.7" color touch screen display.
- c. PLC shall provide Fanwall optimization which shall optimize the control of each individual fan independently as to minimize energy consumption at any given condition. Optimization shall have the capability to selectively shut off fans and increase the fan speed of the remaining fans to maintain fan operation at peak efficiency at part load conditions. Optimization controls package shall have the capability to show energy savings over a Fanwall system using only a single VFD.
- d. PLC shall provide Fanwall redundancy controls. Fanwall redundancy controls shall include the ability to increase the fan speed of the remaining fans in the event a single fan fails to maintain consistent airflow.

2.5. Input Line Filters:

- a. As required by electrical design, when using variable frequency drives, provide input line reactors with 3% impedance externally if not already internal to the variable frequency drive.

2.6. Output Line Filters:

- a. As required by electrical design, when using variable frequency drives where distance and filtering is an issue, provide output line reactors as required. Size output filter accordingly to manufacturer's recommendations.

2.7. Shaft Grounding – Isolated Bearings:

- a. As required by system design, when using variable frequency drives, provide either a shaft grounding system or isolated bearings for each AC motor to prevent electrical damage to motor bearings and extend motor life by safely channeling harmful shaft currents to ground.

2.8. Acoustical Performance

- a. Coplanar silencer(s) shall be provided for each individual fan. Losses from sound attenuating devices must be included in the fan performance selection.

- b. Listed or alternate manufacturers, other than basis of design providing fan arrays that incorporate fans which are not manufactured by the basis of design manufacturer, must provide modeled acoustical performance of the entire fan array.
- c. Sound and performance data for approval showing only single fan performance for multiple fan array supplication will not be acceptable.

2.9. Serviceability

- a. Coplanar silencer(s) shall be provided for each individual fan. Losses from sound attenuating devices must be included in the fan performance selection.

2.10. Acceptable Manufacturers

- a. Huntair (base of design)
- b. Temtrol
- c. Governair

1. Pre-Bid Analysis of Fanwall System

- 1.1. A site analysis shall be performed prior to bid to assess the logistics of removing the existing fans and installation of Fanwall. Assessment shall include a report on the general summary of the work to be performed and shall address ingress and egress to the AHUs for the retrofit work.
- 1.2. A submittal of the proposed Fanwall shall be provided at the time of bid.
- 1.3. A preliminary energy calculation shall be provided to SCAQMD by the Fanwall manufacturer prior to the bid due date. Energy calculation shall include an estimated energy consumption of the current fan system and a calculation of projected energy savings for the Fanwall system. All calculations shall be fully disclosed and explained in full detail.
- 1.4. Contractor shall provide
 - Full test and air balance report (TAB) prior and post retrofit work.
 - Contractor shall provide SCAQMD an energy analysis for any utilities rebate incentives.

2. Post-Bid Support of Fanwall System

- 2.1. Factory authorized support shall be local to job site and available at any time during the Fanwall retrofit process for technical information and support.
- 2.2. Factory authorized support shall provide controls integration assistance to integrate the Fanwall system to the existing building management system.

2. COILS

- 2.1. Chilled and hot water shall be of the copper plate ripple fin 0.008" copper, extended surface rated in accordance with ARI 410 for water, steam or ethylene/propylene glycol water mixture. The tubes shall have a 0.020" wall thickness of seamless copper expanded into the fin collars to provide a permanent mechanical bond. No metallic or thermal bonding materials are acceptable. Return bends shall be a minimum of one tube thickness greater than the main tubes brazed replaceable copper. "U" type shaped tubes are not acceptable. Coil headers shall be nonferrous seamless copper (cast iron headers are not acceptable) and provided with Schedule 40 Red Brass male pipe connections. Pipe connections shall be same end connections. Each coil supply and return connections shall be raised and/or lowered a minimum 6" from the bottom and/or top of the coil to allow room for piping connection hookup especially between stacked coils, coils near floors and coils near roofs. Each coil shall be provided with capped 1/2" brass vent and drain connections extended to the exterior of the cabinet. All coils shall be fully drainable with no trapped tubes. Coils shall have counter flow design with connections either left or right hand as specified. The use of internal restrictive devices such as turbo-later springs or ribbons to obtain turbulent construction is not acceptable.
- 2.2. Coil casings shall be a minimum of 304-16 gauge stainless steel with formed 3/4" flanges (or 1-1/2", 2" or custom) on all sides of the coil with the tube sheets having pressed or extruded tube holes. The coil casing shall be reinforced so that the maximum unsupported length is 60". The reinforcements shall be of the same material as the casing. Both ends of the coil to be sealed off from the main air stream by full height blank offs on both the entering air and leaving air sides. Blank offs to be the same material as the coil casing. Headers and return bends to be further insulated with a closed cell neoprene gasket the full height and width of the coil casing to reduce condensation.
- 2.3. All coils are to be tested and rated in accordance with the Air Conditioning and Refrigeration Institute (ARI) Standard 410 and certified in accordance with the ARI certification program. All tubes shall be tested at a minimum 450 PSIG and all assemblies tested under water at 450 PSIG for a minimum of five minutes and rated for 450 PSIG working pressure. Individual tube and core tests, before installation of header, are not considered satisfactory. Hydrostatic tests alone will not be acceptable.
- 2.4. Coil supply and return piping connections extending through the cabinet wall shall be sealed by (caulking) (rubber grommets with caulking) (double escutcheon plate) on the exterior of the casing. The escutcheon plate shall have a rolled collar around the pipe opening to protect the pipe and be equipped with an "O" ring rubber gasket between the collar and the pipe to prevent chaffing and provide an air tight seal around the opening. All new piping and connections shall be reinsulated per Title 24.
- 2.5. A site survey and measurement shall be performed and full submittals of exact sizing and fitment shall be provided prior to installation.

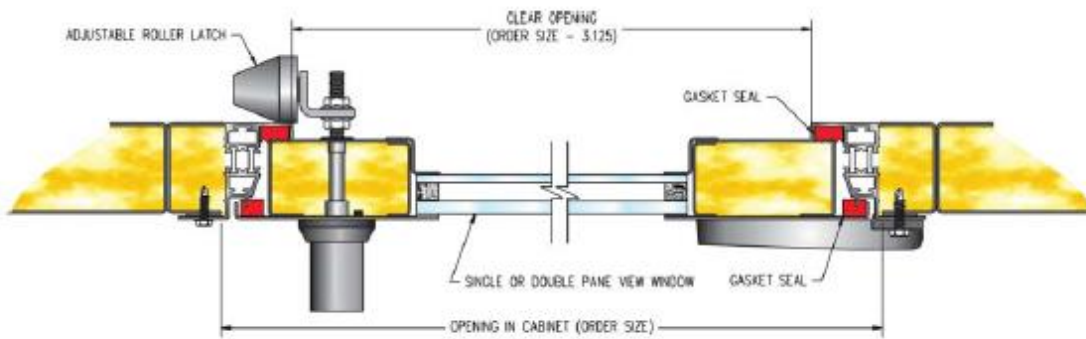
3. ACCESS DOORS

- 3.1. Access doors shall be (2") double wall, thermal break construction with powder coated G-90 galvanized exterior panels and G-90 galvanized interior panel. Door jamb and frame shall be constructed of extruded aluminum with continuously welded corners for rigidity. Door panels shall be insulated with 2" expandable urethane foam insulation completely encapsulated and sealed between the door panels and frame. Doors shall be located and sized to allow for routine maintenance including motor replacement, electrical components and any other sections or components requiring access or maintenance.
- 3.2. Doors shall be provided with a minimum (2) dual acting heavy duty key locking and non-locking composite latches through 48" high and (3) latches through 72" high. Latches shall be operable from both the interior and exterior of the unit. Door hinge shall be stainless steel heavy duty self-aligning 3-way adjustable and removable.
- 3.3. Doors shall be provided with a dual high performance closed cell replaceable EPDM sponge rubber seal around the entire perimeter of the door and frame.
- 3.4. Doors shall open against static pressure unless obstructed by internal components. If obstructed by internal components on the positive sections requiring access, the doors shall open with pressure and shall be provided with a safety restraining mechanism. Doors used to access rotating equipment shall be provided with an OSHA-approved safety latching mechanism requiring a tool to open and shall also have a highly visible, permanently fixed, caution sign on the exterior of the door. Doors with access to moving parts must also have locking hardware and meet current UL mechanical protection guidelines.
- 3.5. Doors shall be provided with double pane wire reinforced glass viewing windows as specified on the unit drawings in the specifications. Minimum window size to be 9" x 9" with 12" x 12" provided door size permitting.
- 3.6. Door and frame must be provided by the same manufacturer and matched to ensure proper fitment.
- 3.7. A site survey and measurement shall be performed and full submittals of exact sizing and fitment shall be provided prior to installation.
- 3.8. Coordination with door vendor and installing Contractor at the jobsite shall be performed prior to installation to minimize unit downtime.

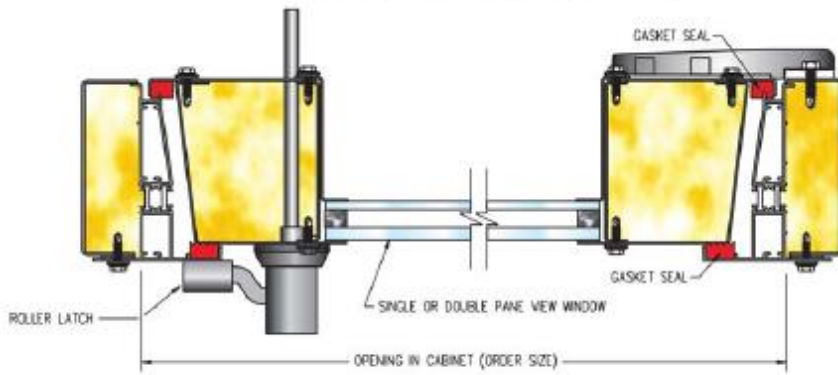
3.9. Acceptable Manufacturers

- a. Huntair (base of design)
- b. Temtrol

c. Governair



OUT SWING DOOR SAMPLE



IN SWING DOOR SAMPLE

4. DAMPERS

4.1. Control Dampers:

- a. Damper blades shall be 16 gauge galvanized steel 3V type with three longitudinal grooves for reinforcement. Blades shall be completely symmetrical relative to their axle pivot point presenting identical resistance to airflow and operation in either direction through the damper (blades that are non-symmetrical relative to their axle pivot point or utilize blade stops larger than 0.500" are unacceptable). Blade seals shall be TPE. Linkage shall be blade-to-blade concealed in jamb (out of the airstream) to protect linkage and reduce pressure drop and noise.
- b. Damper frame shall be 16 gauge galvanized steel formed into a structural hat channel shape with reinforced corners to meet 11 gauge criteria. Bearings shall be corrosion resistant, permanently lubricated, synthetic (acetal) sleeve-type rotating in extruded holes in the damper frame for maximum service. Axles shall be square and positively locked into the damper blade. Jamb seals shall be flexible stainless steel compression type to prevent leakage between blade end and damper frame.
- c. The damper manufacturer's submittal data shall certify all air leakage and air performance pressure drop data is licensed in accordance with AMCA's Certified Ratings Program for Test Figures 5.2, 5.3 and 5.5. Damper air performance data shall be developed in accordance with the latest edition of AMCA Standard 500-D.

4.2. Acceptable Manufacturers

- a. Greenheck Model VCD-23
- b. Ruskin
- c. Tamco

5. Controls Section

Currently, the AH-1, 2, 10 and 14 are programmed for a constant volume application and will remain constant volume through the end of this project. At a later date, the space and air handling unit will be converted to VAV. All existing controls, including but not limited to, valves, actuators and sensors will be upgraded to DDC and tied into the BMS through the existing BMS controller. The new air handling unit Fanwall section will be provided with a BACnet controller (for the Fanwall section only) from the manufacturer's factory which will be integrated into the BMS by Siemens. Siemens shall update graphics to reflect new Fanwall system as well as assist with all milestones including start up and commissioning. The controls Contractor shall provide all wiring and conduit as required for a complete and operable system.

PAINT SPECIFICATIONS FOR AIR HANDLER 10

PARTS 1 – GENERAL

1.01 SUMMARY:

- A. Section includes: Painting and finishing of all interior and exterior items and surfaces, unless otherwise indicated or listed under exclusions below:
1. Paint all exposed surfaces, except as otherwise indicated, whether or not colors are designated. Include field painting of exposed exterior and interior plumbing, mechanical and electrical work.
- B. Work Included:
1. The intent and requirements of this section is that all work, items and surfaces which are normally painted and finished on an air handler of this type shall be included in this contract, whether or not said work, item or surface is specifically called out and included in the schedules and notes on the drawings, or is, or is not, specifically mentioned in these specifications.
- C. The following general categories of work and items that are included under other sections shall not be a part of this section:
1. Shop prime painting of structural and miscellaneous iron or steel.
 2. Shop prime painting of hollow metal work.
 3. Shop finished items.
- D. The air handler finish schedule indicated in the specifications the location of the surfaces to be painted or finished. The scheduled indications are general and do not necessarily define the detail requirements. Include all detailed refinements and further instructions as may be given for the required complete finishing of all surfaces.
- E. Related Sections:
- Section 05 70 00 – Ornamental Metal
 Section 07 17 50 - Water Repellent Coatings
 Section 09 96 00 – High Performance Coatings

1.02 SUBMITTALS:

- A. Product Data: Submit complete manufacturer's descriptive literature and specifications.
1. Materials List: Submit complete lists of materials proposed for use, giving the manufacturer's name, catalog number and catalog cut for each item when applicable. When required, provide a list of paint and coating materials proposed for use, which equates to such materials with the design-basis products specified.

- B. Samples: Submit, on an 8-1/2" X 11" hardboard, samples of each color, gloss, texture and material selected by SCAQMD from standard colors available for the coatings required.
- C. Manufacturer's Instructions: Submit the manufacturer's current recommended methods of installation, including relevant limitations, safety and environmental precautions, application rates and composition analysis.

1.03 QUALITY ASSURANCE:

- A. Regulatory Requirements: Comply with applicable codes and regulations of governmental agencies having jurisdiction, including those having jurisdiction over airborne emissions and industrial waste disposal. Where those requirements conflict with this specification, comply with the more stringent provisions.

Regulatory changes may affect the formulation, availability or use of specified coatings. Confirm availability of coatings to be used prior to start of the air handler painting project.

- a. Comply with the current applicable regulations of the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA).
 - b. Comply with SCAQMD's Rule 1113. A copy of this regulation can be obtained from <http://www.aqmd.gov/rules/reg/reg11/r1113.pdf>.
- B. Field Sample: When and as directed by SCAQMD, apply one complete coating system for each color, gloss and texture required. When approved, the sample panel areas will be deemed incorporated into the work and will serve as the standards by which the subsequent work of this section will be judged.

1.04 DELIVERY, STORAGE, AND HANDLING:

- A. Storage and Protection: Use all means necessary to protect the material of this section before, during and after installation.
- B. Deliver materials to job site in new, original and unopened containers bearing manufacturer's name and trade name. Store where directed in accordance with manufacturer's instructions.

1.05 PROJECT CONDITIONS:

- A. Do not apply exterior materials during fog, rain or mist or when inclement weather is expected within the dry time specified by the manufacturer. No exterior or interior painting shall be done until the surfaces are thoroughly dry

and cured. Do not apply paint when temperature is below 50° F. Avoid painting surfaces when exposed to direct sunlight.

PART 2 – PRODUCTS

2.01 MANUFACTURERS:

- A. Manufacturer's catalog names and number of paint types in this section herein are based on products manufactured or distributed by Dunn-Edwards Corporation www.dunnedwards.com and are the basis of design against which SCAQMD will judge equivalency. The quantity of titanium dioxide, the use of clays, aluminum silicate, talc and the purity of acrylic materials are a few of the criteria which will be used by SCAQMD in determining equivalency of materials.
- B. Substitutions: Requests for substitutions will be considered. When submitting a request for substitution, provide complete product data specified above under submittals for each substitute product.
- C. Acceptable manufacturers to include but not limited to:
 - 1. Carboline www.carboline.com
 - 2. Deft www.deftfinishes.com
 - 3. Dumond Chemicals www.dumondchemicals.com
 - 4. Okon www.okoninc.com
 - 5. Rustoleum www.rustoleumibg.com
 - 6. Valspar www.valsparwood.com

2.02 MATERIALS:

- A. Paints: Provide ready-mixed except field catalyzed coatings. Pigments shall be fully ground maintaining soft paste consistency, capable of being readily and uniformly dispersed to complete homogeneous mixture. Paints shall have good flowing and brushing properties and be capable of drying or curing free of streaks and sags.
- B. Accessory Materials: Linseed oil, shellac, solvents, and other materials not specified but required to achieve required finishes shall be of high quality and approved by manufacturer.
- C. Colors shall be selected from color chip samples provided by manufacturer of paint system approved for use. Match approved samples for color, texture and coverage.
- D. Aromatic Compounds: Paints and coatings shall not contain more than 1.0 percent by weight of total aromatic compounds (hydrocarbon compounds containing one or more benzene rings).
- E. Restricted Components: Paints and coatings shall not contain any of the following:
 - 1. Acrolein

2. Acrylonitrile
3. Antimony
4. Benzene
5. Butyl benzyl phthalate
6. Cadmium
7. Di (2-ethylhexyl) phthalate
8. Di-n-butyl phthalate
9. Di-n-octyl phthalate
10. 1,2-dichlorobenzene
11. Diethyl phthalate
12. Dimethyl phthalate
13. Ethylbenzene
14. Ethylene Glycol
15. Formaldehyde
16. Hexavalent chromium
17. Isophorone
18. Lead
19. Mercury
20. Methyl ethyl ketone
21. Methyl isobutyl ketone
22. Methylene chloride
23. Naphthalene
24. Toluene (methylbenzene)
25. 1,1,1-trichloroethane
26. Vinyl chloride

2.04 MIXES:

- A. Mix, prepare and store painting and finishing materials in accordance with manufacturer's directions.

PART 3 - EXECUTION

3.01 EXAMINATION:

- A. Examine surfaces to be painted before painting begins. Work of other trades that has been left or installed in a condition not suitable to receive paint or other specified finish shall be repaired or corrected by the applicable trade before painting. Painting of defective or unsuitable surface implies acceptance of the surfaces.

3.02 PROTECTION:

- A. Protect previously installed work and materials, which may be affected by work of this section:
 1. Protect prefinished surfaces and adjacent surfaces against paint and damage.

2. Furnish sufficient drop cloths, shields and protective equipment to prevent spray or splatter from fouling surfaces not being painted.
 3. Protect surfaces, equipment and fixtures from damage resulting from use of fixed, movable and hanging scaffolding, planking and staging.
- B. Provide wet paint signs, barricades and other devices required to protect newly finished surfaces. Remove temporary protective wrappings provided by others for protection of their work after completion of painting operations.

3.03 PREPARATION:

- A. Perform preparation and cleaning procedures in strict accordance with coating manufacturer's instructions for each substrate condition.
- B. Sand and scrape metal to remove loose primer and rust.
- C. Non-Ferrous Metal: Chemically or solvent clean and then treat with an etching-type solution, if recommended by the finish manufacturer. Cleaned and retreated Non-Ferrous Metal shall be primed the same day that cleaning has been performed.
- D. Remove hardware and accessories, machined surfaces, plates, lighting fixtures and similar items in place and not-to-be-finish painted or provide surface-applied protection. Reinstall removed items upon completion of work in each area.
- E. Existing surfaces to be recoated shall be thoroughly cleaned and deglossed by sanding or other means prior to painting. Patched and bare areas shall be spot primed with same primer as specified for new work.
- F. Thoroughly back paint all surfaces with the priming coat. Use a clear sealer for back priming where transparent finish is required.
- G. Bare and covered pipes, ducts, hangers, exposed steel and ironwork and primed metal surfaces of equipment installed under mechanical and electrical work shall be cleaned prior to priming.
- H. Preparation of other surfaces shall be performed following specific recommendations of the coatings manufacturer.
- I. Bond breakers and curing agents shall be removed and the surface cleaned before primers, sealers or finish paints can be applied.

3.04 APPLICATION:

- A. Apply painting and finishing materials in accordance with the manufacturer's recommendations.

- 1. The number of coats specified is the minimum that shall be applied. Apply additional coats when undercoats or other conditions show through final paint coat, until paint film is of uniform finish, color and appearance.
- B. Apply each material at not less than the manufacturer's recommended spreading rate:
- C. Apply prime coat to surface which is required to be painted or finished.
- D. Sand lightly and dust clean between succeeding coats.

3.05 CLEANING, TOUCH-UP AND REFINISHING:

- A. Carefully remove all spatter, spots and blemishes caused by work under this section from surfaces throughout the project.
- B. Upon completion of painting work, remove all rubbish, paint cans and accumulated materials resulting from work in each space or room. All areas shall be left in a clean, orderly condition.
- C. Runs, sags, misses, holidays, stains and other defects in the painted surfaces, including inadequate coverage and mil thickness shall be satisfactorily touched up, or refinished, or repainted as necessary to the approval of SCAQMD.

3.06 FINISH SCHEDULE:

- A. Apply the following finishes to the surfaces specified. Apply all materials in accordance with manufacturer's instructions on properly prepared surfaces and foundation coats. All intermediate undercoats must be tinted to approximate the final color.
 - 1. SCAQMD will issue a color schedule prior to start of painting to designate the various colors and locations required for the work.
- B. Exterior and Interior of Air Handler 10:

Non-Ferrous Metal:

a. Flat

Pretreatment	SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01)
First Coat	GALV-ALUM Premium, Non Ferrous Metal Primer (GAPR00)
Second Coat	EVERSHIELD, Exterior Flat Paint (EVSH10)
Third Coat	EVERSHIELD, Exterior Flat Paint (EVSH10)

b. Velvet Sheen -

Pretreatment	SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01)
First Coat	GALV-ALUM Premium, Non Ferrous Metal Primer (GAPR00)
Second Coat	EVERSHIELD, Exterior Velvet Paint (EVSH20)
Third Coat	EVERSHIELD, Exterior Velvet Paint (EVSH20)

c. Eggshell -

Pretreatment	SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01)
First Coat	GALV-ALUM Premium, Non Ferrous Metal Primer (GAPR00)
Second Coat	EVERSHIELD, Exterior Eggshell Paint (EVSH30)
Third Coat	EVERSHIELD, Exterior Eggshell Paint (EVSH30)

d. Low Sheen -

Pretreatment	SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01)
First Coat	GALV-ALUM Premium, Non Ferrous Metal Primer (GAPR00)
Second Coat	EVERSHIELD, Exterior Low Sheen Paint (EVSH40)
Third Coat	EVERSHIELD, Exterior Low Sheen Paint (EVSH40)

e. Semi-Gloss -

Pretreatment	SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01)
First Coat	GALV-ALUM Premium, Non Ferrous Metal Primer (GAPR00)
Second Coat	EVERSHIELD, Exterior Semi-Gloss Paint (EVSH50)
Third Coat	EVERSHIELD, Exterior Semi-Gloss Paint (EVSH50)

f. Semi-Gloss – High Performance

Pretreatment	SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01)
First Coat	CARBOLINE, CORBOMASTIC EPOXY 15
Second Coat	CARBOLINE, CARBOTHANE, Acrylic Polyurethane 133 Series
Third Coat	CARBOLINE, CARBOTHANE, Acrylic Polyurethane 133 Series

g. Gloss -

Pretreatment	SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01)
First Coat	GALV-ALUM Premium, Non Ferrous Metal Primer (GAPR00)
Second Coat	EVERSHIELD, Exterior Gloss Paint (EVSH60)
Third Coat	EVERSHIELD, Exterior Gloss Paint (EVSH60)

h. Gloss – High Performance

Pretreatment	SUPREME CHEMICAL, METAL CLEAN AND ETCH (ME 01)
First Coat	CARBOLINE, CARBOLINE, CORBOMASTIC EPOXY 15
Second Coat	CARBOLINE, CARBOTHANE, Acrylic Polyurethane 134 Series
Third Coat	CARBOLINE, CARBOTHANE, Acrylic Polyurethane 134 Series

NOTICE

Availability of products listed in this specification may be affected by local, state, or federal regulatory requirements for architectural coatings. Consult your paint manufacturer representative for information on current product availability. Submittals prepared by paint manufacturer in accordance with this specification may include product codes that are modified with a suffix to indicate the specific product formulation currently available to meet applicable requirements.

END OF SECTION

PROJECT CLOSEOUT PROCEDURES

SECTION INCLUDES:

1. Contract closeout, including final cleaning, preparation and submittal of closeout documents, warranties and final completion certification.
2. Closeout submittals and submittal forms in both hard copy and electronic format.

CLOSEOUT DOCUMENTS

- A. Contractor shall submit the following closeout submittals prior to making a written request for final completion.
 1. Evidence of compliance with requirements of governing authorities
 2. As-built documents
 3. Final operation and maintenance manuals
 4. Spare parts
 5. Warranties

EVIDENCE OF COMPLIANCE WITH REQUIREMENTS OF GOVERNING AUTHORITIES

- A. Contractor shall submit the following:
 1. Release from each agency indicating final acceptance

AS-BUILT DOCUMENTS

- A. Contractor shall maintain the following at SCAQMD: one as-built copy of the drawings and specifications, operation maintenance manuals, coordination drawings and shop drawings that are clearly marked with a red felt-tip pen to indicate all changes and or revisions resulting from the following:
 1. Actual project as constructed by Contractor
 2. Addenda
 3. Change orders and other modifications
 4. Field revisions
 5. Request for Information (RFI)
 6. All other changes
- B. Section includes:
 1. Maintenance of documents and samples
 2. Marking devices
 3. Recording
 4. Submittal delivery
 5. Closeout submittal delivery

MAINTANANCE OF DOCUMENTS AND SAMPLES

- A. Contractor shall store and maintain documents and samples at their office apart from documents used for construction.
- B. Contractor shall file documents and samples in accordance with Construction Specifications Institute (CSI) format.

- C. Contractor shall maintain documents in clean, dry, legible condition and in good order. Contractor shall keep as-built documents separate from those used for construction.
- D. Contractor shall make documents and samples available at all times for reference by SCAQMD.
- E. Contractor shall keep documents current.
- F. Contractor shall record required information at the times the material and equipment is installed and before permanently concealing.
- G. During progress meetings, as-built documents may be reviewed to ascertain that changes have been recorded.
 1. Prior to submission of progress payment, Contractor shall update the contract drawings using a red felt tip pen and submit the drawing updates showing all changes occurring prior to that date including all previous changes.
 2. The drawing markups will be provided as a PDF document through the submittal process.
 3. Submittal shall consist of two CD's with every drawing in pdf format.
 4. Updated drawings, when provided by Contractor, will be substituted for the hand markups.
- H. If determined by SCAQMD that the as-built drawings are inadequate or incomplete, the next scheduled progress payment shall be withheld until as-built documents are acceptable to SCAQMD.

MARKING DEVICES

- A. Contractor shall use a red color for recording all information to all documents.

RECORDING

- A. Contractor shall label each document "as-built record" in neat large red printed letters.
- B. Contractor shall record information concurrently with construction progress. Contractor shall not conceal any work until required information is recorded.
- C. Drawings shall be legibly marked to record actual construction. Contractor shall:
 1. Record actual schedules lists, drawings and wire diagrams.
 2. Record field changes of dimensions and detail.
 3. Record changes made by instruction to Contractor or by change order.
 4. Record details not on original contract drawings.
- D. Specifications and addenda shall be legibly marked to record.
 1. Manufacturer, trade name, catalog number and supplier for each product and item of equipment actually installed.
 2. Changes made by instruction to Contractor or by change order.

AS-BUILT SUBMITTAL

- A. As condition precedent to payment progresses, Contractor shall deliver an as-built record to SCAQMD.

- B. Contractor shall accompany submittal with transmittal letter containing:
1. Date
 2. Project title and number
 3. Contractor's name and address
 4. Title and number of each record as-built
 5. Signature of Contractor or Contractor's authorized representative and a statement that certifies the as-built documents are accurate and reflect what was actually installed during the project.

CLOSE-OUT SUBMITTAL DELIVERY

- A. At contract closeout, Contractor shall deliver complete as-built records to SCAQMD.
1. This submittal shall include the record paper with (1) sepia or velum, (4) 30"x42" blue line copies, (1) compact disk (.pdf format), (1) compact disk (CAD Format).
- B. Contractor shall accompany submittal with transmittal letter containing:
1. Date
 2. Project title and number
 3. Contractor's name and address
 4. Title and number of each record as-built
 5. Signature of Contractor or Contractor's authorized representative and a statement that certifies that the as-built documents are accurate and reflect what was actually installed during the project.

FINAL OPERATION AND MAINTENANCE (O&M) MANUAL SUBMITTAL

- A. Preliminary O&M manuals shall be submitted prior to notice to proceed from SCAQMD.
- B. Technical submittals shall be separate from Contractor's submittal and shall be approved prior to submitting preliminary O&M manual.
- C. Contractor's submittal of O&M manuals shall be delivered directly to the Building Maintenance Manager.
- D. After approval of the submittals, the Contractor shall submit the required number of identical sets of O&M manuals as follows:
1. Preliminary O&M manuals: 3 copies
 2. Final O&M manuals: 4 copies
- E. Each set shall consist of one or more volumes, each of which shall be bound in an 8 ½" by 11", 3-ring, loose-leaf, vinyl plastic hard cover binder suitable for bookshelf storage.
1. Binder ring size shall not exceed 2.5".
 2. A table of contents shall be provided which indicates all equipment in the O&M manuals.
 3. Number of final copies of each set shall be submitted to SCAQMD for review.
- F. When specified in the individual equipment specification section, each item of equipment shall have a separate submittal and separate O&M manual for each specification section and the first two pages of the O&M manual for each item of equipment shall consist of a table of contents and a completed summary of pertinent data, entered on copies of the equipment maintenance summary sheet to be provided by the Contractor.

- G. Contractor shall include in the O&M manuals the following for each item of mechanical, electrical, plumbing equipment and instrumentation:
1. Complete operating instructions, including location of controls, special tools or other equipment required, related instrumentation, and other equipment needed for operation. Include equipment function, normal operating characteristics, and limiting conditions.
 2. Lubrication schedules, including the lubricant SAE grade and type, temperature range of the lubricants, and frequency of required lubrication.
 3. Preventative maintenance procedures and schedules.
 4. Assembly, installation, alignment, adjustment and checking instructions.
 5. Parts list by generic title, and identification number, complete with exploded views of each assembly. Include predicted life of spare parts subject to wear.
 6. Disassembly and assembly instructions.
 7. Operating instructions for start-up, routine and normal operation, regulation and control, shut down and emergency conditions.
 8. Recommended troubleshooting and start-up procedures.
 9. Test data and performance data where applicable.
 10. Reproducible prints of the as-built drawings, including diagrams and schematics on all equipment.
 11. A list of three manufacturers' local representatives where the owner can purchase parts or obtain maintenance assistance and repairs. Include name of contact, telephone number and address.
 12. Outline, cross section, and assembly drawings, engineering data and wiring diagrams.
- H. O&M manuals shall be in addition to any instructions or parts lists packed with or attached to the equipment when delivered or which may be required by Contractor.
1. Final manuals and other data shall be printed on heavy, highest quality paper, 8 ½" by 11" size, with standard 3-hole punching.
 2. Drawings and diagrams shall be reduced to 8 ½" by 11" or 11" by 17".
 - a. Where reduction is not practicable, larger drawings shall be folded separately and placed in envelopes which are bound into manuals.
 - b. Each envelope shall bear suitable identification on the outside.
 3. Preliminary O&M manuals shall be temporarily bound in heavy paper covers bearing suitable identification and be submitted as specified sufficiently in advance of the planned date of shipment of the equipment.
 4. Final O&M manuals and all parts lists and information shall be assembled in 8 ½" by 11", 3-ring, loose-leaf, vinyl plastic hard cover binder suitable for bookshelf storage. Binder ring size shall not exceed 2.5".
 - a. Material shall be assembled and bound in the same order as specified.
 - b. In addition to a master index for all volumes, each volume shall have a table of contents and suitable index tabs.
 5. All material shall be marked with project identification and inapplicable information shall be marked out or deleted.
 6. All volumes shall be indexed in accordance with the index of the specifications.

SPARE PARTS SUBMITTAL

- A. All spare parts shall be packaged separately in accordance with the specifications section with a separate and complete itemized list of spare parts for each spare part package.
- B. Contractor shall contact SCAQMD to meet and check the spare parts list against the spare parts received to ensure the parts meet the requirements of the specifications.
- C. If spare parts are missing, SCAQMD will make note on the transmittal form of what parts are missing. Contractor and SCAQMD staff members receiving the items will sign the parts list/invoice for spare parts received.
- D. Contractor shall use the signed parts list for preparation of the submittal which shall be transferred electronically to SCAQMD. If all parts were received, Contractor shall deliver a hard copy to the Building Maintenance Manager.
- E. If spare parts are missing, the same process will be followed to turn over the remainder of the spare parts for that specification section or piece of equipment, a resubmitted list of spare parts for that specification section or piece of equipment will be required for each occurrence until all of the spare parts are received.
- F. If any spare parts were delivered to the Building Maintenance Office, those parts shall be retrieved and turned over following the above procedure for turnover of spare parts.

OPERATION AND MAINTENANCE MANUALS

- A. Contractor shall provide O&M manuals for each piece of equipment and/or system.

CONTRACTOR'S WARRANTY AND GUARANTEE SUBMITTALS

- A. Contractor's warrants and guarantees SCAQMD that all work on the project shall be in accordance with the manufacturer's recommendations, RFP and contract documents and shall be free of defects. All extended new equipment warranties shall be an additional five years beyond the original equipment manufacturer's warranty period.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. Abuse, modification or improper maintenance or operation by persons other than Contractor, subcontractors suppliers or any other individual or entity for whom Contractor is responsible, or normal wear and tear under normal usage or operation.
- C. Contractor's obligation to perform and complete the project in accordance with the RFP and contract documents shall be absolute. None of the following shall constitute an acceptance of the project that is not in accordance with the RFP or contract documents or a release of the Contractor's obligation to perform the work for the project in accordance with the RFP and contract documents.
 - 1. Observation by SCAQMD or design consultant or their consultants.

2. Recommendation by SCAQMD or payment by SCAQMD of any progress or final payment.
 3. The issuance of a certificate of substantial completion by SCAQMD or any payment related thereto by SCAQMD.
 4. Use or occupancy of the project or any part thereof by SCAQMD.
 5. Any acceptance by SCAQMD or SCAQMD's Consultant and failure to do so.
 6. Any review and approval of shop drawings or sample submittal by Consultant or the issuance of a notice of acceptability by SCAQMD.
 7. Any test, inspection, or approval by others or correction of defective work by SCAQMD.
- D. CONTRACTOR shall:
1. Provide specified additional warranties from manufacturers and suppliers and submit as specified below.
- E. Assemble warranties and service and maintenance contracts, executed by each of the respective manufacturers, suppliers and subcontractors.
- F. Number of original signed copies required shall be four (4).
- G. Contractor's initial submittal of warranties and service and maintenance contract shall be delivered to the Building Maintenance Manager.
- H. Table of Contents: Neatly typed, orderly in sequence. Provide complete information for each item.
1. Product or work item
 2. Firm, with name of principal, address and telephone number.
 3. Scope
 4. Date of beginning of warranty and service maintenance contract.
 5. Duration of warranty or service maintenance contract.
 6. Provide information for owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances which might affect the validity of warranty.
 - c. Contractor, name of responsible principal address and telephone number.
- I. Format:
1. Size 8-1/2" by 11"
 2. Punch sheets for standard 3-hole ring binder.
 3. Fold larger sheets to fit into binder.
 4. Cover:
 - a. Identify each packet with typed "WARRANTIES".
 - b. List the following:
 - 1) Title of project
 - 2) Name of Contractor
- J. Binders: Commercial quality, white, 3-ring, shall be a 2.5" with durable and wipe able surface white.

CERTIFICATE OF FINAL COMPLETION

- A. When operational testing has been successfully completed, Contractor's Professional Engineer will certify the new equipment is fully operational and complete. SCAQMD will submit a punch list of known items still to be completed or corrected prior to contract completion.
- B. The punch list of items to be completed or corrected will be amended as items are resolved by Contractor.
- C. When all items have been completed or corrected, Contractor shall submit written documentation that the entire project is complete in accordance with the RFP and contract documents and request a final inspection.
- D. Upon completion of the entire project, SCAQMD will advise Contractor of work not complete. If necessary, inspection procedures will be repeated.

FINAL CLEANING

- A. Contractor shall:
 - 1. Perform final cleaning prior to inspections for final acceptance.
 - 2. Employ skilled workers who are experienced in cleaning operations.
 - 3. Use cleaning materials that are recommended by manufacturers of surfaces to be cleaned and approved by SCAQMD prior to use.
 - 4. Avoid scratching, discoloring and otherwise damaging surfaces being cleaned.
 - 5. Broom clean and power wash, if necessary, air handler rooms and all work areas.
 - 6. Remove dust, cobwebs and traces of insects and dirt.
 - 7. Clean grease, mastic, adhesives and other foreign materials from exposed surfaces, fixtures and equipment.
 - 8. Remove nonpermanent protection and labels.
 - 9. Clean ducts, blowers and coils when units were operated without filters during construction.

WASTE DISPOSAL

- A. Contractor shall:
 - 1. Arrange to recycle to the greatest extent possible the old equipment and surplus materials. Provide SCAQMD proof of recycling of old equipment identified above. Properly dispose of all waste products and debris.

ATTACHMENT B

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 hour's 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.

ATTACHMENT B

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- 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.

ATTACHMENT B

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

ATTACHMENT B

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 B

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 C

CERTIFICATIONS AND REPRESENTATIONS



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 Financial 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 9/15



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), minoritybusiness 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 *How to get a TIN* on page 3.

Social security number	
[] [] [] []	- [] [] [] [] [] []
or	
Employer identification number	
[] [] [] [] [] [] [] []	- [] [] [] [] [] [] [] []

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.

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 ▶ _____
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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 The actual owner ¹
5. Sole proprietorship or disregarded entity owned by an individual	The owner ³
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor ⁴
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 ⁴
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.

YEAR _____

2015 Withholding Exemption Certificate

The payee completes this form and submits it to the withholding agent.

Withholding Agent (Type or print)

Name _____

Payee

Name _____

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

City (If you have a foreign address, see instructions.) _____

Exemption Reason

Check only one reason box below that applies to the payee.

By checking the appropriate box below, the Payee certifies the reason for the exemption from the 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, 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. The corporation will file with the California Secretary of State (SOS) to do business in California. The corporation will file with the SOS if the corporation ceases to have a permanent place of business in California or ceases to do business in California. 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. The partnership or LLC will file with the California SOS, and is subject to the laws of California. The partnership or LLC will file with the SOS if the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For 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 17050.1(c) _____ (insert number). If this entity ceases to be tax-exempt, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.
- Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension 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, 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. The estate will file a California fiduciary tax return.
- Nonmilitary Spouse of a Military Servicemember:**

2015 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 information on California backup withholding, go to ftb.ca.gov and search for **backup withholding**.

Form 590 does not apply to payments for wages to employees. Wage withholding is administered by the California Employment Development Department (EDD). For more information, go to edd.ca.gov or call 888.745.3886.

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

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 certificate on the preprinted form, the withholding agent may accept as a substitute certificate a letter from the payee explaining why the payee is 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. The withholding agent must retain a copy of the certificate or substitute for at least four years after the last payment to which the certificate applies, and provide it upon request to the FTB.

For example, 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 non-wage 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 if it is a foreign corporation qualified to transact intrastate business by the CA SOS. 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 taxpayer identification number (TIN) and check the appropriate TIN box.

You must provide an acceptable 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 – Enter the information in the following order: City, Country, Province/Region, and Postal Code. Follow the country's practice for entering the postal code. **Do not** abbreviate the country's name.

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

Withholding Agent Instructions

Keep Form 590 for your records. **Do not** send this form to the FTB unless it has been specifically requested.

For more information, contact Withholding Services and Compliance, see Additional Information.

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

For additional information or to speak to a representative regarding this form, call the Withholding Services and Compliance telephone service at:

Telephone: **888.792.4900**
916.845.4900

Fax: 916.845.9512

OR write to:

WITHHOLDING SERVICES AND
COMPLIANCE MS F182
FRANCHISE TAX BOARD
PO BOX 942867
SACRAMENTO CA 94267-0651

You can download, view, and print California tax forms and publications at ftb.ca.gov.

OR to get forms by mail write to:

TAX FORMS REQUEST UNIT
FRANCHISE TAX BOARD
PO BOX 307
RANCHO CORDOVA CA 95741-0307

For all other questions unrelated to withholding 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 del habla



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

Direct Deposit Authorization

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 D
1 through 5
PAYMENT SCHEDULES**

ATTACHMENT D-1

PAYMENT SCHEDULE FOR AIR HANDLER #1

\$ _____ **Total Contract Amount Air Handler #1**

<p>A. Upon completion of the demolition of Air Handler #1, Contractor may submit an invoice for 10% of the Air Handler #1 contract amount. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$
<p>B. Upon delivery of the equipment and materials for Air Handler #1, Contractor may submit an invoice for 50% of the Air Handler #1 contract amount. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$
<p>C. Upon completion of Air Handler #1 startup, Contractor may submit an invoice for 20% of the Air Handler #1 contract amount. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$

A. Whenever in the opinion of the SCAQMD Building Supervisor, the Contractor shall have completely performed each progressive portion of the Contract on his part, the SCAQMD Building Supervisor shall notify the Building Maintenance Manager that the progressive amount has been completed in its entirety. Once the project is complete in its entirety, he shall request that the Building Maintenance Manager accept the work identified in this Contract is complete. The Contractor will then submit to the SCAQMD Building Supervisor for approval a written statement of the final quantities and completion of contract items for inclusion in the final invoice. Upon receipt of such statement, the SCAQMD Building Supervisor shall review the quantities and work included therein and shall authorize the Contractor to submit an invoice for the balance of the contract amount which in SCAQMD Building Supervisor's opinion shall be just and fair, covering the amount and value of the total amount of work done by the Contractor, less five percent (5%) of the total work done. Payment shall be made by SCAQMD to Contractor within thirty (30) days after approval by SCAQMD of an invoice prepared and furnished by Contractor showing services performed and referencing tasks and deliverables.

ATTACHMENT D-2

PAYMENT SCHEDULE FOR AIR HANDLER #2

\$ _____ **Total Contract Amount Air Handler #2**

<p>A. Upon completion of the demolition of Air Handler #2, Contractor may submit an invoice for 10% of the Air Handler #2 contract amount. Progress payment, upon approval of invoice, shall be net/30 as indicated below in <i>Section A</i>.</p>	\$
<p>B. Upon delivery of the equipment and materials for Air Handler #2, Contractor may submit an invoice for 50% of the Air Handler #2 contract amount. Progress payment, upon approval of invoice, shall be net/30 as indicated below in <i>Section A</i>.</p>	\$
<p>C. Upon completion of Air Handler #2 start up, Contractor may submit an invoice for 20% of the Air Handler #2 contract amount. Progress payment, upon approval of invoice, shall be net/30 as indicated below in <i>Section A</i>.</p>	\$

A. Whenever, in the opinion of the SCAQMD Building Supervisor, the Contractor shall have completely performed each progressive portion of the Contract on his part, the SCAQMD Building Supervisor shall notify the Building Maintenance Manager that the progressive amount has been completed in its entirety. Once the project is complete in its entirety, he shall request that the Building Maintenance Manager accept the work identified in this Contract is complete. The Contractor will then submit to the SCAQMD Building Supervisor for approval a written statement of the final quantities and completion of contract items for inclusion in the final invoice. Upon receipt of such statement, the SCAQMD Building Supervisor shall review the quantities and work included therein and shall authorize the Contractor to submit an invoice for the balance of the contract amount which in SCAQMD Building Supervisor's opinion shall be just and fair, covering the amount and value of the total amount of work done by the Contractor, less five percent (5%) of the total work done. Payment shall be made by SCAQMD to Contractor within thirty (30) days after approval by SCAQMD of an invoice prepared and furnished by Contractor showing services performed and referencing tasks and deliverables.

ATTACHMENT D-3

PAYMENT SCHEDULE FOR AIR HANDLER #10

\$ _____ **Total Contract Amount Air Handler #10**

<p>A. Upon completion of the demolition of Air Handler #10, Contractor may submit an invoice for 10% of the Air Handler #10 contract amount. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$
<p>B. Upon delivery of the equipment and materials for Air Handler #10, Contractor may submit an invoice for 50% of the Air Handler #10 contract amount. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$
<p>C. Upon completion of Air Handler #10 startup, Contractor may submit an invoice for 20% of the Air Handler #10 contract amount. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$

A. Whenever, in the opinion of the SCAQMD Building Supervisor, the Contractor shall have completely performed each progressive portion of the Contract on his part, the SCAQMD Building Supervisor shall notify the Building Maintenance Manager that the progressive amount has been completed in its entirety. Once the project is complete in its entirety, he shall request that the Building Maintenance Manager accept the work identified in this Contract as complete. The Contractor will then submit to the SCAQMD Building Supervisor for approval a written statement of the final quantities and completion of contract items for inclusion in the final invoice. Upon receipt of such statement, the SCAQMD Building Supervisor shall review the quantities and work included therein and shall authorize the Contractor to submit an invoice for the balance of the contract amount which in SCAQMD Building Supervisor opinion shall be just and fair, covering the amount and value of the total amount of work done by the Contractor, less five percent (5%) of the total work done. Payment shall be made by SCAQMD to Contractor within thirty (30) days after approval by SCAQMD of an invoice prepared and furnished by Contractor showing services performed and referencing tasks and deliverables.

ATTACHMENT D-4

PAYMENT SCHEDULE FOR AIR HANDLER #14

\$ _____ **Total Contract Amount Air Handler #14**

<p>A. Upon completion of the demolition of Air Handler #14, Contractor may submit an invoice for 10% of the Air Handler #14 contract amount. Contractor shall provide required conditional lien releases for demolition labor. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$
<p>B. Upon delivery of the equipment and materials for Air Handler #14, Contractor may submit an invoice for 50% of the Air Handler #14 contract amount. Contractor shall provide required conditional lien releases for equipment, materials and/or supplies. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$
<p>C. Upon completion of Air Handler #14 startup, Contractor may submit an invoice for 20% of the Air Handler #14 contract amount. Contractor shall provide required conditional lien releases for any additional labor, equipment, materials and/or supplies. Progress payment upon approval of invoice shall be net/30 as indicated below in <i>Section A.</i></p>	\$

A. Whenever, in the opinion of the SCAQMD Building Supervisor, the Contractor shall have completely performed each progressive portion of the Contract on his part, the SCAQMD Building Supervisor shall notify the Building Maintenance Manager that the progressive amount has been completed in its entirety. Once the project is complete in its entirety, he shall request that the Building Maintenance Manager accept the work identified in this Contract as complete. The Contractor will then submit to the SCAQMD Building Supervisor for approval a written statement of the final quantities and completion of contract items for inclusion in the final invoice. Upon receipt of such statement, the SCAQMD Building Supervisor shall review the quantities and work included therein and shall authorize the Contractor to submit an invoice for the balance of the contract amount which in SCAQMD Building Supervisor's opinion shall be just and fair, covering the amount and value of the total amount of work done by the Contractor, less five percent (5%) of the total work done. Payment shall be made by SCAQMD to Contractor within thirty (30) days after approval by SCAQMD of an invoice prepared and furnished by Contractor showing services performed and referencing tasks and deliverables.

ATTACHMENT D-5

PROJECT CLOSEOUT PAYMENT SCHEDULE

\$ _____ **Total Contract Amount**

<p>A. With final project approval from SCAQMD, completion of the closeout documents and all required unconditional lien releases, Contractor shall then submit an invoice for balance of the contract amount.</p>	
---	--

A. Whenever, in the opinion of the SCAQMD Building Supervisor, the Contractor shall have completely performed each progressive portion of the Contract on his part, the SCAQMD Building Supervisor shall notify the Building Maintenance Manager that the progressive amount has been completed in its entirety. Once the project is complete in its entirety, he shall request that the Building Maintenance Manager accept the work identified in this Contract as complete. The Contractor will then submit to the SCAQMD Building Supervisor for approval a written statement of the final quantities and completion of contract items for inclusion in the final invoice. Upon receipt of such statement, the SCAQMD Building Supervisor shall review the quantities and work included therein and shall authorize the Contractor to submit an invoice for the balance of the contract amount which, in SCAQMD Building Supervisor's opinion shall be just and fair, covering the amount and value of the total amount of work done by the Contractor, less five percent (5%) of the total work done. Payment shall be made by SCAQMD to Contractor within thirty (30) days after approval by SCAQMD of an invoice prepared and furnished by Contractor showing services performed and referencing tasks and deliverables.

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 10

PROPOSAL: Execute Contract for Website Evaluation and Improvement

SYNOPSIS: On May 1, 2015, the Board approved the release of an RFP to solicit proposals to evaluate SCAQMD's current website (www.aqmd.gov), make recommendations for improvement/enhancement and, upon approval, implement those improvements. Of the proposals received, three were deemed technically qualified. To aid in identifying the best contractor for the improvement effort, the Executive Officer approved execution of contracts for each qualified contractor to perform an evaluation of SCAQMD's website and report their findings back to the Administrative Committee for final selection. One of the three vendors withdrew from proceeding further. This action is to approve a contract with Xivic, Inc., the contractor recommended by the Administrative Committee; the cost will be determined based on approved recommendations and cost provided by the contractor as part of the contract, not to exceed amounts allocated for this project in the FY 2015-16 budget.

COMMITTEE: Special Administrative, June 17, 2015, Reviewed
Administrative, July 17 and September 11, 2015, Reviewed
Administrative, October 9, 2015; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute and amend a contract with Xivic, Inc., the contractor recommended by the Administrative Committee to make recommendations for improvement/enhancement of SCAQMD's current website based on the findings of the evaluation effort and, upon approval, implement those improvements; the cost will be determined based on approved recommendations and cost provided by the contractor as part of the contract, not to exceed amounts allocated for this project in the FY 2015-16 budget.

Barry R. Wallerstein, D.Env.
Executive Officer

Background

SCAQMD's Information Management division (IM) administers agency websites, both internal and external. SCAQMD's internet site, www.aqmd.gov, contains a wealth of information about SCAQMD programs, rules and regulations, permitting requirements, compliance and enforcement provisions, public notices, air quality data and analysis, air quality management plans, employment opportunities, and much more.

The current website was deployed May 28, 2014 following a major redesign effort. That effort included the implementation of a web content management system (Telerik Sitefinity) and a reorganization of website content. All content that was on the previous website is accessible from the current website. The redesign effort had several goals including: reorganize web content from the user's perspective; provide easy access to information for all users (including the regulated community, general public, other air quality agencies or environmental entities and internal staff); create an aesthetically pleasing website with an intuitively accessible navigation scheme to serve as a public communication tool; better support access from mobile devices; and provide adaptability for changing web technology.

The one-year anniversary of the launch of the redesigned website is a good moment to step back and reevaluate the website and its relationship with SCAQMD's mission. How is the website being used? Is critical information reaching target audiences? Are there issues not addressed or that could be better addressed in some way? Are there improvements that can be identified and implemented to enhance the website and its role as a public communication tool?

The objective of this evaluation and improvement effort is to obtain a detailed review of the website to determine if there are improvements or enhancements that can be made to maintain the website as a modern, 21st century communication tool. This project continues the effort to overhaul SCAQMD's information technology systems, which was identified as a priority project in the agency's FY 2015-16 goals and objectives.

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>).

Bid Evaluation

A total of 57 copies of the RFP were mailed out and six people, representing six firms, attended the bidders conference held on May 12, 2015. Questions regarding the RFP were received from an additional two firms and all questions and answers were posted on the Grants & Bids page of the SCAQMD website for all potential bidders. Four proposals were received in response to the RFP when final bidding closed at 5:00 p.m. on June 2, 2015. Of the four bids, two were from certified minority-owned business enterprises, one from a verified small business enterprise and three from local business enterprises.

The proposals were evaluated and scored by a five-member evaluation panel. The evaluation panel consisted of four SCAQMD staff members (a Technology Implementation Manager, a Systems & Programming Supervisor, a Senior Public Affairs Manager, and the SCAQMD's Web Editor) and one individual from outside SCAQMD (San Bernardino County Deputy Public Information Officer). The demographic make-up of the panel included three Caucasian and two Hispanic; three female and two male.

Of the four responding bids, three were rated technically qualified to perform the work identified in the RFP; one did not achieve the minimum 56 points (out of 70 possible) required to meet the technical criteria. Table 1 (attached) presents the final scores and total proposed costs for the three finalist firms. The three qualifying companies were scheduled to be interviewed by the Administrative Committee at a special Administrative Committee meeting held on June 17, 2015; however, in order to provide more relevant information to the Administrative Committee to make an informed decision, Dr. Wallerstein proposed limited contracts with each of the three qualified firms to perform Task 1 of the Statement of Work (Website Evaluation) and then report their findings back to the Administrative Committee for final selection. Of the three finalists, two accepted contracts for the Website Evaluation and presented their findings at the Administrative Committee meeting on September 11, 2015. Following their presentations, Dr. Wallerstein suggested it might be helpful for Committee Members to view the applicants' respective website portfolios online and then reschedule the item for the October 9, 2015 committee meeting. The members concurred.

Proposal

Staff proposes that the Board authorize the Chairman to execute a contract with Xivic, Inc., the contractor recommended by the Administrative Committee to complete the remaining tasks. The cost will be determined based on approved recommendations and cost provided by the contractor as part of the contract.

Benefits to SCAQMD

SCAQMD’s website represents the agency to the world, providing essential information to many communities within and outside of the Southland. The proposed project is intended to significantly improve SCAQMD’s outward-facing representation and strengthen outreach capabilities.

Resource Impacts

Sufficient funding will be available in Information Management’s FY 2015-16 Budget for this effort.

Attachment

Table 1: Evaluation Summary of Qualifying Bids

Table 1
 Evaluation Summary of Qualifying Bids
 RFP# 2015-25, Website Evaluation and Improvement

	360 Business Consultants	Onyx Concepts	Xivic, Inc.
Evaluation Score			
Technical Score	62	58	60
Cost Score ¹	13	0	30
Additional Points	10*	10*	10*
Total	85	68	100
Costs			
Task 1 – Website Review & Evaluation	\$ 8,700	\$ 15,300	\$ 7,500
Task 2 – Recommendations for Improvement	\$ 30,500	\$ 59,670	\$ 17,500
Task 3 – Implementation of Website Improvements	-- ²	\$ 63,660	\$ 1,100 ³
Total Labor Costs	\$ 39,200	\$138,630	\$ 26,100
Other Direct Costs identified (including travel)	--	\$ 20,000	\$ 309
Schedule	3-4 months	10-14 months	3-4 months

*Additional points awarded: 5 for Local Business
 5 for attendance at non-mandatory bidders' conference

¹ Cost score based on Task 1 and 2 only; Task 3 estimates listed below cannot be fully known until Tasks 1 and 2 are completed.

² Only labor rates were provided for Task 3, with a credit of 25% of the Task 1 and 2 costs (\$9,800) applied to the total cost of Task 3 implementation.

³ Cost of providing a cost estimate for the recommended improvements identified in Task 2.

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 11

PROPOSAL: Execute Contracts for Legislative Representation in Washington, D.C.

SYNOPSIS: At the July 10, 2015 meeting, the Board approved release of an RFP to solicit proposals for legislative representation in Washington, D.C. This action is to execute contracts with The Carmen Group, Inc., Kadesh & Associates, LLC, and Cassidy & Associates for the agency's legislative representation in Washington, D.C.

COMMITTEE: Legislative, October 9, 2015; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize the Chairman to execute contracts with The Carmen Group, Inc. for \$222,090, Kadesh & Associates, LLC for \$226,400, and Cassidy & Associates for \$216,000 for legislative consulting services in Washington, D.C. for one year beginning on January 15, 2016, with an option for up to two one-year term renewals, upon satisfactory performance, at the Board's discretion, and
2. Appropriate \$224,530 from the General Fund Undesignated (Unassigned) Fund Balance to the Legislative & Public Affairs FY 2015-16 Budget, Professional and Special Services Account.

Barry R. Wallenstein, D.Env.
Executive Officer

LBS:DJA:MC:RAR

Background

The current contracts for legislative representation in Washington, D.C. expire on January 14, 2016. Following Board approval on July 10, 2015, SCAQMD staff released RFP #P2016-03 to solicit proposals for legislative representation in Washington, D.C.

As one of the largest air quality regulatory agencies in the United States and a leader in air quality innovations, SCAQMD is an important contributor to national policymaking discussions relevant to air quality related issues. SCAQMD requires representation in

Washington, D.C. to ensure that the agency's input and policy priorities are conveyed in a timely and effective manner during the federal legislative and policy-setting process.

It is critical that SCAQMD be involved in policy development relating to federal air quality legislation, federal Clean Air Act implementation, subvention funding, special grants, and that all these issues and any other related matters are closely monitored. Therefore, it is appropriate to continue direct representation and advocacy of SCAQMD's policy positions on environmental issues in Washington, D.C.

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, the Riverside County Press Enterprise, and The Hill newspapers to leverage the most cost-effective method of outreach to qualified firms providing federal legislative representation services.

Additionally, in an effort to notify as many potential bidders as possible, approximately 100 RFP notification letters were mailed to lobbying and public affairs firms in the Washington, D.C. area. Notice of the RFP was also emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (<http://www.aqmd.gov>) where it can be viewed by making the selection "Grants & Bids."

Bid Evaluation

Nine proposals were received in response to the RFP. The proposals were evaluated and scored by a four-member evaluation panel (see Panel Composition section). Of the nine proposals evaluated, three were considered technically qualified and forwarded to the Legislative Committee for its consideration. The remaining six proposals were deemed to not be technically qualified. The attached matrix presents the scores and total proposal costs for the firms interviewed by the Legislative Committee.

Panel Composition

The evaluation panel consisted of two SCAQMD Deputy Executive Officers, one SCAQMD Program Supervisor, and one staff representative from San Bernardino County; one African-American, one Asian-American, one Caucasian, one Hispanic; one female and three male.

Committee Recommendations

After interviewing the three firms, and written materials submitted as part of the proposals, the Legislative Committee recommends to the Board the selection of all three firms: The Carmen Group, Inc., Kadesh & Associates, LLC, and Cassidy & Associates, based on the interview.

Resource Impacts

The total spending for these three contracts is \$664,530. Legislative & Public Affairs budget for FY 2015-16 contains insufficient funds for this purpose and additional funding is necessary in the amount of \$224,530 to cover the cost of these contracts. Therefore it is recommended that \$224,530 be appropriated from Undesignated Fund Balance to the Legislative & Public Affairs FY 2015-2016 Budget, Account 67450 – Professional & Special Services. Funding for two optional one-year extensions is contingent upon Board approval of the budget for the respective fiscal years.

Attachment

RFP #P2016-03 Scores and Costs Matrix

**RFP # P2016-03 SCORES AND COSTS MATRIX
FOR QUALIFYING FIRMS**

Firm Name	Technical Score	Additional Points	Cost Points	Total Points	Total Cost
The Carmen Group, Inc.	74.5	0	19.4	93.9	\$222,090.00/year
Cassidy & Associates	64.8	0	20.0	84.8	\$216,000.00/year
Kadesh & Associates	75.8	10*	19.0	104.8	\$226,440.00/year

*Small Business

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 12

PROPOSAL: Recognize Revenue and Amend Contract for Technical Advisor Services to Community Members of Exide Technologies Advisory Group

SYNOPSIS: Since April, the California Department of Toxic Substances Control (DTSC) and SCAQMD have worked cooperatively to establish a contract to secure the services of a technical advisor to assist community representatives of the Exide Technologies Advisory Group. A \$50,000 sole source contract was executed between SCAQMD and L. Everett, LLC under SCAQMD's Executive Officer's authority. This action is to recognize revenue from DTSC to SCAQMD in the amount of \$50,000, and to appropriate those funds to increase the contract amount to \$100,000.

COMMITTEE: Administrative, October 9, 2015; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize revenue of \$50,000 from DTSC and upon receipt appropriate \$50,000 into Legislative and Public Affairs Fiscal Year 2015-16 Professional and Special Services Budget; and,
2. Authorize the Chairman to amend the contract with L. Everett, LLC to add \$50,000, for a total amount not to exceed \$100,000.

Barry R. Wallerstein, D.Env.
Executive Officer

LBS:DJA:RAR:jf

Background

DTSC and SCAQMD are overseeing the closure of, and remediation of lead contamination associated with a battery recycling plant operated by Exide Technologies in the City of Vernon.

SCAQMD has also joined with DTSC to form the Exide Technologies Advisory Group (Advisory Group). The Advisory Group is co-chaired by DTSC, SCAQMD and a community representative; and its membership includes representatives of the affected communities, environmental justice organizations, academia, and state and local elected officials.

The purpose of this Advisory Group is to create a forum for diverse interests of the community to discuss the oversight of closure and cleanup work on and around the Exide facility. Committee meetings present opportunities for community interests to be considered early on by the oversight agencies, and keep the community informed about data, plans and work progress throughout the cleanup process.

Since April, DTSC and SCAQMD have worked cooperatively to establish a contract for a technical advisor to work with the affected communities through the Advisory Group. The technical advisor will assist community representative members of the Advisory Group on scientific and engineering matters related to the closure and remediation project.

The agencies and the Advisory Group have selected Dr. James T. Wells of L. Everett & Associates, LLC to serve as the technical advisor to the community representatives of the Advisory Group. Dr. James T. Wells is a recognized expert in environmental forensics specifically as it relates to the origin, cause, timing and evolution of subsurface contamination. Both SCAQMD and DTSC concur that Dr. Wells is an appropriate person to help the community members of the Advisory Group understand and provide informed interface on technical issues associated with the Exide closure and remediation project.

Proposal

This action is to recognize revenue in the amount of \$50,000 from DTSC as its cost share contribution and to increase the SCAQMD and L. Everett & Associates, LLC Contract (C16053) from \$50,000 to \$100,000. Under this contract, Dr. James T. Wells will inform the community members of the Advisory Group on the scientific and engineering matters related to closure and remediation actions related to the battery recycling plant operated by Exide Technologies in the City of Vernon.

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 when project funding does not come from federal monies. For the L. Everett, LLC contract, a sole source recommendation is made under provision B.2.d and on the basis that Dr. James T Wells is a recognized expert in environmental forensics specifically as it relates to the origin cause, timing and evolution of surface contamination and under provision B.2.d(1) projects involving cost-sharing by multiple sponsors.

Resources Impacts

This contract was initiated in the amount of \$50,000 with funding from the Legislative and Public Affairs FY 2015-16 budget. The increase in the contract amount will be funded by DTSC. The contract increase will therefore have no additional resources impact upon SCAQMD.

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 13

PROPOSAL: Amend Salary Resolution to Establish Five Step Salary Range for Health Effects Officer Classification

SYNOPSIS: To aid in the recruitment and selection for the Health Effects Officer position, staff is proposing to establish a five step salary range instead of a single designated annual salary listed in the Salary Resolution. There is an initial salary savings associated with this action should the position be filled at less than the single designated salary amount. Sufficient funding exists in the FY 2015-16 Budget to fill this position.

COMMITTEE: Personnel, October 28, 2015; Recommended for Approval

RECOMMENDED ACTION:

Amend the Salary Resolution to establish a five step salary range for the Health Effects Officer position.

Barry R. Wallerstein, D.Env.
Executive Officer

WJJ

Background

With the retirement of the Health Effects Officer in August 2015, this Designated Deputy classification was listed in the Salary Resolution with a single annual salary amount. As the recruitment process is ongoing and pending a selection of a suitable replacement for this critical position, staff is proposing to provide the Executive Officer with greater latitude in the consideration and placement of a wider range of qualified applicants with varying professional experience and educational backgrounds, by implementing a five (5) step salary range for the Health Effects Officer classification. Article 3, Section 12, Step Pay Plan, of the Salary Resolution provides general rules for classification covered by the Salary Resolution, such as the Health Effects Officer classification. Based on the customary five-step progression, the candidate selected for the Health Effects Officer position would be eligible for advancement to the next salary step upon completion of one (1) year of continuous service predicated on a rating of “Satisfactory” or better on an annual performance evaluation.

Proposal

This action is to amend the Salary Resolution to establish a five step salary range for the Health Effects Officer classification.

Resource Impacts

This action will likely result in potential cost saving should the Health Effects Officer position be filled at less than the annual salary amount listed in Chapter III, Article 7 of the Salary Resolution. Sufficient funding exists in the FY 2015-16 Budget to fill this position.

Attachments

Attachment A - Resolution

Attachment B – Changes to Salary Resolution, Chapter III, Article 7

ATTACHMENT A
RESOLUTION NO. 15-

A Resolution of the South Coast Air Quality Management District Governing Board to amend the *Salary Resolution* to implement a five step salary range for the Designated Deputy classification of Health Effects Officer.

WHEREAS, the Governing Board of the South Coast Air Quality Management District is authorized to establish levels of compensation for the SCAQMD employees, and finds it appropriate to implement a five step salary range for the Designated Deputy position of Health Effects Officer, to allow the Executive Officer greater latitude in the consideration of applicants for the position.

THEREFORE, BE IT RESOLVED that the Board of the South Coast Air Quality Management District, in a regular session assembled November 6, 2015, in Diamond Bar, California, does hereby amend SCAQMD's *Salary Resolution* to provide for a five step salary range for the Designated Deputy position of Health Effects Officer.

AYES:

NOES:

ABSTAIN:

ABSENT:

Date

Sandra McDaniel, Clerk of the Board

ATTACHMENT B

SOUTH COAST

AIR QUALITY MANAGEMENT DISTRICT

SALARY RESOLUTION

~~December 5, 2014~~

November 6, 2015

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	<u>\$122,355</u> - \$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	<u>\$124,190</u> - \$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 Financial Officer	\$171,651
Director of Strategic Initiatives	\$153,218
Health Effects Officer	<u>\$126,053</u> - \$153,218
Intergovernmental Affairs Officer	Vacant
Senior Policy Advisor	\$156,196



[↑ Back to Agenda](#)

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 14

PROPOSAL: Approve Contract Awards and Modification Approved by MSRC

SYNOPSIS: As part of their FYs 2014-16 AB 2766 Discretionary Fund Work Program, the MSRC approved 37 new contracts under the Local Government Program, and a contract modification providing additional funds for programmatic outreach services. At this time the MSRC seeks Board approval of the contract awards and modification.

COMMITTEE: Mobile Source Air Pollution Reduction Review, October 15, 2015;
Recommended for Approval

RECOMMENDED ACTIONS:

1. Approve the award of 37 contracts totaling \$7,218,013 under the Local Government Match Program (using \$5,201,697 of the funds originally allocated plus an additional \$2,016,316 previously unallocated), as part of approval of the FYs 2014-16 AB 2766 Discretionary Fund Work Program, as described in this letter and as follows:
 - a. A contract with the City of South Pasadena in an amount not to exceed \$30,000 to purchase one heavy-duty natural gas vehicle;
 - b. A contract with the City of Anaheim in an amount not to exceed \$275,000 to modify their existing maintenance facility to accommodate the maintenance of gaseous-fueled vehicles;
 - c. A contract with the City of El Monte in an amount not to exceed \$20,160 to install EV charging infrastructure;
 - d. A contract with the City of Fontana in an amount not to exceed \$500,000 to enhance an existing Class 1 Bikeway;
 - e. A contract with the City of Placentia in an amount not to exceed \$90,000 to install a bicycle locker and EV charging infrastructure;
 - f. A contract with the City of Buena Park in an amount not to exceed \$429,262 to install a Class 1 Bikeway;
 - g. A contract with the City of Westminster in an amount not to exceed \$115,000 to install EV charging infrastructure;

- h. A contract with the City of South Pasadena in an amount not to exceed \$320,000 to implement an “Open Streets” event in partnership with the Cities of San Marino, Arcadia, Monrovia, Duarte, Irwindale and Azusa;
- i. A contract with the City of Rancho Cucamonga in an amount not to exceed \$315,576 to install two Class 1 Bikeways;
- j. A contract with the City of Claremont in an amount not to exceed \$498,750 to implement a “Complete Streets” pedestrian access project, contingent upon pre- and post-project collection of vehicle and pedestrian counts;
- k. A contract with the City of Yucaipa in an amount not to exceed \$120,000 to implement a “Complete Streets” pedestrian access project on Yucaipa Boulevard, contingent upon pre- and post-project collection of vehicle and pedestrian counts;
- l. A contract with the City of Ontario in an amount not to exceed \$270,000 to purchase up to nine heavy-duty natural gas vehicles;
- m. A contract with the City of Ontario in an amount not to exceed \$150,000 to expand an existing CNG station;
- n. A contract with the City of Yucaipa in an amount not to exceed \$380,000 to implement a “Complete Streets” pedestrian access project on County Line Road, contingent upon pre- and post-project collection of vehicle and pedestrian counts;
- o. A contract with the County of Los Angeles in an amount not to exceed \$491,898 for the purchase of up to 15 heavy-duty natural gas vehicles and to install EV charging infrastructure;
- p. A contract with the City of Burbank in an amount not to exceed \$180,000 for the purchase of up to 6 heavy-duty natural gas vehicles;
- q. A contract with the City of Cudahy in an amount not to exceed \$73,910 to implement an “Open Streets” event;
- r. A contract with the City of Murrieta in an amount not to exceed \$11,642 to install EV charging infrastructure;
- s. A contract with the City of Colton in an amount not to exceed \$25,000 to install EV charging infrastructure;
- t. A contract with the City of Glendora in an amount not to exceed \$30,000 to purchase one heavy-duty natural gas vehicle;
- u. A contract with the County of Orange in an amount not to exceed \$204,073 to implement “Open Streets” events in partnership with the Cities of Brea, Fullerton, Garden Grove, and Westminster;
- v. A contract with the City of Temple City in an amount not to exceed \$500,000 to implement a “Complete Streets” pedestrian access project, contingent upon pre- and post-project collection of vehicle and pedestrian counts;
- w. A contract with the City of Long Beach in an amount not to exceed \$75,050 to implement an “Open Streets” event on Artesia Boulevard;
- x. A contract with the City of South El Monte in an amount not to exceed \$73,329 to implement an “Open Streets” event;

- y. A contract with the County of Riverside in an amount not to exceed \$171,648 to implement “Open Streets” events in partnership with the Cities of Palm Desert and Riverside;
 - z. A contract with the City of West Covina in an amount not to exceed \$54,199 to install EV charging infrastructure;
 - aa. A contract with the City of Beverly Hills in an amount not to exceed \$90,000 to purchase up to 3 heavy-duty natural gas vehicles;
 - bb. A contract with the City of Highland in an amount not to exceed \$264,500 to implement a “Complete Streets” pedestrian access project on Boulder Avenue, contingent upon pre- and post-project collection of vehicle and pedestrian counts;
 - cc. A contract with the City of Palm Desert in an amount not to exceed \$56,000 to install EV charging infrastructure;
 - dd. A contract with the City of Long Beach in an amount not to exceed \$50,000 to implement an “Open Streets” event in the City’s downtown area;
 - ee. A contract with the City of La Verne in an amount not to exceed \$365,000 to install a CNG fueling station;
 - ff. A contract with the City of San Fernando in an amount not to exceed \$354,000 to install a Class 1 Bikeway;
 - gg. A contract with the City of San Fernando in an amount not to exceed \$100,000 to install EV charging infrastructure;
 - hh. A contract with the City of El Monte in an amount not to exceed \$33,000 to install EV charging infrastructure;
 - ii. A contract with City of Rialto in an amount not to exceed \$463,216 to implement pedestrian access improvements, installation of bicycle lanes, purchase of bicycle sharing hardware, and conduct bicycle-related outreach;
 - jj. A contract with the City of Moreno Valley in an amount not to exceed \$32,800 to install bicycle lanes, racks and safety enhancements; and
 - kk. A contract with the City of Yucaipa in an amount not to exceed \$5,000 to purchase a zero-emission electric riding lawnmower;
2. Approve an augmentation of an award in an amount not to exceed \$1,935 to the Better World Group for programmatic outreach services to the MSRC for a two-year period, as part of approval of the FYs 2014-16 AB 2766 Discretionary Fund Work Program, as described in this letter;
 3. Authorize MSRC the authority to adjust contract awards up to five percent, as necessary and previously granted in prior work programs; and
 4. Authorize the Chairman of the Board to execute new contracts under FYs 2014-16 Work Program, as described above and in this letter.

Greg Pettis,
Chair, MSRC

MM:HH: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 November 2014, the MSRC selected initial categories for the FYs 2014-16 Work Program. Additional project categories continued to be developed and were brought forward for MSRC consideration in subsequent months. At its October 15, 2015 meeting, the MSRC considered recommended awards under the Local Government Match Program. To address a cost quote which was incorrectly identified at the time of original consideration, the MSRC also considered a recommendation to augment their prior award for programmatic outreach services under the FYs 2014-16 Work 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 Match Program Announcement were 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. In addition, the Program Announcement was advertised in the Desert Sun newspaper for expanded outreach in the Coachella Valley.

Additionally, potential bidders may have been notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the solicitation was emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's Website (<http://www.aqmd.gov>). Further, the solicitation was posted on the MSRC's website at <http://www.cleantransportationfunding.org> and electronic notifications were sent to those subscribing to this website's notification service.

Proposals

At its October 15, 2015 meeting, the MSRC considered recommendations from its MSRC-TAC and approved the following:

Local Government Match Program

As an element of the FYs 2014-16 Work Program, the MSRC allocated \$13,000,000 for the Local Government Match Program. A Program Announcement was developed and released on May 1, 2015. As in the previous Work Program, the Local Government Match Program offers to co-fund qualifying medium- and heavy-duty alternative fuel vehicles, alternative fuel infrastructure projects, electric vehicle charging infrastructure, and regional street sweeping in the Coachella Valley. The bicycle projects category was

expanded to include “active transportation” projects, and commercial zero emission riding lawnmowers was added as a new category. In all categories, funding is provided on a dollar-for-dollar match basis, and funding for all eligible entities shall be distributed on a first-come, first-served basis with a geographic minimum per county of \$1.625 million. The Program Announcement included an open application period commencing June 2, 2015 and closing September 4, 2015. To date, the MSRC has awarded a total of \$7,696,153 to 36 applications. Subsequent to these awards, it has been determined that a portion of one of the previously approved applications, from the City of South Pasadena, was not included during initial funding consideration. The City was previously awarded \$180,535 to purchase one heavy-duty natural gas vehicle and expand their existing CNG fueling station; the MSRC considered and approved the remainder of the City’s application, requesting an additional \$30,000 for the purchase of a second heavy-duty natural gas vehicle. The MSRC also approved 36 additional applications, for a total of 37 awards totaling \$7,218,013 (using \$5,201,697 of the funds originally allocated plus an additional \$2,016,316 previously unallocated) as part of the FYs 2014-16 AB 2766 Discretionary Fund Work Program, as follows:

- a. A contract with the City of South Pasadena in an amount not to exceed \$30,000 to purchase one heavy-duty natural gas vehicle;
- b. A contract with the City of Anaheim in an amount not to exceed \$275,000 to modify their existing maintenance facility to accommodate the maintenance of gaseous-fueled vehicles;
- c. A contract with the City of El Monte in an amount not to exceed \$20,160 to install EV charging infrastructure;
- d. A contract with the City of Fontana in an amount not to exceed \$500,000 to enhance an existing Class 1 Bikeway;
- e. A contract with the City of Placentia in an amount not to exceed \$90,000 to install a bicycle locker and EV charging infrastructure;
- f. A contract with the City of Buena Park in an amount not to exceed \$429,262 to install a Class 1 Bikeway;
- g. A contract with the City of Westminster in an amount not to exceed \$115,000 to install EV charging infrastructure;
- h. A contract with the City of South Pasadena in an amount not to exceed \$320,000 to implement an “Open Streets” event in partnership with the Cities of San Marino, Arcadia, Monrovia, Duarte, Irwindale and Azusa;
- i. A contract with the City of Rancho Cucamonga in an amount not to exceed \$315,576 to install two Class 1 Bikeways;
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- l. A contract with the City of Ontario in an amount not to exceed \$270,000 to purchase up to nine heavy-duty natural gas vehicles;
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- o. A contract with the County of Los Angeles in an amount not to exceed \$491,898 for the purchase of up to 15 heavy-duty natural gas vehicles and to install EV charging infrastructure;
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- q. A contract with the City of Cudahy in an amount not to exceed \$73,910 to implement an “Open Streets” event;
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- u. A contract with the County of Orange in an amount not to exceed \$204,073 to implement “Open Streets” events in partnership with the Cities of Brea, Fullerton, Garden Grove, and Westminster;
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- w. A contract with the City of Long Beach in an amount not to exceed \$75,050 to implement an “Open Streets” event on Artesia Boulevard;
- x. A contract with the City of South El Monte in an amount not to exceed \$73,329 to implement an “Open Streets” event within the City;
- y. A contract with the County of Riverside in an amount not to exceed \$171,648 to implement “Open Streets” events in partnership with the Cities of Palm Desert and Riverside;
- z. A contract with the City of West Covina in an amount not to exceed \$54,199 to install EV charging infrastructure;
- aa. A contract with the City of Beverly Hills in an amount not to exceed \$90,000 to purchase up to 3 heavy-duty natural gas vehicles;
- bb. A contract with the City of Highland in an amount not to exceed \$264,500 to implement a “Complete Streets” pedestrian access project on Boulder Avenue, contingent upon pre- and post-project collection of vehicle and pedestrian counts;
- cc. A contract with the City of Palm Desert in an amount not to exceed \$56,000 to install EV charging infrastructure;
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- ii. A contract with City of Rialto in an amount not to exceed \$463,216 to implement pedestrian access improvements, installation of bicycle lanes, purchase of bicycle sharing hardware, and conduct bicycle-related outreach;
- jj. A contract with the City of Moreno Valley in an amount not to exceed \$32,800 to install bicycle lanes, racks and safety enhancements; and
- kk. A contract with the City of Yucaipa in an amount not to exceed \$5,000 to purchase a zero-emission electric riding lawnmower.

Programmatic Outreach Services

On September 4, 2015, the SCAQMD Board approved an award to the Better World Group as part of the MSRC's FYs 2014-16 Work Program, in an amount not to exceed \$118,065, to provide programmatic outreach services for the MSRC. Subsequent to the approval, staff discovered that the total cost quote had been inaccurately described to both the MSRC and SCAQMD. The \$118,065 figure was actually the total for labor costs only, and did not include \$1,935 which the Better World Group had quoted for expenses. The MSRC approved a \$1,935 increase in the award amount to correct the contract value to \$120,000.

At this time, the MSRC requests the SCAQMD Board to approve the contract awards and modification as part of approval of the FYs 2014-16 AB 2766 Discretionary Fund Work Program 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.



BOARD MEETING DATE: November 6, 2015

AGENDA NO. 15

REPORT: Establish Board Meeting Schedule for Calendar Year 2016

SYNOPSIS: The proposed Board Meeting Schedule for Calendar Year 2016 (includes January 2017) is submitted for Board consideration. The Administrative Committee meeting schedule (second Friday of the month) is included for information only.

COMMITTEE: Administrative, October 9, 2015; Recommended for Approval

RECOMMENDED ACTION:
Adopt the 2016 Board Meeting Schedule.

Dr. William A. Burke, Chair
Administrative Committee

nv

Calendar Year 2016 Board Meeting Schedule
with CY 2016 Administrative Committee meetings

<u>MONTH</u>	<u>DATE</u>	<u>TIME</u>	<u>ASSOCIATED ADMIN CMTE MEETING</u>
January:.....	January 8*	9:00 a.m. - end.....	December 11, 2015
February:.....	February 5	9:00 a.m. - end.....	January 15, 2016
March:.....	March 4	9:00 a.m. - end.....	February 12, 2016
April:.....	April 1	9:00 a.m. - end.....	March 11, 2016
May:.....	May 6	9:00 a.m. - end.....	April 8, 2016
June:.....	June 3	9:00 a.m. - end.....	May 13, 2016
July:	July 8*.....	9:00 a.m. - end.....	June 10, 2016
September:	September 2	9:00 a.m. - end.....	July 15, 2016
October:	October 7	9:00 a.m. - end.....	September 9, 2016
November:	November 4.....	9:00 a.m. - end.....	October 14, 2016
December:.....	December 2	9:00 a.m. - end.....	November 10, 2016*
January 2017	January 6, 2017...	9:00 a.m. - end	December 9, 2016

* The January and July Board meetings have been moved to accommodate the holidays (New Year's Day on Friday, January 1 and Independence Day on Monday, July 4) , which has moved the Administrative Committee meeting to the third Friday of the month. The November Administrative Committee has moved to Thursday to accommodate the Veteran's Day holiday. Also, there is no meeting scheduled in August.

Attachment
Resolution

RESOLUTION NO. 15-_____

A Resolution of the South Coast Air Quality Management Governing Board setting the time and place of regular meetings.

WHEREAS, the regular meetings of the South Coast Air Quality Management Governing Board have been established by Resolution in the past, and

WHEREAS, the Governing Board is establishing the regularly scheduled meetings for Calendar Year 2016.

NOW, THEREFORE, BE IT RESOLVED that, effective January 2016, the regular meetings of the Governing Board shall be held at 9:00 a.m. on the first Friday of each month, except for January and July to accommodate holidays and August where there is no meeting scheduled, in the Auditorium at SCAQMD Headquarters, 21865 Copley Dr., Diamond Bar, California.

AYES:

NOES:

ABSTAIN:

ABSENT:

Dated:_____

Saundra McDaniel, Clerk of the Board

[↑ Back to Agenda](#)

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 16

PROPOSAL: Public Posting of Board's Amendments to Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities

SYNOPSIS: On October 2, 2015, the Board adopted Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities. Before adopting the proposed rule, the Board made four amendments to the staff proposal. This item is to provide in writing the amendments made by the Board.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:

Receive and file the amendments made by the Board at the October 2, 2015 Board meeting to Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities (see Exhibit A).

Barry R. Wallerstein, D.Env.
Executive Officer

KRW:BB:ML

Background

On October 2, 2015, the Board adopted Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities. The rule is intended to protect public health from exposure to lead and helps to ensure and maintain attainment of the lead NAAQS. The rule establishes an initial ambient air lead concentration limit of 0.150 µg/m³ averaged over any consecutive 30 days, which will be lowered to a final limit of 0.100 µg/m³ by 2018. The rule also establishes requirements for enclosures, point source lead emission limits, source testing, ambient air monitoring, housekeeping and maintenance activities, and submittal and implementation of a Compliance Plan if a metal melting facility exceeds ambient air lead concentration limits set forth in the rule.

The Board adopted the proposed rule with the following four amendments:

1. Add a definition for the term “primary cause” as it is defined in the staff report. The staff report defines “primary cause” as “the most significant contributor to a lead exceedance at a monitor.” The proposed version of the rule did not have a definition for that term. (Rule 1420.2(c)(18), p. 3)
2. Provide a metal melting facility owner or operator fourteen (14) days to submit information to the Executive Officer demonstrating that the primary cause of the exceedance is not attributed to its metal melting facility. The proposed version of the rule had only provided the metal melting facility owner or operator with five (5) business days to submit information to the Executive Officer. (Rule 1420.2(d)(4), p. 5)
3. Require the owner or operator of a metal melting facility to wet scrub or vacuum sweep all facility areas paved with concrete or asphalt subject to vehicular traffic at least twice per week unless specified otherwise. The proposed version of the rule had required such wet scrubbing and vacuuming once per operating shift with each event not less than four hours apart. (Rule 1420.2(h)(7)(A), p. 16)
4. Provide that if the owner or operator of a metal melting facility would like to use an alternative housekeeping measure, they may implement the alternative housekeeping measure unless the Executive Officer informs the owner or operator, within seven days of the owner or operator’s notification, that the alternative housekeeping measure does not meet the objective and/or effectiveness criteria specified in Appendix 3. The proposed version of the rule had required the owner or operator to get Executive Officer approval prior to implementing an alternative housekeeping measure. (Rule 1420.2(h)(10), p. 17)

Resource Impacts

None.

Attachment

Exhibit A - Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities (Adopted October 2, 2015)

EXHIBIT A

(Adopted October 2, 2015)

RULE 1420.2 EMISSION STANDARDS FOR LEAD FROM METAL MELTING FACILITIES

(a) Purpose

The purpose of this rule is to protect public health by reducing emissions and ambient air concentrations of lead from metal melting facilities, reduce public health impacts by reducing the exposure to lead, and to help ensure attainment and maintenance of the National Ambient Air Quality Standard for Lead.

(b) Applicability

This rule applies to all persons who own or operate a metal melting facility that melts 100 tons or more of lead a year based on any of the five calendar years prior to October 2, 2015, or any year thereafter. Applicability shall be based on facility lead processing records required under subdivision (k) of this rule and subdivision (i) of Rule 1420 – Emissions Standards for Lead.

(c) Definitions

For the purposes of this rule, the following definitions shall apply:

- (1) AMBIENT AIR means outdoor air.
- (2) CASTING means the formation of metallic parts or casts by pouring melted metal into a mold and core assembly or into a mold for ingots, sows, or cylinders.
- (3) CONSTRUCTION OR MAINTENANCE ACTIVITY means any of the following activities conducted outside of a total enclosure with negative air that generates or has the potential to generate fugitive lead-dust:
 - (A) building construction or demolition, the altering of a building or permanent structure, or the removal of one or more of its components;
 - (B) replacement or repair of refractory, filter bags, or any internal or external part of equipment used to process, handle, or control lead-containing materials;
 - (C) replacement of any duct section used to convey lead-containing exhaust;
 - (D) metal cutting or welding that penetrates the metal structure of any equipment, and its associated components, used to process lead-containing material, such that lead dust within the internal structure or its components can become fugitive lead-dust;

- (E) resurfacing, grading, repairing, or removing ground, pavement, concrete, or asphalt; or
 - (F) soil disturbances, including but not limited to, soil sampling and soil remediation, or activities where soil is moved, removed, and/or stored.
- (4) DUCT SECTION means a length of duct including angles and bends which is contiguous between two or more process devices (e.g., between a furnace and heat exchanger; baghouse and scrubber; scrubber and stack; etc.).
 - (5) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
 - (6) EMISSION COLLECTION SYSTEM means any equipment installed for the purpose of directing, taking in, confining, and conveying an air contaminant, and which at minimum conforms to design and operation specifications given in the most current edition of *Industrial Ventilation, Guidelines and Recommended Practices*, published by the American Conference of Governmental Industrial Hygienists, at the time a complete permit application is filed with the District.
 - (7) EMISSION CONTROL DEVICE means any equipment installed in the ventilation system of a lead point source or emission collection system for the purposes of collecting and reducing emissions of lead.
 - (8) FUGITIVE LEAD-DUST means any solid particulate matter containing lead that is in contact with ambient air and has the potential to become airborne.
 - (9) FURNACE means a device used to melt metal including, but not limited to, cupola, electric arc, pot, induction, blast, crucible, sweat, and reverberatory furnaces.
 - (10) FURNACE, REFINING, OR CASTING AREA means any area of a metal melting facility in which:
 - (A) Melting furnaces are located;
 - (B) Refining operations occur; or
 - (C) Casting operations occur.
 - (11) LEAD means elemental lead, lead compounds calculated as elemental lead, and elemental lead found in alloys.
 - (12) LEAD POINT SOURCE means any process, equipment, or total enclosure used at a metal melting facility, including, but not limited to, furnaces, tapping ports, or refining kettles, whose lead emissions pass through a stack or vent designed to direct or control the exhaust flow prior to release into the ambient air.

- (13) LEEWARD WALL means the furthest exterior wall of a total enclosure that is opposite the windward wall.
- (14) MEASURABLE PRECIPITATION means any on-site measured rain amount greater than 0.01 inches in any complete 24-hour calendar day (i.e., midnight to midnight).
- (15) METAL means ferrous (iron-based) metals and alloys and non-ferrous (non-iron-based) metals and alloys. Examples of metals include, but are not limited to, iron, steel, and their iron-based alloys; aluminum, copper, brass, bronze, gold, silver, zinc, tin, lead, platinum, nickel, chromium, cadmium, manganese, mercury, tungsten, and titanium and their non-ferrous alloys.
- (16) METAL MELTING FACILITY means any facility that operates a furnace in which scrap metal, ingots, and/or other forms of metals are charged and melted, with the melted metal tapped or poured into a ladle or directly into a mold or other shape forming receptacle.
- (17) PARTIAL ENCLOSURE means a structure comprised of walls or partitions on at least three sides or three-quarters of the perimeter that surrounds areas where a construction or maintenance activity is conducted, in order to prevent the generation of fugitive lead-dust.
- (18) PRIMARY CAUSE means the most significant contributor to a lead exceedance at a monitor.
- (19) PROCESS means using lead or lead-containing materials in any operation including, but not limited to, the charging of lead-containing materials to melting furnaces, lead refining operations, and casting operations.
- (18)
- (19) SLAG means the inorganic material by-product discharged, in melted state, from a smelting furnace that has a lower specific gravity than lead metal and contains lead compounds. This shall include, but is not limited to, lead sulfate, lead sulfide, lead oxides, and lead carbonate consisting of other constituents charged to a smelting furnace, which are fused together during the pyrometallurgical process.
- (20)
- (21) SMELTING means the chemical reduction of lead compounds to elemental lead or lead alloys through processing in temperatures greater than 980° C.
- (21) SMELTING FURNACE means any furnace where smelting takes place including, but not limited to, blast furnaces, reverberatory furnaces, rotary furnaces, and electric furnaces.
- (22)

- (22) TOTAL ENCLOSURE means a permanent containment building/structure, completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-off), with limited openings to allow access and egress for people and vehicles, that is free of cracks, gaps, corrosion, or other deterioration that could cause or result in fugitive lead-dust.
- (23) VALID 24-HOUR SAMPLE means a sample in which the sampling run-time was no less than 23 hours and no greater than 25 hours, with the sample collection conducted using Title 40, CFR 50 Appendix B - *Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method)*, or U.S. EPA-approved equivalent methods.
- (24) WINDWARD WALL means the exterior wall of a total enclosure which is most impacted by the wind in its most prevailing direction determined by a wind rose using data required under paragraph (e)(9) of this rule, or other data approved by the Executive Officer.

(d) Ambient Air Lead Concentration Limit

- (1) The owner or operator of a metal melting facility shall not discharge emissions into the atmosphere which contribute to ambient air concentrations of lead that exceed the following:

Effective Date	Ambient Air Concentration of Lead, (µg/m ³) averaged over any 30 consecutive days
Beginning October 2, 2015 – March 31, 2018	0.150
On or After April 1, 2018	0.100

- (2) For facilities that do not have approved ambient air monitoring and sampling sites by the Executive Officer by October 2, 2015, the ambient air lead concentration limit of 0.150 µg/m³ averaged over any 30 consecutive days shall be met beginning 90 days from approval of the Ambient Air Monitoring and Sampling Plan pursuant to paragraph (e)(2).
- (3) An exceedance of the ambient air concentrations of lead specified in the above table shall occur if it is measured by any monitor installed pursuant to subdivision (e), by any District-installed monitor collocated with a monitor installed pursuant to subdivision (e), or by any District-installed monitor located beyond the

property line of a metal melting facility that measures lead concentrations resulting from the facility.

- (4) In the event that a metal melting facility exceeds the applicable ambient lead concentration limit specified in paragraph (d)(1), the owner or operator may provide information to the Executive Officer to substantiate its position that the primary cause of the exceedance is not attributed to its metal melting facility. In the event the owner or operator exercises this opportunity to demonstrate that the primary cause of the exceedance is not attributed to its metal melting facility, the owner or operator shall submit the following information to the Executive Officer within ~~five business~~ fourteen days of when the owner or operator of the metal melting facility knew or should have known that the ambient lead concentration exceeded the applicable limit specified in paragraph (d)(1):
 - (A) Date and time of the exceedance;
 - (B) Location of the monitor where exceedance was measured;
 - (C) Monitored ambient lead concentration levels at all of the facility's monitors for the prior 30 days, including the date of the exceedance;
 - (D) Wind direction(s) during the timeframe of the exceedance;
 - (E) Description of the alleged primary cause(s) and source(s) of the exceedance including timeframe and location; and
 - (F) Evidence demonstrating that the primary cause(s) of the exceedance is not attributed to the facility's operations such as other monitored data, photographs, and video.
 - (5) The Executive Officer shall consider the information submitted under paragraph (d)(4) and notify the owner or operator of the determination in writing. If the Executive Officer determines that the primary cause(s) of the exceedance is not attributed to the metal melting facility, that exceedance will not be considered a violation of the applicable ambient lead concentration limit per subdivision (d) nor an exceedance requiring submittal or implementation of a Compliance Plan per subdivision (m).
- (e) Ambient Air Monitoring Requirements
- (1) No later than March 1, 2016, the owner or operator of a metal melting facility shall submit a Lead Ambient Air Monitoring and Sampling Plan for review and approval by the Executive Officer, subject to plan fees as specified in District

Rule 306 – Plan Fees, that includes information specified in subparagraphs (e)(1)(A) through (e)(1)(C):

- (A) Source test results of all lead point sources conducted pursuant to subdivision (j).
 - (B) Map of the facility identifying the location of all lead emission sources, air pollution control devices, stacks, enclosures, openings of enclosures, storage of lead containing materials, roadways where vehicles carrying lead containing materials travel within the facility, vehicle egress and ingress locations, the property line of the facility, the fence line of the facility if it differs from the property line of the facility, and any areas within the property line of the facility that are publicly accessible.
 - (C) Number and locations for sampling sites that meet the requirements of paragraph (e)(2).
 - (D) The Executive Officer shall notify the owner or operator in writing whether the Lead Ambient Air Monitoring and Sampling Plan is approved or disapproved.
 - (i) Determination of approval status shall be based on, at a minimum, submittal of information that satisfies the criteria set forth in subparagraphs (e)(1)(A) through (e)(1)(C).
 - (ii) If the Lead Ambient Air Monitoring and Sampling Plan is disapproved, the owner or operator shall resubmit the plan, subject to plan fees specified in Rule 306, within 30 calendar days after notification of disapproval of the plan. The resubmitted plan shall include any information necessary to address deficiencies identified in the disapproval letter. It is a violation of the rule for a facility not to have an approved Lead Ambient Air Monitoring and Sampling Plan after the second denial.
 - (iii) If the resubmitted plan is denied, the owner or operator may appeal the denial by the Executive Officer to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans.
- (2) No later than 90 days after approval of a Lead Ambient Air Monitoring and Sampling Plan, the owner or operator of a metal melting facility shall install and conduct ambient air lead monitoring and sampling as follows:
- (A) Collect samples from a minimum of three sampling sites. Locations for sampling sites shall be approved by the Executive Officer.

- (B) Locations for sampling sites shall be based on maximum expected ground level lead concentrations, at or beyond the property line, as determined by Executive Officer-approved air dispersion modeling calculations and emission estimates from all lead point sources and fugitive lead-dust sources, and other factors including, but not limited to, population exposure and seasonal meteorology.
 - (C) The Executive Officer may require one or more of the sampling sites to be at locations that are not based on maximum ground level lead concentrations, and that are instead at locations at or beyond the property line that are representative of upwind or background concentrations.
 - (D) Sampling sites at the property line may be located just inside the fence line on facility property if logistical constraints preclude placement outside the fence line at the point of maximum expected ground level lead concentrations.
 - (E) The Executive Officer may require a facility to relocate existing monitors or install additional monitors to those required under subparagraph (e)(2)(A) in order to measure ambient air lead concentrations at locations that may contribute to the exceedance of an ambient air lead concentration limit specified in subdivision (d) if information becomes available showing:
 - (i) A new or existing source of lead emissions that was not previously identified or fully disclosed;
 - (ii) An increase in lead emissions from an existing source where existing monitors are not capturing the potential ambient air lead concentration; or
 - (iii) That none of the existing monitors are capturing the maximum expected ground level lead concentration.
- (3) Any facility that is conducting ambient air lead monitoring and sampling prior to October 2, 2015 where the number and locations of the monitors have been approved by the Executive Officer and meet the requirements specified subparagraphs (e)(2)(A) through (e)(2)(D) shall continue conducting ambient air lead monitoring and sampling as approved by the Executive Officer. An owner or operator shall not be subject to the plan submittal requirements of paragraph (e)(1) if the plan previously approved by the Executive Officer for the existing ambient air lead monitoring and sampling system meets the requirements of

subparagraphs (e)(2)(A) through (e)(2)(D), and in which case the previously approved plan shall be subsumed into the requirements of this rule and be considered a Lead Ambient Air Monitoring and Sampling Plan under this rule.

- (4) All facilities, except those that meet the applicability of paragraph (e)(3), shall conduct ambient air monitoring and sampling as follows:
 - (A) Commission the ambient air monitoring and sampling network by collecting a valid 24-hour, midnight-to-midnight sample at all sites for 30 consecutive days from the date of initial sampling.
 - (B) After the commission period specified above, collect one valid 24-hour, midnight-to-midnight sample at least once every six calendar days, on a schedule approved by the Executive Officer.
- (5) Notwithstanding paragraph (e)(4), facilities shall collect a valid 24-hour, midnight-to-midnight sample according to the requirements specified in subparagraph (e)(5)(A) through (e)(5)(D), if any of the exceedances of subparagraph (e)(5)(A) or (e)(5)(C) occur:

(A)

Effective Date	Ambient Air Concentration of Lead ($\mu\text{g}/\text{m}^3$) Averaged over any 30 consecutive days	Sampling Frequency at the Affected Monitor
On or Before March 31, 2018	0.150 - 0.300	1-in-3 days
	> 0.300	Daily
On or After April 1, 2018	0.100 - 0.150	1-in-3 days
	> 0.150	Daily

For facilities conducting ambient air monitoring and sampling pursuant to paragraph (e)(2), the effective date of the table above shall be 90 days after approval of a Lead Ambient Air Monitoring and Sampling Plan. For facilities conducting ambient air monitoring and sampling pursuant to paragraph (e)(3), the effective date of the table above shall be no later than October 2, 2015.

- (B) The owner or operator of a metal melting facility shall begin the applicable ambient air monitoring and sampling schedule specified in

- subparagraph (e)(5)(A) no later than three calendar days from the time the facility knew or should have known of the exceedance. The monitoring and sampling done pursuant to the schedule in subparagraph (e)(5)(A) shall remain in effect until the monitoring results at each affected monitoring station are at or below ambient air lead concentration limit specified in subdivision (d) for a period of 30 consecutive days.
- (C) The owner or operator of a metal melting facility shall collect a valid 24-hour midnight-to-midnight sample daily if:
- (i) The Executive Officer has approved a Health Risk Assessment for the facility after January 1, 2015 that exceeds the action risk level specified in District Rule 1402; and
 - (ii) After October 2, 2014, the facility has exceeded an ambient air lead concentration of $0.120 \mu\text{g}/\text{m}^3$ averaged over any 30 consecutive days measured by any monitor installed pursuant to subdivision (e), by any District-installed monitor collocated with a monitor installed pursuant to paragraph (e), or by any District-installed monitor located beyond the property line of a metal melting facility that measures lead concentrations resulting from the facility.
- (D) For facilities required to conduct daily sampling pursuant to (e)(5)(C), daily ambient air monitoring and sampling shall begin no later than three calendar days after approval of the Health Risk Assessment specified in clause (e)(5)(C)(i), no later than three calendar days from the time the facility knew or should have known of the exceedance specified in clause (e)(5)(C)(ii), or by October 2, 2015, whichever date is latest.
- (6) If a valid 24-hour, midnight-to-midnight sample was not collected due to a monitor malfunction or other occurrence beyond the control of the facility, the owner or operator shall:
- (A) Report with a notification made to 1-800-CUT-SMOG within 2 hours of knowing that the valid 24-hour, midnight-to-midnight sample was not collected providing the facility name, name of the monitor, the date of the occurrence, and the reason that the valid 24-hour, midnight-to-midnight sample was not collected; and

- (B) For each of the monitors, the operator shall not miss a valid 24-hour, midnight-to-midnight sample for more than one day over a consecutive 30-day period.
- (7) The owner or operator of a metal melting facility shall submit samples collected pursuant to this subdivision to a laboratory approved under the SCAQMD Laboratory Approval Program for analysis within three calendar days of collection and calculate ambient lead concentrations for individual valid 24-hour samples within 15 calendar days of the end of the calendar month in which the samples were collected. Split samples shall be made available and submitted to the District upon request by the Executive Officer.
- (8) Sample collection for lead shall be conducted using Title 40, CFR 50 Appendix B - *Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method)*, or U.S. EPA-approved equivalent methods, and sample analysis for lead shall be conducted using Title 40, CFR 50 Appendix G - *Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air*, or U.S. EPA-approved equivalent methods.
- (9) Continuously record wind speed and direction data at all times using equipment approved by the Executive Officer at a minimum of one location approved by the Executive Officer.
- (10) A facility may conduct valid 24-hour sampling on a schedule different than midnight-to-midnight if it is demonstrated to and approved by the Executive Officer that the alternative schedule is adequate to routinely collect valid 24-hour samples and is conducted using the sampling methods referenced in paragraph (e)(8). The approval may be temporarily suspended during days when the SCAQMD conducts concurrent sampling to verify monitor readings. The approval may also be permanently rescinded by the Executive Officer.
- (11) Ambient air quality monitoring shall be conducted by persons approved by the Executive Officer, or facility personnel trained and certified to conduct ambient air quality monitoring demonstrated through successful completion of a course offered or approved by the Executive Officer. Sampling equipment shall be operated and maintained in accordance with U.S. EPA-referenced methods.
- (12) All ambient air quality monitoring systems conducting daily sampling required by subparagraph (e)(5)(C) shall be equipped with a backup, uninterruptible power supply to ensure continuous operation of the monitoring system during a power

outage, which must be installed no later than 30 days after daily sampling under subparagraph (e)(5)(C) is required.

- (13) Cleaning activities including, but not limited to, wet washing and misting, that could result in damage or biases to samples collected shall not be conducted within 10 meters of any sampling site required under this subdivision.
- (14) Lead samples collected pursuant to this subdivision shall be retained for one year. The samples shall be stored in an individually sealed container and labeled with the applicable monitor and date. Upon request, the samples shall be provided to the Executive Officer within one business day.

(f) **Lead Point Source Emissions Controls**

No later than March 1, 2016, the owner or operator of a metal melting facility shall vent emissions from each lead point source to a lead emission control device that meets the requirements of this subdivision and is approved in writing by the Executive Officer.

- (1) Any lead emission control device, or series of lead emission control devices, shall reduce lead emissions by a minimum of 99% or meet an outlet mass lead emission rate of less than 0.00030 pounds per hour as determined by the most recent District-approved source test conducted on behalf of the facility or the District pursuant to subdivision (j). Subsequent to the initial source test to demonstrate compliance with the minimum 99% control efficiency, the owner or operator, may alternatively demonstrate, through a source test conducted pursuant to subdivision (j), that the total mass lead outlet emission rate is no greater than a total mass lead outlet emission rate requisite to achieve 99% control efficiency, as calculated using the most recent District-approved source test conducted at the inlet and outlet of the lead emission control device to determine compliance with the 99% control efficiency requirement, or meet an outlet mass lead emission rate of less than 0.00030 pounds per hour. Any permit modification to the equipment or process vented to the subject lead control device that may affect the amount of lead emissions from the equipment or process shall result in a new source test at the inlet and outlet of the lead emission control device to determine compliance with the 99% control efficiency requirement.
- (2) Filter media other than a filter bag(s) for any lead emission control device including, but not limited to, HEPA and cartridge-type filters, shall be rated by the manufacturer to achieve a minimum of 99.97% control efficiency for 0.3 micron particles.

- (3) Filter bag(s) for any lead emission control device shall be polytetrafluoroethylene membrane-type, or any other material that is equally or more effective for the control of lead emissions, and approved for use by the Executive Officer.
 - (4) The total facility mass lead emissions shall be determined based on the average of triplicate samples, using the most recently approved source tests conducted on behalf of the facility or the District, pursuant to subdivision (j).
 - (5) For each emission collection system subject to this subdivision, a periodic smoke test shall be conducted, unless performing such test presents an unreasonable risk to safety, at least once every 3 months using the procedure set forth in Appendix 2 of this rule.
 - (6) Each emission collection system and emission control device subject to this subdivision shall be approved in writing by the Executive Officer and, at minimum, be inspected, maintained, and operated in accordance with the manufacturer's specifications.
- (g) Total Enclosures
- (1) Enclosure Areas
No later than March 1, 2016, the owner or operator of a metal melting facility shall install a total enclosure, as defined in paragraph (c)(~~2223~~), for the following areas:
 - (A) Furnace, refining, and casting areas; and
 - (B) Lead oxide production and pasting areas.Total enclosures shall be designed in a manner that does not conflict with requirements set forth by the Occupational and Safety Hazard Assessment regarding worker safety.
 - (2) Total Enclosure Cross-Draft
The owner or operator of a metal melting facility shall minimize the cross-draft conditions of a total enclosure by closing any openings that result in a decrease in the collection of lead emissions for an emission collection system, including, but not limited to, vents, windows, passages, doorways, bay doors, and roll-ups. Acceptable methods to minimize cross-draft conditions include closing doors or openings when not in use, using automatic roll-up doors, installing plastic strip curtains, or installing vestibules. Alternative methods to closing openings may be used, if the owner or operator can demonstrate to the Executive Officer equivalent or more effective ways to minimize cross-draft conditions.

(3) Total Enclosure with Negative Air

(A) The owner or operator of a metal melting facility shall provide negative air for a total enclosure specified in paragraph (g)(1) pursuant to Appendix 1 if:

(i) The Executive Officer has approved a Health Risk Assessment for the facility after January 1, 2015 that exceeds the action risk level specified in District Rule 1402; and

(ii) After October 2, 2014, the facility has exceeded an ambient air lead concentration of $0.120 \mu\text{g}/\text{m}^3$ averaged over any 30 consecutive days measured by any monitor installed pursuant to subdivision (e), by any District-installed monitor collocated with a monitor installed pursuant to paragraph (e), or by any District-installed monitor located beyond the property line of a metal melting facility that measures lead concentrations resulting from the facility.

(B) Total enclosures with negative air subject to this paragraph shall be installed, maintained, and operated no later than two years after approval of a Health Risk Assessment specified in clause (g)(3)(A)(i), no later than two years after an exceedance referenced in clause (g)(3)(A)(ii) that occurred at a facility with an approved Health Risk Assessment referenced in clause (g)(3)(A)(i), or by April 1, 2018, whichever is latest.

(C) The Executive Officer may approve a request for an extension of the compliance deadline date in subparagraph (g)(3)(B) if the facility can demonstrate that it timely filed all complete permit applications and is unable to meet the deadline due to reasons beyond the facility's control. The request shall be submitted to the Executive Officer no later than 30 days before the compliance deadline date.

(h) Housekeeping Requirements

Unless otherwise specified, no later than 30 days after October 2, 2015, the owner or operator of a metal melting facility shall control fugitive lead-dust by conducting all of the following housekeeping practices:

(1) Clean by wet wash or with a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% control efficiency for 0.3 micron particles in a manner that does not generate fugitive lead-dust, the areas at the specified

frequencies listed in subparagraph (h)(1)(A) through (h)(1)(D), unless located within a total enclosure vented to a lead emission control device. Days of measurable precipitation in the following areas occurring within the timeframe of a required cleaning may be counted as a cleaning.

- (A) Quarterly cleanings, no more than 3 calendar months apart, of roof tops on structures \leq 45 feet in height that house areas associated with the processing, handling, or storage of lead-containing materials capable of generating any amount of fugitive lead-dust, excluding areas associated with the storage of raw, unprocessed lead-containing materials or finished lead-containing products;
 - (B) Beginning no later than March 30, 2016, semi-annual cleanings, no more than 6 calendar months apart, of roof tops on structures $>$ 45 feet in height that house areas associated with the processing, handling, or storage of lead-containing materials capable of generating any amount of fugitive lead-dust, excluding areas associated with the storage of raw, unprocessed lead-containing materials or finished lead-containing products; and
 - (C) Weekly cleanings by wet wash, vacuum, wet-mop, or stabilization with a dust suppressant of all:
 - (i) Areas where lead-containing wastes generated from housekeeping activities are stored, disposed of, recovered or recycled; and
 - (ii) Surfaces that accumulate lead-containing dust subject to foot traffic.
 - (D) Initiate immediate cleaning, no later than one hour after any construction or maintenance activity or event including, but not limited to, accidents, process upsets, or equipment malfunction, that causes deposition of fugitive lead-dust onto areas specified in subparagraphs (h)(1)(A) through (h)(1)(C). If the facility can demonstrate that delays were due to unreasonable risks to safety posed by earlier cleaning, or inability to reasonably obtain equipment required to implement this requirement, immediate cleanings of roof tops shall be completed within 72 hours.
- (2) Inspect all total enclosures and facility structures that house, contain or control any lead point source or fugitive lead-dust emissions at least once a month. Any gaps, breaks, separations, leak points or other possible routes for emissions of lead or fugitive lead-dust from the total enclosure to the ambient air shall be permanently repaired within 72 hours of discovery. The Executive Officer may

approve a request for an extension beyond the 72-hour limit if the request is submitted before the 72-hour time limit has expired.

- (3) No later than March 30, 2016, pave with concrete or asphalt all facility grounds. Alternatively, the owner or operator may stabilize with dust suppressants all facility grounds, at a frequency no less than what is specified by the manufacturer, as approved in writing by the Executive Officer.
 - (A) An alternative frequency of applying stabilization with dust suppressants may be used based on recommendations by a vendor or installer if the facility can provide information to the Executive Officer demonstrating that the alternative frequency is more appropriate for the specific application at its facility, including factors such as the type of use of the dust suppressant, physical properties of the lead containing material, exposure, and adjacent uses.
 - (B) Facility grounds used for plant life that have less than a total surface area of 500 square feet, landscaped areas within facility parking lots, and facility perimeter landscaped areas shall not be subject to paragraph (h)(3).
 - (C) Facility grounds that cannot be paved with concrete or asphalt, or otherwise stabilized with dust suppressants, in order to comply with city or other municipal permits, ordinances, State Water Control Board requirements, or any other state or federal agency requirements, shall not be subject to paragraph (h)(3).
 - (D) Facility grounds requiring removal of existing pavement, concrete, asphalt or other forms of stabilization, necessary for construction or maintenance purposes, shall not be subject to this paragraph while undergoing work, and shall be paved with concrete or asphalt, or otherwise stabilized with dust suppressants immediately after all required work is completed. All work shall be conducted in accordance with subdivision (i).
 - (E) Undeveloped facility grounds where no activities or operations are conducted shall not be subject to paragraph (h)(3).
- (4) Remove any weather cap installed on any stack that is a source of lead emissions.
- (5) Store all materials capable of generating any amount of fugitive lead-dust including, but not limited to, slag and any other lead-containing waste generated from the housekeeping requirements of this subdivision and the construction or

- maintenance activities of subdivision (i), in sealed leak-proof containers, or stabilize such materials using dust suppressants approved in writing by the Executive Officer, unless located within a total enclosure.
- (6) Transport all materials capable of generating any amount of fugitive lead-dust including, but not limited to, slag and any other waste generated from the housekeeping requirements of this subdivision, within closed conveyor systems or in sealed, leak-proof containers, or stabilize such materials using dust suppressants approved in writing by the Executive Officer, unless located within a total enclosure. This paragraph shall not be applicable to the transport of high temperature materials exceeding 500 degrees Fahrenheit where implementation of the specified control requirements is infeasible.
- (7) Maintain a mobile wet scrubber or vacuum sweeper that is in compliance with District Rule 1186, or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% control efficiency for 0.3 micron particles to conduct the following sweeping activities located outside of a total enclosure:
- (A) Wet scrub or vacuum sweep all facility areas paved with concrete or asphalt subject to vehicular traffic at least ~~once per operating shift with each event not less than four hours apart~~ twice per week, unless located within a total enclosure vented to a lead control device or as specified pursuant to subparagraph (h)(7)(B). Wet scrubbing or vacuum sweeping shall not be required in parking spaces that are occupied by parked vehicles or between parked vehicles.
- (B) Wet scrub or vacuum sweep parking lots that border administrative offices once per week. However, any parking lot that borders an administrative office(s) and is used to transport, handle, or store lead containing materials that have the potential to generate fugitive lead-dust shall be wet scrubbed or vacuum swept in accordance with subparagraph (h)(7)(A).
- (C) Immediately wet scrub or vacuum sweep any area specified in subparagraph (h)(7)(A), no later than one hour after any construction or maintenance activity or event including accidents, process upsets, or equipment malfunctions that results in the deposition of fugitive lead-dust.
- (D) Wet scrubbing or vacuum sweeping activities shall not be required during days of measurable precipitation.
- (8) Except when inside a total enclosure, all lead-containing trash and debris shall be placed in covered containers that remain covered at all times except when trash

or debris is actively transferred. Trash and debris containers shall be free of liquid or dust leaks.

- (9) Post signs at all entrances and truck loading and unloading areas indicating a:
 - (A) Speed limit of 5 miles per hour (mph) or less on any roadway located within 75 feet of the perimeter of a total enclosure.
 - (B) Speed limit of 15 (mph) or less on any roadway located more than 75 feet from the perimeter of a total enclosure.
- (10) For any of the housekeeping requirements specified under paragraphs (h)(1) through (h)(9), an alternative housekeeping measure can be used provided the owner or operator ~~demonstrates and receives written approval from~~ notifies the Executive Officer that the alternative housekeeping measure meets the same objective and effectiveness of the housekeeping requirement it is replacing, where the objective and effectiveness of each housekeeping requirement is stated in Appendix 3. The owner or operator may proceed with implementation of the alternative housekeeping measure unless, within seven days of receiving the notification from the owner or operator, the Executive Officer informs the owner or operator that the alternative housekeeping measure does not meet the same objective and/or effectiveness as stated in Appendix 3.
 - (i) Construction or Maintenance Activity Requirements
 - (1) Beginning October 2, 2015, the owner or operator shall conduct any construction or maintenance activity and subsequent clean-up using one of the following control measures:
 - (A) Inside a temporary negative air containment enclosure, vented to a District-permitted negative air machine equipped with a filter(s) rated by the manufacturer to achieve a 99.97% control efficiency for 0.3 micron particles, that encloses all affected areas where fugitive lead-dust generation potential exists.
 - (B) Inside a partial enclosure, using wet suppression or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% control efficiency for 0.3 micron particles at locations where the potential to generate fugitive lead-dust exists.
 - (C) If conducting construction or maintenance activity and subsequent clean-up inside a partial enclosure creates conditions posing physical constraints, limited accessibility, or unreasonable risks to safety,

construction or maintenance activity must be conducted using wet suppression or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% control efficiency for 0.3 micron particles, at locations where the potential to generate fugitive lead-dust exists.

- (2) Construction or maintenance activity shall be stopped immediately when instantaneous wind speeds are ≥ 20 mph, unless the activity is being conducted within a temporary negative air containment enclosure or partial enclosure. Construction or maintenance work may be continued if it is necessary to prevent the release of lead emissions.
 - (3) All concrete or asphalt cutting or drilling performed outside of a total enclosure shall be performed under 100% wet conditions.
 - (4) Grading of soil shall only be performed on soils sufficiently wet to prevent fugitive dust.
 - (5) Store in a closed container or clean by wet wash or a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% control efficiency for 0.3 micron particles, all lead-contaminated equipment and materials used for any construction or maintenance activity immediately after completion of work in a manner that does not generate fugitive lead-dust.
- (j) Source Tests
- (1) Beginning October 2, 2015, the owner or operator shall conduct a source test of all lead point sources at least annually to demonstrate compliance with the facility mass emissions standards specified in subdivision (f). If an annual source test to demonstrate compliance with the lead point source emission standards of subdivision (f) demonstrates a 99% or greater reduction of lead emissions, and total facility mass lead emissions of less than 0.020 pounds per hour, then the next test for all lead point sources shall be performed no later than 24 months after the date of the most recent test.
 - (2) The owner or operator of a metal melting facility with an existing lead emission control device in operation before October 2, 2015 shall conduct a source test for it no later than December 31, 2015. The owner or operator of a metal melting facility with a new or modified lead control device with initial start-up on or after October 2, 2015 shall conduct the initial source test for it within 60 calendar days after initial start-up.

- (3) At least 60 calendar days prior to conducting a source test pursuant to paragraph (j)(1) or (j)(2), the owner or operator shall submit a pre-test protocol to the Executive Officer for approval. The pre-test protocol shall include the source test criteria of the end user and all assumptions, required data, and calculated targets for testing the following:
 - (A) Target lead mass emission standard;
 - (B) Preliminary target pollutant analytical data;
 - (C) Planned sampling parameters; and
 - (D) Information on equipment, logistics, personnel, and other resources necessary for an efficient and coordinated test.
- (4) The owner or operator shall notify the Executive Officer in writing one week prior to conducting any source test required by paragraph (j)(1) or (j)(2).
- (5) The owner or operator shall notify the Executive Officer within three business days (Monday through Friday) of when the facility knew or should have known of any source test result that exceeds any of the emission standards specified in subdivision (f). Notifications shall be made to 1-800-CUT-SMOG and followed up in writing to the Executive Officer with the results of the source tests within seven business days of notification.
- (6) Source tests shall be conducted while operating at a minimum of 80% of the equipment's permitted capacity and in accordance with any of the following applicable test methods:
 - (A) SCAQMD Method 12.1 - *Determination of Inorganic Lead Emissions from Stationary Sources Using a Wet Impingement Train*
 - (B) ARB Method 12 - *Determination of Inorganic Lead Emissions from Stationary Sources*
 - (C) EPA Method 12 - *Determination of Inorganic Lead Emissions from Stationary Sources*
 - (D) ARB Method 436 - *Determination of Multiple Metal Emissions from Stationary Sources*
- (7) The operator may use alternative or equivalent source test methods as defined in U.S. EPA 40 CFR 60.2, if approved in writing by the Executive Officer, in addition to the Air Resources Board, or the U.S. EPA, as applicable.
- (8) The operator shall use a test laboratory approved under the SCAQMD Laboratory Approval Program for the source test methods cited in this subdivision. If there is no approved laboratory, then approval of the testing procedures used by the

laboratory shall be granted by the Executive Officer on a case-by-case basis based on SCAQMD protocols and procedures.

- (9) When more than one source test method or set of source test methods are specified for any testing, the application of these source test methods to a specific set of test conditions is subject to approval by the Executive Officer. In addition, a violation established by any one of the specified source test methods or set of source test methods shall constitute a violation of the rule.
 - (10) An existing source test conducted on or after January 1, 2014 for lead emission control devices existing before October 2, 2015 may be used as the initial source test specified in subparagraph (j)(1) to demonstrate compliance with the lead emission control standards of subdivision (f). The source test shall meet, at a minimum, the following criteria:
 - (A) The test is the most recent conducted since January 1, 2014;
 - (B) The test demonstrated compliance with the control requirements of subdivision (f);
 - (C) The test is representative of the method to control emissions currently in use; and
 - (D) The test was conducted using applicable and approved test methods specified in paragraphs (j)(6) through (j)(8).
 - (11) Testing conducted by the facility, by the District, or by a contractor acting on behalf of the District or the facility to determine compliance with this rule shall be performed according to the most recent District-approved test protocol for the same purpose or compounds.
 - (12) Reports from source testing conducted pursuant to subdivision (j) shall be submitted to the District in 90 days or less after completion of testing.
- (k) Recordkeeping
- (1) The owner or operator shall keep records of the following:
 - (A) Daily records indicating amounts of lead-containing material melted, the percentage of lead contained within that melted metal, and the basis for any lead percentage calculation. The Executive Officer may approve other alternative methods to calculate the amount of lead melted and the percentages of lead contained within the melted metal. Records to be maintained shall include, but are not limited to, purchase records, usage

records, results of analyses, source test data, and other District-approved verification to indicate melting amounts;

- (B) Results of all ambient air lead monitoring, wind monitoring, and other data specified by subdivision (e); and
- (C) Records of housekeeping activities completed as required by subdivision (h), construction or maintenance activities required by subdivision (i), periodic smoke tests required by paragraph (f)(5), and emission control device inspection and maintenance required by paragraph (f)(6), including the name of the person performing the activity, and the dates and times at which specific activities were completed.

- (2) The owner or operator shall maintain all records for five years, with at least the two most recent years kept onsite.

(l) Ambient Air Monitoring Reports

- (1) Beginning no later than November 2, 2015, the owner or operator of a metal melting facility that meets the requirements of paragraph (e)(3), shall report by the 15th of each month to the Executive Officer, the results of all ambient air lead and wind monitoring for each preceding month, or more frequently if determined necessary by the Executive Officer. The report shall include the results of individual valid 24-hour samples and 30-day rolling averages for each day within the reporting period.
- (2) Beginning no later than 90 days after a Lead Ambient Air Monitoring and Sampling Plan is approved by the Executive Officer, the owner or operator of a metal melting facility shall report by the 15th of each month to the Executive Officer, the results of all ambient air lead and wind monitoring for each preceding month, or more frequently if determined necessary by the Executive Officer. The report shall include the results of individual valid 24-hour samples and 30-day rolling averages for each day within the reporting period.
- (3) Any exceedances of ambient air lead concentrations specified in subdivision (d) shall be reported with a notification made to the 1-800-CUT-SMOG within 24 hours of receipt of the completed sample analysis required in subdivision (e), followed by a written report to the Executive Officer no later than three calendar days after the notification. The written report shall include the potential causes of the exceedance and the specific corrective actions implemented.

(m) Compliance Plan

- (1) The owner or operator shall submit a Compliance Plan if emissions are discharged into the atmosphere which contribute to an ambient air lead concentration or total facility mass lead emissions rate that exceeds any of the following:

Effective Date	Ambient Air Concentration of Lead ($\mu\text{g}/\text{m}^3$) Averaged over any 30 consecutive days	Total Facility Mass Lead Emissions Rate (pounds per hour)
July 1, 2016 – March 31, 2018	0.120	0.080
On or After April 1, 2018	0.100	

An exceedance of the ambient air lead concentrations specified in this paragraph shall occur if it is measured by any monitor installed pursuant to subdivision (e), by any District-installed monitor collocated with a monitor installed pursuant to subdivision (e), or by any District-installed monitor located beyond the property line of a metal melting facility that measures lead concentrations resulting from the facility. The total facility mass lead emissions rate shall be determined based on the average of triplicate samples, using the most recently approved source tests conducted on behalf of the facility or the District, pursuant to subdivision (j).

- (2) The owner or operator shall notify the Executive Officer in writing within 72 hours of when the facility knew or should have known it exceeded the applicable ambient air lead concentration or total facility mass lead emissions rate specified in paragraph (m)(1).
- (3) The Compliance Plan shall contain a description of lead emission reduction measures necessary to avoid future exceedances of the applicable ambient air lead concentration limit specified in subdivision (d).
- (A) The lead emission reduction measures shall consider the following categories for those lead emission sources that may have contributed to any monitor that has measured an ambient air lead concentration greater than $0.070 \mu\text{g}/\text{m}^3$ averaged over any 30 consecutive days:

- (i) Housekeeping, inspection, and construction or maintenance activities;
 - (ii) Total enclosures with negative air pursuant to the requirements in Appendix 1 of this rule;
 - (iii) Modifications to lead emission control devices and total enclosures with negative air;
 - (iv) Installation of multi-stage lead emission control devices, including but not limited to devices that use filter media other than a filter bag(s), such as HEPA and cartridge-type filters rated by the manufacturer to achieve a minimum of 99.97% control efficiency for 0.3 micron particles;
 - (v) Process changes, including reduced throughput limits; and
 - (vi) Conditional curtailments including, at a minimum, information specifying the curtailed processes, process amounts, and length of curtailment.
- (B) The Compliance Plan shall explain how the owner or operator will identify and implement the lead emission reduction measures necessary to achieve the applicable ambient air lead concentration limit specified in subdivision (d) and how additional measures will be evaluated and implemented in the event of a subsequent exceedance.
- (4) The Compliance Plan shall identify the locations within the facility and method(s) of implementation for each lead emissions reduction measure listed in accordance with paragraph (m)(3).
- (5) The Compliance Plan shall include an implementation schedule for each lead emission reduction measure including those specified pursuant to paragraph (m)(3).
- (A) The Compliance Plan shall include information that categorizes the lead emission reduction measures based on the potential cause of a reasonable foreseeable exceedance and prioritizes each measure based on the time needed to implement the measure, with the highest priority given to those measures that can be implemented within the shortest amount of time; and
 - (B) The Compliance Plan shall specify a schedule that identifies the length of time needed to implement each lead emission reduction measure. The implementation schedule shall take into consideration the timeframe

needed for engineering design, permitting, installing, and commissioning of equipment, if applicable.

- (C) The Executive Officer may require implementation of additional lead emission reduction measures prior to the completion of implementation of the initial measures if there is information demonstrating that implementation of the initial measures is not enough to avoid a subsequent exceedance of the applicable ambient lead concentration limit specified in subdivision (d).
- (6) A complete Compliance Plan shall be submitted to the Executive Officer in writing for review and approval within 30 calendar days of an initial exceedance of an ambient air lead concentration or total facility mass lead emissions rate pursuant to paragraph (m)(1).
- (7) The owner or operator shall update the Compliance Plan 30 days from any additional exceedances of the ambient air lead concentration or total facility mass lead emissions rate pursuant to paragraph (m)(1). The updated Compliance Plan shall identify any measures implemented pursuant to paragraph (m)(3) through (m)(5) and identify any new measures that can be implemented.
- (8) The review and approval of the Compliance Plan shall be subject to plan fees as specified in Rule 306.
- (9) The Executive Officer shall notify the owner or operator in writing whether the Compliance Plan is approved or disapproved.
 - (A) Determination of approval status shall be based on, at a minimum, submittal of information that satisfies the criteria set forth in paragraphs (m)(3) through (m)(5), and whether the plan is likely to lead to avoiding future exceedances of the ambient air concentration limits set forth in subdivision (d).
 - (B) If the Compliance Plan is disapproved, the owner or operator shall resubmit the Compliance Plan, subject to plan fees specified in Rule 306, within 30 calendar days after notification of disapproval of the Compliance Plan. The resubmitted Compliance Plan shall include any information necessary to address deficiencies identified in the disapproval letter. It is a violation of the rule for a facility not to have an approved Compliance Plan after the second denial.

- (C) If the resubmitted plan is denied, the owner or operator may appeal the denial by the Executive Officer to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans.
- (10) If lead emissions discharged from the facility contribute to ambient air lead concentrations that exceed the levels specified in the table below within any rolling 24 month period, the owner or operator shall implement the appropriate measure(s) described in the approved Compliance Plan that are necessary to attain the applicable ambient air concentration limit specified in subdivision (d) and notify the Executive Officer of the measures being implemented within 10 business days of when the owner or operator knew or should have known that the ambient lead concentration exceeded the applicable limit specified in paragraph (d)(1).

Effective Date	Ambient Air Concentration of Lead, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), averaged over any 30 consecutive days	Total # of exceedances (within any rolling 24-month period)
January 1, 2017 – March 31, 2018	0.150	1
On or After April 1, 2018	0.100	3

An exceedance of the ambient air lead concentrations specified in this paragraph shall occur if it is measured by any monitor installed pursuant to subdivision (e), by any District-installed monitor collocated with a monitor installed pursuant to subdivision (e), or by any District-installed monitor located beyond the property line of a metal melting facility that measures lead concentrations resulting from the facility.

- (11) If the owner or operator of a metal melting facility is required to implement lead reduction measures in an approved Compliance Plan pursuant to paragraph (m)(10) and the lead emission rate from all lead point sources as determined pursuant to subdivision (j) is greater than 0.080 pounds per hour, the owner or operator of a metal melting facility shall implement those measures in the

approved Compliance Plan that will reduce the lead point source emission rate. The owner or operator of a metal melting facility shall not be required to implement lead emission reduction measures relating to the installation of additional controls on existing control equipment if:

- (A) Installation of additional/modified controls are already underway during the time of the ambient air lead concentration exceedance; and
- (B) The installation of additional/modified controls are for the lead point source that caused the ambient air lead concentration exceedance; and
- (C) No more than 90 days have passed since initial operation of the additional/modified controls.

(12) The owner or operator may make a request to the Executive Officer to approve a modified or updated Compliance Plan.

(13) The owner or operator shall update the Compliance Plan 12 months from initial approval. Thereafter, the owner or operator shall update the Compliance Plan on or before the annual anniversary of the initial approval if within the preceding 12 months the lead emissions discharged from the facility contributed to ambient air concentrations of lead that exceeded $0.100 \mu\text{g}/\text{m}^3$ averaged over any 30 consecutive days, measured at any monitor pursuant to subdivision (e), or by any District-installed monitor located beyond the property line of a metal melting facility that measures lead concentrations resulting from the facility. Compliance Plan updates shall indicate measures that have been implemented and identify any new or enhancements to existing lead emission reduction measures.

(n) Visible Emissions

Beginning October 2, 2015, the owner or operator of a metal melting facility shall not discharge into the atmosphere fugitive lead-dust emissions that exceed Ringlemann 0.5, or 10 percent opacity, for more than three minutes aggregate in any 60-minute period.

(o) Exemptions

(1) Ambient Air Monitoring Relief Plan

An owner or operator of a metal melting facility that demonstrates ambient air lead concentration levels of less than or equal to $0.070 \mu\text{g}/\text{m}^3$ averaged over 30 consecutive days, measured during normal operating conditions that are representative of the facility, may be exempt from the ambient air monitoring requirements set forth in subdivision (e) upon Executive Officer approval of an

air monitoring relief plan, which shall be granted if the plan contains all of the following:

- (A) Air dispersion modeling analysis that demonstrates an ambient air lead concentration of $\leq 0.070 \mu\text{g}/\text{m}^3$ averaged over 30 consecutive days that is representative of normal facility operations; and
- (B) One year of ambient air lead monitoring data without a single 30 consecutive day average exceeding an ambient air lead concentration of $0.070 \mu\text{g}/\text{m}^3$; and
- (C) Most recent source tests approved by the District demonstrate a total facility mass lead emissions rate from all lead point sources of less than 0.040 pounds per hour.

Any violation of the ambient air lead concentrations required by subdivision (d) or any permit modification to equipment or processes that results in an increase in lead emissions that can be shown to cause an exceedance with the ambient air lead concentrations required by subdivision (d) shall result in revocation of the air monitoring relief plan. Upon revocation of the air monitoring relief plan, the owner or operator of a metal melting facility shall comply with the requirements of subdivision (e) no later than 180 days after revocation of the air monitoring relief plan.

(2) Lead Point Source Emissions Controls

Any lead point source that has an uncontrolled emission rate of 0.005 pounds per hour or less shall be exempt from the requirements of subdivision (f) of this rule provided that a source test pursuant to subdivision (j) is conducted for the lead point source at least once every 24 months.

(3) Lead Minimization

The owner or operator of a metal melting facility as described in subdivision (b) shall not be subject to the requirements of this rule if the amount of lead melted at the facility has been reduced to less than 50 tons per year based on lead melting limits specified in facility permit conditions, and facility lead processing records required under subdivision (k) of this rule or subdivision (i) of Rule 1420 – Emissions Standards for Lead. A facility exempt from this rule shall be subject to requirements of Rule 1420.

(4) Rule 1420

An owner or operator of a metal melting facility subject to this rule shall be exempt from the requirements of Rule 1420. A Rule 1420 Compliance Plan that

has been issued to the owner or operator of a metal melting facility prior to October 2, 2015 shall be subsumed into the requirements of this rule and be considered a Rule 1420.2 Compliance Plan. The owner or operator shall continue to comply with all conditions stated within the plan in addition to the requirements of subdivision (m) if triggered.

Appendix 1 – Requirements for Total Enclosures with Negative Air

The following provides the requirements for Total Enclosures with Negative Air that must be complied with pursuant to paragraph (g)(3) or included in the Compliance Plan as specified in clause (m)(3)(A)(iii).

1. Total Enclosure Emissions Control

The owner or operator shall vent each total enclosure under negative pressure to an emission collection system that ducts the entire gas stream that may contain lead to a lead emission control device pursuant to subdivision (f).

2. Total Enclosure Ventilation

Ventilation of the total enclosure at any opening including, but not limited to, vents, windows, passages, doorways, bay doors, and roll-ups shall continuously be maintained at a negative pressure of at least 0.02 mm of Hg (0.011 inches H₂O) measured by paragraph (3) of this Appendix.

3. Digital Differential Pressure Monitoring Systems

The owner or operator shall install, operate, and maintain a digital differential pressure monitoring system for each total enclosure as follow:

(A) A minimum of one building digital differential pressure monitoring system shall be installed and maintained at each of the following three walls in each total enclosure having a total ground surface area of 10,000 square feet or more:

(i) The leeward wall;

(ii) The windward wall; and

(iii) An exterior wall that connects the leeward and windward wall at a location defined by the intersection of a perpendicular line between a point on the connecting wall and a point on its furthest opposite exterior wall, and intersecting within plus or minus ten (+10) meters of the midpoint of a straight line between the two other monitors specified for the leeward wall and windward wall. The midpoint monitor shall not be located on the same wall as either of the other two monitors specified for the leeward wall and windward wall.

(B) A minimum of one building digital differential pressure monitoring system shall be installed and maintained at the leeward wall of each total enclosure that has a total ground surface area of less than 10,000 square feet.

(C) Digital differential pressure monitoring systems shall continuously record, at a minimum, 1-minute data for differential pressure measurements which are to be

used to calculate rolling 15-minute averages in order to determine compliance with a negative pressure of at least 0.02 mm of Hg (0.011 inches H₂O).

- (D) Digital differential pressure monitoring systems shall be certified by the manufacturer to be capable of measuring and displaying negative pressure in the range of 0.01 to 0.2 mm Hg (0.005 to 0.11 inches H₂O) with a minimum increment of measurement of plus or minus 0.001 mm Hg (0.0005 inches H₂O).
- (E) Digital differential pressure monitoring systems shall be equipped with a continuous strip chart recorder. An electronic recorder may be approved for use by the Executive Officer if the recorder is capable of writing data on a medium that is secure and tamper-proof, and the recorded data is readily accessible upon request by the Executive Officer. If software is required to access the recorded data that is not readily available to the Executive Officer, a copy of the software, and all subsequent revisions, shall be provided to the Executive Officer at no cost. If a device is required to retrieve and provide a copy of such recorded data, the device shall be maintained and operated at the facility.
- (F) Digital differential pressure monitoring systems shall be calibrated in accordance with manufacturer's specifications at least once every 12 calendar months or more frequently if recommended by the manufacturer.
- (G) Digital differential pressure monitoring systems shall be equipped with a backup, uninterruptible power supply to ensure continuous operation of the monitoring system during a power outage.

4. In-draft Velocity

The in-draft velocity of the total enclosure shall be maintained at > 200 feet per minute at any opening including, but not limited to, vents, windows, passages, doorways, bay doors, and roll-ups. In-draft velocities for each total enclosure shall be determined by placing an anemometer, or an equivalent device approved by the Executive Officer, at the center of the plane of any opening of the total enclosure.

5. Alternative Monitoring Methods and Procedures

The owner or operator may submit an alternative to any monitoring method or procedure of this Appendix for review and approval by the Executive Officer. Approval shall be granted if it is demonstrated that the alternative method or procedure is equally or more effective than the methods or procedures prescribed in this Appendix.

Appendix 2 - Smoke Test to Demonstrate Capture Efficiency for Ventilation Systems of Add-on Air Pollution Control Device(s) Pursuant to Paragraph (f)(5)

1. Applicability and Principle
 - 1.1 Applicability. This method is applicable to all lead point sources where an add-on air pollution control device is used to capture and control emissions of lead.
 - 1.2 Principle. Collection of lead emissions from lead point sources is achieved by the ventilation system associated with the add-on air pollution control device for lead processing equipment including, but not limited to hot processes that melt lead or other processes that produce lead dust. Emission control efficiency at the exhaust of an add-on air pollution control device is related to capture efficiency at the inlet of the ventilation system. For this reason, it is imperative that 100% capture efficiency is maintained. A smoke device placed within the area where collection of lead emissions by the ventilation system occurs reveals this capture efficiency.
2. Apparatus
 - 2.1 Smoke Generator. Adequate to produce a persistent stream of visible smoke (e.g., Model #15-049 Tel-Tru™ T-T Smoke Sticks from E. Vernon Hill, Incorporated). The smoke generating device should not provide excessive momentum to the smoke stream that may create a bias in the determination of collection efficiency. If the device provides slight momentum to the smoke stream, it shall be released perpendicular to the direction of the collection velocity.
3. Testing Conditions
 - 3.1 Equipment Operation: Any equipment to be smoke tested that is capable of generating heat as part of normal operation must be smoke tested under those normal operating conditions. Temperatures of pots or firing rates shall be recorded to verify operation. The smoke test shall be conducted while the add-on air pollution control device is in normal operation. The position of any adjustable dampers that can affect air flow shall be documented.
 - 3.2 Cross Draft: The smoke test shall be conducted while the add-on air pollution control device is in normal operation and under typical draft conditions representative of the facility's lead processing operations. This includes cooling fans and openings affecting draft conditions around the process area including, but not limited to, vents, windows, doorways, bay doors, and roll-ups. The smoke generator must be at full generation during the entire test and operated according to manufacturer's suggested use.

4. Procedure
 - 4.1 Collection Slots: For work stations equipped with collection slots or hoods, the smoke shall be released at points where lead emissions are generated (e.g. the point where welding or stacking of grids occurs). Observe the collection of the smoke to the collection location(s) of the ventilation system. An acceptable smoke test shall demonstrate a direct stream to the collection location(s) of the ventilation system without meanderings out of this direct path. Smoke shall be released at points not to exceed 12 inches apart across ventilated work areas. Record these observations at each of the points providing a qualitative assessment of the collection of smoke to the ventilation system.
 - 4.2 Enclosures: Enclosures include equipment where emissions are generated inside the equipment and the equipment is intended to have inward air flow through openings to prevent the escape of process emissions. Types of enclosures include, but are not limited to lead pots and grid casting machines. The smoke shall be released at points outside of the plane of the opening of the equipment, over an evenly spaced matrix across all openings with points not to exceed 12 inches apart. Observe the inward movement of the smoke to the collection location(s) of the ventilation system. An acceptable smoke test shall demonstrate a direct stream into the equipment without meanderings out of this direct path. Record these observations at each of the points providing a qualitative assessment of the collection of smoke to the ventilation system.
5. Documentation: The smoke test shall be documented by photographs or video at each point that clearly show the path of the smoke. Documentation shall also include a list of equipment tested and any repairs that were performed in order to pass the smoke test. As previously discussed, the documentation shall include the position of adjustable dampers, cross draft conditions, and the heat input of the equipment, if applicable. The documentation shall be signed and dated by the person performing the test. The records shall be maintained on site for at least two years and be made available to District personnel upon request.

**Appendix 3 - Objectives of Housekeeping Requirements
Set Forth in Paragraph (h)**

Housekeeping Measure/Paragraph	Objective	Effectiveness
(h)(1)	To clean or remove accumulated lead dust on surfaces specified under subparagraph (h)(1)(A), (h)(1)(B), and (h)(1)(C).	Any method that can clean or remove accumulated lead dust for the areas specified in paragraph (h)(1) at a frequency that provides for the same or better efficiency than implementing the required housekeeping measure and ensures that lead dust will not be generated by the alternative measure
(h)(2)	To ensure that total enclosures or structures specified in paragraph (h)(2) are free from gaps, breaks, separations, leak points or other possible routes for emissions of lead or fugitive lead dust.	Any method that can identify possible routes for emissions of lead or fugitive dust that are as or more effective than visually inspecting.
(h)(3)	To minimize fugitive lead-dust emissions from facility grounds used for operational activities.	Any method that is equally or more effective as encapsulation or physical or chemical containment of lead dust from facility grounds.
(h)(4)	To minimize accumulation near lead emission point sources.	Demonstrate that use of a weather cap does not impact the dispersion of lead dust or increase the accumulation of lead dust in and around facility more than the removal of a weather cap.
(h)(5)	To minimize fugitive lead-dust emissions from the storage of materials capable of generating fugitive lead-dust emissions specified under paragraph (h)(5).	Any method that is equally or more effective as a sealed-leak proof container or physical or chemical containment of lead dust from areas specified under paragraph (h)(5).

Housekeeping Measure/Paragraph	Objective	Effectiveness
(h)(6)	To minimize fugitive lead-dust emissions from the transport of materials capable of generating fugitive lead-dust emissions from areas specified under paragraph (h)(6).	Any method that is equally or more effective as a closed conveyor system, sealed-leak proof container, or physical or chemical containment during transport of lead dust from areas specified under paragraph (h)(6).
(h)(7)	To clean or remove accumulated lead dust on surfaces specified under paragraph (h)(7).	Any method that can clean or remove accumulated lead dust for the areas specified in paragraph (h)(7) at a frequency that provides for the same or better efficiency than implementing the required housekeeping measure and ensures that lead dust will not be generated by the alternative measure
(h)(8)	To minimize fugitive lead-dust emissions from all lead-containing trash and debris.	Any method that can contain lead-containing trash and debris that is as or more effective than a covered container.
(h)(9)	To notify persons that are operating vehicles within the facility the speed limit to minimize fugitive lead-dust emissions from vehicular movement.	Any method that effectively reduces vehicle speed to, or communicates to persons operating vehicles within the facility, the speed limit specified in paragraph (h)(9).

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 17

REPORT: Legislative and Public Affairs Report

SYNOPSIS: This report highlights September 2015 outreach activities of Legislative and Public Affairs, which include: an Environmental Justice Update, Community Events/Public Meetings, Business Assistance, and Outreach to Business and Federal, State, and Local Government.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Barry R. Wallerstein, D.Env.
Executive Officer

LBS:DJA:MC:DM

BACKGROUND

This report summarizes the activities of Legislative and Public Affairs for September 2015. The report includes four major areas: Environmental Justice Update; Community Events/Public Meetings (including the Speakers Bureau/Visitor Services, Communications Center, and Public Information Center); Business Assistance; and Outreach to Business and Federal, State and Local Governments.

ENVIRONMENTAL JUSTICE UPDATE

The following are key environmental justice-related activities in which SCAQMD staff participated during the month of September. These events involve communities that may suffer disproportionately from adverse air quality impacts.

September 8

- Staff represented SCAQMD at the City of Commerce City Council Meeting, during which the state Department of Toxic Substances Control (DTSC) provided the community with information on the clean-up efforts on and around

the Exide facility. Staff also met with representatives from Communities for a Better Environment (CBE) who expressed their concerns.

September 15

- Staff represented SCAQMD at the Long Beach Alliance for Children’s Asthma meeting and provided an update on SCAQMD programs, including the Air Quality Management Plan.

September 18

- Staff represented SCAQMD at the Environmental Justice Summit in Coachella Valley, hosted by the Center for Community Action and Environmental Justice. Staff met with multiple leaders from environmental justice groups in the Riverside County area, and learned about the many environmental justice issues affecting their communities.

September 23

- Staff provided information on National Drive Electric Week and SCAQMD related programs at the Riverside County Community Health Workshop in Riverside.

September 24

- Staff attended the Technical Working Session of the Exide Technologies Advisory Group at Maywood City Hall. Staff heard from community members about the Advisory Group’s recommendations on the clean-up efforts.

September 26

- Staff attended the 2015 Congress of Neighborhoods which was organized by the Neighborhood Councils of the City of Los Angeles. SCAQMD participated in a workshop panel entitled, “LA’s ‘Sustainable City pLAN’; What It Means For Your Community.”

September 30

- Staff met with representatives from the Southern California Association of Governments (SCAG) to discuss environmental justice and community outreach efforts, and learned about SCAG’s outreach strategies, which included focus groups, interviews, and workshops.

COMMUNITY EVENTS/PUBLIC MEETINGS

Each year, thousands of residents engage in valuable information exchanges through events and meetings that SCAQMD sponsors either alone 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;
- 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:

September 12

- National Drive Electric Week Event, sponsored by SCAQMD at the agency's headquarters, Diamond Bar
- National Drive Electric Week Event, sponsored by SCAQMD at Houghton Park, Long Beach

September 13

- National Drive Electric Week Event, sponsored by SCAQMD at Exposition Park, Los Angeles

September 16

- 2015 Anaheim Transportation Fair & Chili Cook-off, Ridesharing Under the Sea Event, Center Street Promenade, Anaheim

September 17

- Veterans Business Network Event, Lyon Air Museum, Santa Ana

September 18-19

- Alt Car Expo, Santa Monica Convention Center

September 19

- 21st Annual River Rally, Santa Clarita

September 23

- Filipino American Chamber of Commerce of Orange County's 7th Annual Green, Conserve and Health Expo, Garden Grove

September 29

- 62nd Assembly District's Back to School Wellness and Health Fair, Oakwood Park, Venice

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.

September 10

- Sixty industry delegates from Chinese air quality monitoring equipment companies hosted by the U.S. Embassy in Beijing, China, visited SCAQMD headquarters where they received overviews on the agency, air monitoring, and toured SCAQMD's laboratory.

September 23

- Twenty-two government officials from Vietnam hosted by California State University, Dominguez Hill, visited SCAQMD headquarters where they received overviews on the agency, air monitoring, and toured SCAQMD's laboratory.

COMMUNICATION CENTER STATISTICS

The Communication Center handles calls on the SCAQMD main line, 1-800-CUT-SMOG[®] line, the Spanish line, and after hours calls to each of those lines. Calls received in the month of September 2015 were:

Calls to SCAQMD's Main Line and 1-800-CUT-SMOG [®] Line	3,659
Calls to SCAQMD's Spanish-language Line	<u>30</u>
Total Calls	3,689

PUBLIC INFORMATION CENTER STATISTICS

The Public Information Center (PIC) handles phone calls and walk-in requests for general information. Information for the month of September is summarized below:

Calls Received by PIC Staff	175
Calls to Automated System	<u>1,011</u>
Total Calls	1,186
Visitor Transactions	252

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:

- Conducted 14 free on-site consultations
- Provided permit application assistance to 118 companies
- Issued 20 clearance letters

Types of businesses assisted

Auto Body Shops	Dry Cleaners	Printing Facilities
Chemical Manufacturer	Gas Stations	Circuit Board Manufacturer
Engineering	Restaurants	Metal Plating Facilities
Construction	Architecture	Plastic Molding/Extruding

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:

Anaheim	La Habra	Riverside
Alhambra	Lake Elsinore	Rosemead
Arcadia	Los Angeles	San Dimas
Brea	Los Alamitos	San Gabriel
Buena Park	Maywood	San Jacinto
Canyon Lake	Menifee	San Marino
Commerce	Monterey Park	Sierra Madre
Diamond Bar	Moreno Valley	Temple City
Duarte	Murrieta	Temecula
Glendora	Norco	Walnut
Hemet	Pasadena	

Visits and/or communications were conducted with elected officials or staff from the following State and Federal Offices:

- U.S. Senator Barbara Boxer
- U.S. Congressman Ken Calvert
- U.S. Congresswoman Janice Hahn

- U.S. Congressman Duncan Hunter
- U.S. Congressman Alan Lowenthal
- U.S. Congressman Ed Royce
- U.S. Congressman Raul Ruiz
- U.S. Congresswoman Loretta Sanchez
- U.S. Congressman Mark Takano
- U.S. Congresswoman Mimi Walters
- State Senator Ed Hernandez
- State Senator Bob Huff
- State Senator Mike Morrell
- State Senator John Moorlach
- State Senator Richard Roth
- State Senator Jeff Stone
- Assembly Member Travis Allen
- Assembly Member Cheryl Brown
- Assembly Member Autumn Burke
- Assembly Member Ed Chau
- Assembly Member Ling Ling Chang
- Assembly Member Tom Daly
- Assembly Member Rodger Hernandez
- Assembly Member Chris Holden
- Assembly Member Young Kim
- Assembly Member Eric Linder
- Assembly Member Chad Mayes
- Assembly Member Jose Medina
- Assembly Member Melissa Melendez
- Assembly Member Anthony Rendon
- Assembly Member Don Wagner

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

Anaheim Chamber of Commerce
 Beaumont Chamber of Commerce
 Corona Chamber of Commerce
 Filipino American Chamber of Commerce of Orange County
 Greater Riverside Chamber of Commerce
 Hemet/San Jacinto Chamber of Commerce
 Legislative Affairs Committee of West Orange County
 Norco Chamber of Commerce
 North Orange County Legislative Alliance

Ontario Chamber of Commerce
Orange County Council of Governments
Orange County Transit Agency
Redlands Chamber of Commerce and the Chamber's Teen Council
Riverside Transit Agency (RTA)
San Bernardino Associated Governments
San Bernardino Chamber of Commerce
San Gabriel Valley Economic Partnership
San Gabriel Valley Council of Governments
Southern California Association of Governments
Western Riverside Council of Governments
 – Clean Cities Coalition
Western Riverside Transportation NOW (RTA)
 – Greater Riverside Chapter
 – Hemet/San Jacinto Chapter
 – Moreno Valley/Perris Chapter
 – San Gorgonio Pass Chapter, Beaumont
 – Southwest Chapter, Temecula
Westside Cities Council of Governments
Yucaipa Chamber of Commerce

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

Center for Community Action and Environmental Justice, Coachella Valley
Communities for a Better Environment
Norco Unified School District
Riverside County Health Coalition

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BOARD MEETING DATE: November 6, 2015

AGENDA NO. 18

REPORT: Hearing Board Report

SYNOPSIS: This reports the actions taken by the Hearing Board during the period of September 1 through September 30, 2015.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file this report.

Edward Camarena
Chairman of Hearing Board

SM

Two summaries are attached: **Rules From Which Variances and Orders for Abatement Were Requested in 2015** and **September 2015 Hearing Board Cases**.

The total number of appeals filed during the period September 1 to September 30, 2015 is 0; and total number of appeals filed during the period of January 1 to September 30, 2015 is 1.

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
# of HB Actions Involving Rules														
109														0
109(c)														0
109(c)(1)														0
201														0
201.1														0
202														0
202(a)		1			1		1		1					4
202(b)														0
202(c)														0
203			1											1
203(a)		1	1			3								5
203(b)		5	2	7	4	3	6	5	4	5				41
204														0
208														0
218(c)(1)(B)(i)				1										1
218.1														0
218.1(b)(4)(C)				1										1
218(b)(2)						1								1
218(c)(1)(A)														0
218(d)(1)(A)														0
218(d)(1)(B)														0
219														0
219(s)(2)		1												1
221(b)		1												1
221(c)														0
221(d)		1												1
222			1											1
222(d)(1)(C)														0
222(e)(1)														0
401														0
401(b)														0
401(b)(1)									1					1
401(b)(1)(A)														0
401(b)(1)(B)									1					1
402		1						1						2
403(d)(1)														0
403(d)(1)(A)														0
403(d)(2)														0
404														0
404(a)														0
405														0
405(a)														0
405(b)														0
405(c)														0
407(a)									1					1
407(a)(1)														0

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
407(a)(2)(A)														0
410(d)														0
430(b)(3)(A)(iv)														0
431.1														0
431.1														0
431.1(c)(1)														0
431.1(c)(2)														0
431.1(c)(3)(C)														0
431.1(d)(1)														0
431.1(d)(1), Att A(1)														0
442														0
444														0
444(a)														0
444(c)														0
444(d)														0
461														1
461(c)(1)														0
461(c)(1)(A)														0
461(c)(1)(B)														0
461(c)(1)(C)														0
461(c)(1)(E)														0
461(c)(1)(F)(i)														0
461(c)(1)(F)(iv)														0
461(c)(1)(F)(v)														0
461(c)(1)(H)														0
461(c)(2)														1
461(c)(2)(A)														0
461(c)(2)(B)														1
461(c)(2)(C)														0
461(c)(3)														0
461(c)(3)(A)														0
461(c)(3)(B)														0
461(c)(3)(C)														0
461(c)(3)(D)(ii)														0
461(c)(3)(E)														0
461(c)(3)(H)														0
461(c)(3)(M)														0
461(c)(4)(B)														0
461(c)(4)(B)(ii)														0
461(d)(5)(A)														0
461(e)(1)														0
461(e)(2)														1
461(e)(2)(A)														0
461(e)(2)(A)(i)														0
461(e)(2)(B)(i)														0
461(e)(2)(C)														0
461(e)(3)														0

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
461(e)(3)(A)														0
461(e)(3)(C)(i)(I)														0
461(e)(3)(D)														0
461(e)(3)(E)														0
461(e)(5)														0
461(e)(7)														0
462														0
462(c)(4)(B)(i)														0
462(c)(7)(A)(ii)														0
462(d)														0
462(d)(1)														0
462(d)(1)(A)														0
462(d)(1)(A)(i)														0
462(d)(1)(B)														0
462(d)(1)(C)														0
462(d)(1)(E)(ii)														0
462(d)(1)(F)														0
462(d)(1)(G)														0
462(d)(5)														0
462(e)(1)														0
462(e)(1)(E)														0
462(e)(1)(E)(ii)														0
462(e)(1)(E)(i)(II)														0
462(e)(2)(A)(i)														0
462(e)(4)														0
462(h)(1)														0
463														0
463(c)														0
463(c)(1)														0
463(c)(1)(A)(I)-(iv)														0
463(c)(1)(B)														0
463(c)(1)(C)														0
463(c)(1)(D)														0
463(c)(1)(E)														0
463(c)(2)														0
463(c)(2)(B)														0
463(c)(2)(C)														0
463(c)(3)														0
463(c)(3)(A)														0
463(c)(3)(B)														0
463(c)(3)(C)														0
463(d)														0
463(d)(2)														0
463(e)(3)(C)														0
463(e)(4)														0
463(e)(5)(C)														0
464(b)(1)(A)									1		1			2

Rules from which Variances and Order for Abatements were Requested in 2015														
	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
464(b)(2)									1	1				2
468														0
468(a)														0
468(b)														0
1102														0
1102(c)(2)														0
1102(e)(1)						1								1
1102(f)(1)						1								1
1105.1														0
1105.1(d)(1)(A)(i)														0
1105.1(d)(1)(A)(iii)														0
1106(c)(1)														0
1106.1(c)(1)														0
1106.1(c)(1)(A)														0
1107(c)(1)														0
1107(c)(2)														0
1107(c)(7)														0
1107														0
1110.1														0
1110.2			1							1				2
1110.2(c)(14)														0
1110.2(d)														0
1110.2(d)(1)(A)														0
1110.2(d)(1)(B)														0
1110.2(d)(1)(B)(ii)			1											1
1110.2(d)(1)(D)														0
1110.2(d)(1)(E)														0
1110.2(e)(1)(A)														0
1110.2(e)(1)(B)(i)(II)														0
1110.2(e)(1)(B)(i)(III)														0
1110.2(e)(4)(B)														0
1110.2(f)														0
1110.2(f)(1)(A)														0
1110.2(f)(1)(c)														0
1113(c)(2)														0
1113(d)(3)														0
1118(c)(4)														0
1118(c)(5)														0
1118(d)(1)(2)														0
1118(d)(1)(2)														0
1118(d)(2)														0
1118(d)(3)														0
1118(d)(4)(B)														0
1118(d)(5)(A)														0
1118(d)(5)(B)														0
1118(d)(10)														0
1118(d)(12)														0

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1118(e)														0
1118(f)(1)(C)		1												1
1118(g)(3)					1									1
1118(g)(5)														0
1118(g)(5)(A)					1									1
1118(i)(5)(B)(i)														0
1118(i)(5)(B)(ii)														0
1118(j)(1)(A)(ii)														0
1118(j)(1)(B)(ii)														0
1118(j)(1)(C)														0
1121(c)(2)(C)														0
1121(c)(3)														0
1121(c)(6)														0
1121(c)(7)														0
1121(c)(8)														0
1121(e)(3)														0
1121(h)														0
1121(h)(1)														0
1121(h)(2)														0
1121(h)(3)														0
1122(c)(2)(A)														0
1122(c)(2)(E)														0
1122(d)(1)(A)														0
1122(d)(1)(B)														0
1122(d)(3)														0
1122(e)(2)(A)														0
1122(e)(2)(B)														0
1122(e)(2)(C)														0
1122(e)(2)(D)														0
1122(e)(3)														0
1122(e)(4)(A)														0
1122(e)(4)(B)														0
1122(g)(3)														0
1122(j)														0
1124														0
1124(c)(1)(A)														0
1124(c)(1)(E)														0
1124(c)(4)(A)														0
1125(c)(1)														0
1125(c)(1)(C)														0
1125(d)(1)														0
1128(c)(1)														0
1128(c)(2)														0
1130														0
1130(c)(1)														0
1130(c)(4)														0
1131														0

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1131(d)														0
1132(d)(2)														0
1132(d)(3)														0
1133(d)(8)														0
1133.2(d)(8)														0
1134(c)														0
1134(c)(1)														0
1134(d)														0
1134(d)(1)														0
1134(d)(2)(B)(ii)														0
1134(f)														0
1134(g)(2)														0
1135(c)(3)														0
1135(c)(3)(B)														0
1135(c)(3)(C)														0
1135(c)(4)														0
1135(c)(4)(D)														0
1136														0
1136(c)(1)(A)(i)														0
1137(d)(2)														0
1145														0
1145(c)(1)														0
1145(c)(2)														0
1145(g)(2)														0
1145(h)(1)(E)														0
1146						1								1
1146(c)(1)(A)				1										1
1146(c)(1)(G)			1				1							2
1146(c)(1)(I)				1										1
1146(c)(2)														0
1146(c)(2)(A)														0
1146(d)(8)														0
1146.1														0
1146.1(a)(2)														0
1146.1(a)(8)														0
1146.1(b)(3)														0
1146.1(c)(1)														0
1146.1(c)(2)														0
1146.1(d)(4)														0
1146.1(d)(6)														0
1146.1(e)(1)														0
1146.1(e)(1)(B)														0
1146.1(e)(2)														0
1146.2														0
1146.2(c)(1)		1												1
1146.2(c)(4)		1	1											2
1146.2(c)(5)		1												1

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1146.2(e)														0
1147		1				1								2
1147(c)(1)								2						2
1147(c)(10)														0
1147(c)(14)(B)														0
1150.1(d)(1)(C)(i)		1												1
1150.1(d)(4)														0
1150.1(d)(5)														0
1150.1(d)(10)														0
1150.1(d)(11)														0
1150.1(d)(12)														0
1150.1(d)(13)														0
1150.1(d)(14)														0
1150.1(e)(1)														0
1150.1(e)(2)														0
1150.1(e)(3)														0
1150.1(e)(1)(B)(C)														0
1150.1(e)(1)(C)														0
1151.1(e)(2)(B)(C)														0
1150.1(e)(2)(C)														0
1150.1(e)(3)(B)														0
1150.1(e)(3)(B)(C)														0
1150.1(e)(3)(C)														0
1150.1(e)(4)														0
1150.1(e)(6)(A)(I)														0
1150.1(e)(6)(A)(ii)														0
1150.1(f)(1)(A)(iii)(I)														0
1150.1(f)(1)(H)(i)														0
1151														0
1151(c)(8)														0
1151(2)														0
1151(5)														0
1151(d)(1)														0
1151(e)(1)														0
1151(e)(2)														0
1151(f)(1)														0
1153(c)(1)														0
1153(c)(1)(B)														0
1156(d)(5)(C)(i)														0
1158														0
1158(d)(2)														0
1158(d)(5)														0
1158(d)(7)														0
1158(d)(7)(A)(ii)														0
1158(d)(10)														0
1164(c)(1)(B)														0
1164(c)(2)														0

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1166(c)(2)														0
1166(c)(2)(F)														0
1166, Part 12				1										1
1168														0
1168(c)(1)														0
1169(c)(13)(ii)														0
1171														0
1171(c)														0
1171(c)(1)														0
1171(c)(1)(A)(i)														0
1171(c)(1)(b)(i)														0
1171(c)(4)														0
1171(c)(5)														0
1171(c)(5)(A)(i)														0
1171(c)(6)														0
1173														0
1173(c)														0
1173(d)														0
1173(e)(1)														0
1173(f)(1)(B)														0
1173(g)														0
1175														0
1175(c)(2)														0
1175(c)(4)(B)														0
1175(c)(4)(B)(i)														0
1175(c)(4)(B)(ii)														0
1175(c)(4)(B)(ii)(I)														0
1175(b)(1) (C)														0
1175(d)(4)(ii)(II)														0
1176														0
1176(e)														0
1176(e)(1)									1	1				2
1176(e)(2)														0
1176(e)(2)(A)														0
1176(e)(2)(A)(i)									1	1				2
1176(e)(2)(B)(v)									1	1				2
1176(f)(3)														0
1177(d)(2)(D)														0
1178(d)(1)(A)(xiii)														0
1178(d)(1)(A)(xiv)														0
1178(d)(1)(B)														0
1178(d)(1)(C)														0
1178(d)(3)(C)														0
1178(d)(3)(D)														0
1178(d)(3)(E)														0
1178(d)(4)(A)(i)														0
1178(g)														0

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1186.1														0
1186.1														0
1189(c)(3)														0
1195														0
1195(d)(1)(D)														0
1303(a)														0
1303(a)(1)														0
1303(b)(1)														0
1401														0
1401(d)														0
1401(d)(1)(A)														0
1401(d)(1)(B)														0
1405(d)(3)(C)														0
1407(d)														0
1407(d)(1)														0
1407(d)(2)														0
1407(d)(5)		1					1							2
1407(f)(1)														0
1415(d)(3)														0
1418(d)(2)(A)														0
1420(d)(1)		1												1
1420.1(f)(3)														0
1420.1(g)(4)														0
1420.1(k)(13)(B)														0
1421(d)														0
1421(d)(1)(C)														0
1421(d)(1)(G)														0
1421(d)(3)(A)														0
1421(e)(2)(c)														0
1421(e)(1)(A)(vii)														0
1421(e)(3)(B)														0
1421(h)(1)(A)														0
1421(h)(1)(B)														0
1421(h)(1)(C)														0
1421(h)(1)(E)														0
1421(h)(3)														0
1421(i)(1)(C)														0
1425(d)(1)(A)														0
1469														0
1469(c)														0
1469(c)(8)														0
1469(c)(11)(A)														0
1469(c)(13)(ii)														0
1469(d)(5)														0
1469(e)(1)														0
1469(e)(7)														0
1469(g)(2)														0

Rules from which Variances and Order for Abatements were Requested in 2015

	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1469(h)														0
1469(l)														0
1469(j)(4)(A)														0
1469(j)(4)(D)														0
1469(k)(3)(A)														0
1470														0
1470(c)(2)(C)(i)(I)														0
1470(c)(2)(C)(iv)														0
1470(c)(3)(B)(ii)						1								1
1470(c)(3)(C)(iii)						4	1							5
1470(c)(4)														0
1470(c)(4)(B)				1										1
1470(c)(5)														0
1470(d)(2)(B)														0
1470(e)(2)(A)														0
2004(c)(1)		3						3						6
2004(c)(1)(C)														0
2004(f)(1)				4	2	1	2		2	3				14
2004(f)(2)														0
2004(k)														0
2005														0
2009(b)(2)														0
2009(c)														0
2009(f)(1)														0
2009(f)(2)														0
2009.1														0
2009.1(c)														0
2009.1(f)(1)														0
2009.1(f)(2)														0
2009.1(f)(3)														0
2011														0
2011 Attachment C														0
2011(c)(2)								1		1				2
2011(c)(2)(A)					1									1
2011(c)(2)(B)														0
2011(c)(3)(A)					1									1
2011(e)(1)														0
2011(f)(3)														0
2011(g)														0
2011(g)(1)														0
2011(k)								1						1
2011(k) Appen. A, Chap. 2, except E & Attach C														0
2011(k) Appen. A, Chap. 2, Section A.3 a-c, A.5 and B. 1-4 and Appen. A, Chap. 2, Section C.2.a, c & d														0
2011, Appen. A, Attach. C, Section B.2.a.								1						1
2012 Chapter 2														0
2012 Attach. C, B.2.a														0

Rules from which Variances and Order for Abatements were Requested in 2015														
	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
2012 Appen. A, Attach. C, Section B.2.				1										1
2012 Appen. A, Attach. C, Section B.2.a. & b.														0
2012 Appen. A														0
2012 Appen. A, Chap. 2														0
2012 Appen A, Chap. 2, Sec. A														0
2012 Appen A, Chap. 2, Sec. A(1)						1								1
2012 Appen A, Chap. 2, Sec. B														0
2012, Appen. A, Protocol 2012, Chap. 2, B.5.														0
2012, Appen A, Chap. 2, B.5.a														0
2012, Appen A, Chap. 2, B.10														0
2012, Appen A, Chap. 2, B.11														0
2012, Appen A, Chap. 2, B.12														0
2012, Appen A, Chap. 2, B.17				1										1
2012, Appen A, Chap.2, B.18														0
2012, Appen A, Chap.2, B.20														0
2012, Chapter 2, E.2.b.i.														0
2012, Chapter 2, E.2.b.ii.														0
2012 Appen A, Chap. 4.A.4														0
2012(B)(5)(e)														0
2012(c)(2)(A)					1	1								2
2012(c)(2)								1		1				2
2012(c)(3)														0
2012(c)(3)(A)					1	1								2
2012(c)(3)(B)														0
2012(c)(10)														0
2012(d)(2)														0
2012(d)(2)(A)														0
2012(d)(2)(D)														0
2012(f)(2)(A)				1										1
2012(g)(1)				1		1								2
2012(g)(3)														0
2012(g)(7)														0
2012(h)(3)														0
2012(h)(4)														0
2012(h)(5)														0
2012(h)(6)														0
2012(i)														0
2012(j)(1)														0
2012(j)(2)														0
2012, Protocol (Appen. A) Chap. 2, Part A.1.a														0
2012, Protocol (Appen. A) Chap. 2, Part B.4														0
2012, Protocol, (Appen A) Chap. 2, Part B.5.e														0
2012 Chapter 2, B.5.f														0
2012(m)														0
2012(m) Table 2012-1, and Appen. A, Chp 2, & Attachment C														0
2012(m) Appen. A, Attach. C														0
2012(m) Appen. A, Chap. 2, Sections 2.A.1 a-c, e.g,														0

Rules from which Variances and Order for Abatements were Requested in 2015														
	2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
and B. 1-4 and Appendix A, Chapter 3, Section C.2 a, c & d														0
2012(m) Appen. A, Chap 3, Section (A)(6)														0
2012(m) Appen. A, Chap 5, Para G, Table 5B and Att. D														0
2202				1										1
3002				1										1
3002(c)														0
3002(c)(1)		3	1	3		1	2	3	2	4				19
3002(c)(2)														0
3004										1				1
Regulation II														0
Regulation IX														0
Regulation IX, 40 CFR Part 60, Subpart J														0
Regulation XI														0
Regulation XIII														0
H&S 39152(b)														0
H&S 41510														0
H&S 41700		1												1
H&S 41701									2					2
H&S 93115.6(c)(2)(C)(1)														0
H&S 42303														0
Title 13 Code of Regulations §2452														0

Report of September 2015 Hearing Board Cases

Case Name and Case No.	Rules	Reason for Petition	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
1. Chevron Products Company Case No. 831-376 (Consent Calendar V. Tyagi)	203(b) 464(b)(1)(A) 464(b)(2) 1176(e)(1) 1176(e)(2)(A)(i) 1176(e)(2)(B)(v) 2004(f)(1) 3002(c)(1)	Oil water separator must be taken out of service for maintenance.	Not Opposed/Granted	SV granted commencing 10/1/15 and continuing through 10/15/15.	VOC: 7lbs/total
2. Chevron Products Company Case No. 831-377 N. Feldman	203(b) 2004(f)(1) 2011(c)(2) 2012(c)(2) 3002(c)(1)	Aging BTU analyzer must be taken out of service to make room for its upgraded replacement.	Not Opposed/Granted	SV granted commencing on 9/21/15 allowing 14 consecutive days of non-compliance continuing through 10/18/15.	None
3. Eastern Municipal Water District Case No. 4937-55 S. Hanizavareh	203(b) 3002(c)(1)	Digester gas flare failed to ignite. Could not be repaired promptly.	Not Opposed/Granted	Ex Parte EV granted commencing 9/4/15 and continuing for 30 days or until the EV hearing currently scheduled for 9/9/15, whichever comes first.	VOC and H2S: TBD by 9/23/15
4. SCAQMD vs, Z & R Oil Company Case No. 5464-4 B. Wong	203(b) 461(c)(2) 461(c)(2)(B)	Protracted history of noncompliance with GDF requirements.	Stipulated/Issued	O/A issued commencing 9/17/15 and continuing through 9/17/17. The Hearing Board shall retain jurisdiction over this matter until 9/17/17.	N/A
5. Southern California Edison (SCE) Case No. 1262-110 M. Reichert	203(b) 1110.2 2004(f)(1) 3002(c)(1) 3004	Diesel fueled ICE is out of service for repairs and is not available for required periodic testing.	Not Opposed/Granted	IV granted commencing 10/1/15 and continuing through 10/31/15 or until the SV hearing currently scheduled for 10/13/15, whichever occurs first.	None.

Acronyms

EV: Emergency Variance
 GDF: Gasoline Dispensing Facility
 H2S: Hydrogen Sulfide
 ICE: Internal Combustion Engine
 MFCD/EXT: Modification of a Final Compliance Date and Extension of a Variance
 NOx: Oxides of Nitrogen
 O/A: Order for Abatement
 RV: Regular Variance
 SV: Short Variance
 TBD: To be determined
 VOC: Volatile Organic Compounds

[↑ Back to Agenda](#)

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 19

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS: This reports the monthly penalties from September 1 through September 30, 2015, and legal actions filed by the General Counsel's Office from September 1 through September 30, 2015. An Index of District Rules is attached with the penalty reports.

COMMITTEE: Stationary Source, October 16, 2015, Reviewed

RECOMMENDED ACTION:

Receive and file this report.

Kurt R. Wiese
General Counsel

KRW:lc

No Civil Filings

Attachments

September 2015 Penalty Reports

Index of District Rules and Regulations

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office**

September 2015 Settlement Penalty Report

Total Penalties

Civil Settlements:	\$142,400.00
MSPAP Settlements:	\$46,950.00
Hearing Board Settlements:	\$6,200.00
Total Cash Settlements:	\$195,550.00
Total SEP Value:	\$0.00
Fiscal Year through September 2015 Cash Total:	\$878,526.00
Fiscal Year through September 2015 SEP Value Only Total:	\$0.00

FAC ID	COMPANY NAME	RULE NUMBER	SETTLED DATE	ATTY INT	NOTICE NO.	TOTAL SETTLEMENT
CIVIL SETTLEMENTS:						
104017	AERA ENERGY LLC	2004	9/2/2015	ML	P56978	\$500.00
131310	BECTON DICKINSON & CO, BD DISTRIBUT	203	9/18/2015	BTG	P61556	\$21,500.00
164902	CENTRAL VILLAGE APARTMENTS	203 (A), 1470	9/8/2015	NSF	P58427	\$6,000.00
177014	DAR PRO SOLUTIONS	402 402, 41700 402, 41700 402, 41700 402, 41700 402, 41700	9/18/2015	KCM	P61550 P58281 P60415 P60414 P60413 P60411	\$4,800.00
151388	FRY'S 405 FREEWAY SHELL	461	9/2/2015	KCM	P60821	\$1,000.00
44790	GLENDALE COMMUNITY COLLEGE	222, 1146.2, 1415 1415, 1146.2	9/11/2015	NAS	P58593 P58598	\$2,000.00
166888	KIA'S SERVICE STATION	203 (B)	9/8/2015	NSF	P53013	\$11,000.00
103684	L A CO FIRE STATION #181	461	9/16/2015	LBN	P59474	\$1,000.00
117882	NELSON NAMEPLATE COMPANY	1147, 3002	9/2/2015	NAS	P59373	\$20,000.00
129660	NM MID VALLEY GENCO LLC	203, 3002	9/16/2015	NAS	P54926	\$2,500.00

FAC ID	COMPANY NAME	RULE NUMBER	SETTLED DATE	ATTY INT	NOTICE NO.	TOTAL SETTLEMENT
59618	PACIFIC CONTINENTAL TEXTILES, INC.	2004, 2012	9/16/2015	BTG	P54973	\$9,000.00
6331	PATTON STATE HOSPITAL	42401	9/25/2015	TRB	P62001	\$2,500.00
126498	STEELSCAPE, INC	2004(F)(1), 3002(C)(1)	9/16/2015	KCM	P61609	\$1,600.00
123715	STERLING INTERNATIONAL TOWERS Associated with Order for Abatement Case No. 6029-1	1470 1470	9/8/2015	MJR	P61225 P61242	\$1,500.00
179588	THE GEIGER & COPEs FAMILY TRUSTS	1403	9/2/2015	WBW	P61073	\$1,000.00
43436	TST, INC.	2012	9/18/2015	NSF	P56325	\$2,500.00
800265	UNIVERSITY OF SOUTHERN CALIFORNIA	1146.1	9/2/2015	NSF	P62481	\$36,000.00
56	UNIVERSITY SO CALIFORNIA, HEALTH SCIENCE	203(B), 1146.1(C)(2)	9/2/2015	NSF	P60506	\$18,000.00

TOTAL CIVIL SETTLEMENTS: \$142,400.00

MSPAP SETTLEMENTS:

155088	4701 SLAUSON INC.	461, 41960.2	9/9/2015		P61761	\$400.00
129762	ACHAMAK-TRADING	461	9/30/2015		P59798	\$390.00
158277	ADAM SERVICES	203(B), 461	9/23/2015		P59319	\$1,800.00

FAC ID	COMPANY NAME	RULE NUMBER	SETTLED DATE	ATTY INT	NOTICE NO.	TOTAL SETTLEMENT
178889	AFCO DEVELOPMENT INC.	403	9/16/2015		P61715	\$1,660.00
179916	ALPHA MATERIALS, INC.	203 (A)	9/16/2015		P62015	\$550.00
116924	AMPHASTAR PHARMACEUTICAL, INC.	1470	9/30/2015		P62019	\$960.00
177977	APRO LLC DBA UNITED OIL #171	461(C) , 41960.2	9/25/2015		P61256	\$550.00
129251	ASCO LLC, ARCO	461, 41960.2	9/23/2015		P59787	\$450.00
177214	BIG BEAR CHEVRON, ANDRE ZAKARIAN	461	9/30/2015		P59794	\$330.00
152816	BROTHER'S FLEET PAINTING	203(A)	9/22/2015		P62010	\$550.00
177756	CHANDLER'S RIO SANTIAGO	1157, 403(D)(1), 403(D)(2)	9/16/2015		P60410	\$4,785.00
180019	CHEM LINK INC.	1168	9/25/2015		P44899	\$1,375.00
170636	CITADEL OUTLETS, CRAIG REALTY GROUP	203(A). 203(B), 1415, 1470	9/9/2015		P62376	\$3,200.00
178532	DOUBLETREE BY HILTON	203	9/11/2015		P60966	\$700.00
13854	EAST LOS ANGELES COLLEGE	3002(C)(1)	9/30/2015		P60505	\$2,000.00
175450	EL MONTE GREEN PETROLEUM	461 (E) (2)	9/30/2015		P61958	\$1,200.00
117767	FOOD N' FUEL	203(B), 461	9/2/2015		P60910	\$600.00
117767	FOOD N' FUEL	203(B), 461	9/2/2015		P60924	\$200.00

FAC ID	COMPANY NAME	RULE NUMBER	SETTLED DATE	ATTY INT	NOTICE NO.	TOTAL SETTLEMENT
130686	HASSAN & SONS INC, FONTANA CHEVRON	461(C)	9/25/2015		P60944	\$420.00
160085	HASSAN AND SONS INC, DBA HASSAN 24	461	9/25/2015		P60822	\$1,300.00
170643	I & S MINIMARKET CORPORATION	203(B), 461(C)(2)(B)	9/18/2015		P62428	\$760.00
103440	KSC AND SON CORPORATION	203 (B), 461	9/25/2015		P59795	\$750.00
145363	KUMHO TIRE USA INC.	203(A), 203 (B)	9/30/2015		P56724	\$200.00
28968	LA CO., FIRE STATION 118	461(E)(2) 461(E)(2)(C) , 461(E)(2) 461 461	9/16/2015		P59636 P59639 P60662 P60663	\$4,750.00
59	LA ODD FELLOWS CEMETERY ASSOCIATION	203 (B), 401(B)	9/30/2015		P62377	\$1,650.00
179613	LIFE CARE CENTER OF MENIFEE	203, 1470	9/30/2015		P61194	\$550.00
153304	MYKC PETRO INC DBA VILLA PARK SHELL	461(E)(2)(A)	9/30/2015		P61685	\$1,100.00
179139	NU FLOW	203 (A)	9/30/2015		P59675	\$1,000.00
115363	PACIFIC PETROLEUM ARCO	461, 41954, 41960.2	9/8/2015		P61668	\$700.00
69572	RANCHO SAN ANTONIO MED CENTER	1146.2	9/30/2015		P62007	\$2,200.00
53351	REDLANDS AVIATION CORPORATION	461	9/9/2015		P61555	\$550.00

FAC ID	COMPANY NAME	RULE NUMBER	SETTLED DATE	ATTY INT	NOTICE NO.	TOTAL SETTLEMENT
114570	ROBERT H PETERSON COMPANY	203 (B)	9/30/2015		P56733	\$1,500.00
52607	THE BEVERLY CLEANERS	203(B), 1421	9/2/2015		P60135	\$720.00
162364	TONY PARK 76	461(C)(2)(B), 41960.2	9/9/2015		P59329	\$600.00
144681	WARREN E&P, INC.	1148.2	9/18/2015		P60713	\$6,500.00

MSPAP SETTLEMENTS: \$46,950.00

HEARING BOARD SETTLEMENTS:

35188	3M COMPANY Hearing Board Case No. 5970-2 Penalty for ongoing operation of the facility's equipment in noncompliance. Final payment; compliance achieved.	203, 1147. 3002	9/11/2015	KCM	HRB2288	\$4,000.00
72040	KTLA INC. Hearing Board Case No. 6027-1 \$100/month until noncompliant generator is removed from service and replaced with a compliant generator.	1470	9/25/2015	RRF	HRB2289	\$100.00
72040	KTLA INC. Hearing Board Case No. 6027-1 \$100/month until noncompliant generator is removed from service and replaced with a compliant generator.	1470	9/25/2015	RRF	HRB2290	\$100.00

FAC ID	COMPANY NAME	RULE NUMBER	SETTLED DATE	ATTY INT	NOTICE NO.	TOTAL SETTLEMENT
159199	SIC/LEED 1015 SANTA ANA LLC Hearing Board Case No. 6009-1 Beginning 1.1.15 through period of the Order for Abatement, should facility operate the emergency engine identified in the Order, facility will pay \$500/month.	1470	9/2/2015	TRB	HRB2286	\$500.00
123715	STERLING INTERNATIONAL TOWERS Hearing Board Case No. 6029-1 Penalties for ongoing operation of the ICE during the terms of the Stipulated Order for Abatement in the amount of \$1500/month.	1470	9/8/2015	MJR	HRB2287	\$1,500.00

TOTAL HEARING BOARD SETTLEMENTS: \$6,200.00

DISTRICT RULES AND REGULATIONS INDEX FOR SEPTEMBER 2015 PENALTY REPORTS

REGULATION II – PERMITS

List and Criteria Identifying Information Required of Applicants Seeking A Permit to Construct from the South Coast Air Quality Management - District (*Amended 4/10/98*)

- Rule 203 Permit to Operate (*Amended 1/5/90*)
- Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written permit Pursuant to Regulation II. (*Amended 5/19/00*)

REGULATION IV - PROHIBITIONS

- Rule 401 Visible Emissions (*Amended 9/11/98*)
- Rule 402 Nuisance (*Adopted 5/7/76*)
- Rule 403 Fugitive Dust (*Amended 12/11/98*) *Pertains to solid particulate matter emitted from man-made activities.*
- Rule 461 Gasoline Transfer and Dispensing (*Amended 6/15/01*)

REGULATION XI - SOURCE SPECIFIC STANDARDS

- Rule 1146.1 Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters (*Amended 5/13/94*)
- Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers (*Adopted 1/9/98*)
- Rule 1147 NOx REDUCTIONS FROM MISCELLANEOUS SOURCES (9/08)
- Rule 1148.2 Hydraulic Fracturing of Oil and Gas Wells (Susan)
- Rule 1157 PM10 Emission Reductions From Aggregate And Related Operations
- Rule 1168 Adhesive and Sealant Applications (*Amended 9/15/00*)

REGULATION XIV - TOXICS

- Rule 1403 Asbestos Emissions from Demolition/Renovation Activities (*Amended 4/8/94*)
- Rule 1415 Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems (*Amended 10/14/94*)
- 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 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

- 41700 Violation of General Limitations
- 41954 Compliance for Control of Gasoline Vapor Emissions
- 41960.2 Gasoline Vapor Recovery
- 42401 Violation of Order for Abatement

CALIFORNIA CODE OF REGULATIONS

- Title 13 Mobile Sources and Fuels
- PERP 2460 Portable Equipment Testing Requirements

[↑ Back to Agenda](#)

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 20

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 September 1, 2015 and September 30, 2015, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: Mobile Source, October 16, 2015, Reviewed

RECOMMENDED ACTION:
Receive and file.

Barry R. Wallerstein, D.Env.
Executive Officer

PF:JW:IM:JW:AK

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 of September 1, 2015 and September 30, 2015 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.

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 September 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. Staff will continue compiling tables of mitigation measures for other emission sources, including airport ground support equipment, etc.

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 September 1, 2015 through September 30, 2015, the SCAQMD received 72 CEQA documents. Of the total of 86 documents* listed in Attachments A and B:

- 23 comment letters were sent;
- 32 documents were reviewed, but no comments were made;
- 20 documents are currently under review;
- 8 documents did not require comments (e.g., public notices, plot plans, Final Environmental Impact Reports);
- 0 documents were not reviewed; and
- 3 documents were screened without additional review.

* These statistics are from September 1, 2015 to September 30, 2015 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. During September, one Lead Agency project was released to the public for review. As noted in Attachment C, the SCAQMD continued working on the CEQA documents for six active projects during September.

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
INCOMING CEQA DOCUMENTS LOG
SEPTEMBER 1, 2015 TO SEPTEMBER 30, 2015**

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Waste and Water-related</i> LAC150902-05 Civic Center Wastewater Treatment Facility	This document consists of a Commission notification of appeal. The proposed project consists of the construction of a new wastewater collection system, a centralized wastewater treatment facility to treat wastewater flows from phase one prohibition area properties, a new recycled water pipeline system to provide non potable recycled water for reuse, and ancillary facilities. The coastal development permit decision has been appealed to the California Coastal Commission. Comment Period: N/A Public Hearing: 10/6/2015	Other	City of Malibu	Document does not require comments
<i>Waste and Water-related</i> LAC150908-02 Butterfield Property	The proposed project consists of a draft Removal Action Workplan that identifies ways to clean up chemicals in oil, soil vapors and groundwater at 590 S. Sante Fe Ave. Comment Period: 9/8/2015 - 10/7/2015 Public Hearing: N/A	Community Notice	Department of Toxic Substances Control	Document reviewed - No comments
<i>Waste and Water-related</i> LAC150924-11 Cleanup Plan for Soil Gas at the Former Crown Coach	The proposed project consists of a plan to clean up soil gas contamination at the former Crown Coach facility in Los Angeles. Comment Period: 9/24/2015 - 10/23/2015 Public Hearing: N/A	Community Notice	Department of Toxic Substances Control	Document reviewed - No comments
<i>Waste and Water-related</i> LAC150925-01 r Planet Earth Los Angeles, LLC - Recycling Facility	The proposed project consists of a Conditional Use Permit to construct and operate a recycling and packing manufacturing facility at 3200 Fruitland Avenue. The project involves processing baled postconsumer PET for recycling. Comment Period: 9/24/2015 - 10/29/2015 Public Hearing: N/A	Notice of Availability of a Draft Mitigated Negative Declaration	City of Vernon	Preparing written comments
<i>Waste and Water-related</i> LAC150930-01 Santa Clarita Valley Sanitation District Chloride Compliance Supplemental Environmental Impact Report for Brine Concentration and Limited Trucking	The proposed project consists of modifications to the approved chloride compliance project by replacing brine disposal by deep well injection with brine concentration equipment at the Valencia Water Reclamation Plant (VWRP), a truck loading station at the VWRP, and limited brine trucking to an existing industrial facility. The proposed project is located at 28185 The Old Road in unincorporated Los Angeles County. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2015/september/nopscvalleysanitation.pdf Comment Period: 9/30/2015 - 10/18/2015 Public Hearing: 10/1/2015	Notice of Preparation	Sanitation Districts of Los Angeles County	SCAQMD staff commented 9/30/2015

- 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
INCOMING CEQA DOCUMENTS LOG
SEPTEMBER 1, 2015 TO SEPTEMBER 30, 2015**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Waste and Water-related</i> LAC150930-03 Univar USA Inc. to Perform Soil Vapor Sampling	The proposed project consists of soil sampling activities at and near the former Univar USA, Inc. The work is being performed by Univar as part of the ongoing corrective action activities at the site which is located on adjacent parcels on land at 1363 S. Bonnie Beach Place and 4256 Noakes Street, Los Angeles. The work involves installation of eight soil vapor wells to about five feet in depth and then collecting vapor samples from the wells. Comment Period: N/A Public Hearing: N/A	Other	Department of Toxic Substances Control	Document reviewed - No comments
<i>Waste and Water-related</i> LAC150930-05 Los Angeles River Ecosystem Restoration Project	This document consists of a Final Integrated Feasibility Report. The proposed project consists of ecosystem restoration for an approximately 11-mile stretch of Los Angeles River, from Griffith Park to Downtown Los Angeles. The recommended plan for ecosystem restoration includes restoration of habitat within 719 acres and consideration of opportunities for compatible recreation. Reference LAC130919-04	Other	U.S. Army Corps of Engineers, Los Angeles District	Document reviewed - No comments
<i>Waste and Water-related</i> ORC150908-01 Proposed Removal Action Workplan Former Nabisco Facility (Parcel 1) Buena Park, California	The proposed project consists of a draft Removal Action Workplan to relocate, stockpile, and mitigate the potential for vapor intrusion in order to meet specified residential cleanup goals. Reference ORC140819-02 Comment Period: 9/8/2015 - 10/5/2015 Public Hearing: N/A	Community Notice	Department of Toxic Substances Control	Document reviewed - No comments
<i>Waste and Water-related</i> ORC150917-01 Former Production Planting Facility Huntington Beach	The proposed project consists of a cleanup plan to treat and control chemical contamination at the former Production Plating Facility. The project includes preparation of a Statement of Findings. Reference ORC150814-034 Comment Period: N/A Public Hearing: N/A	Other	Department of Toxic Substances Control	Document does not require comments
<i>Waste and Water-related</i> RVC150902-04 Riverside Agricultural Park	The proposed project consists of removal of soil contaminated with polychlorinated biphenyls at 7020 Crest Avenue, Riverside. Comment Period: N/A Public Hearing: N/A	Community Notice	Department of Toxic Substances Control	Document reviewed - No 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
INCOMING CEQA DOCUMENTS LOG
SEPTEMBER 1, 2015 TO SEPTEMBER 30, 2015**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Waste and Water-related</i> SBC150915-06 Rimforest Storm Drain Project	The proposed project consists of the construction and maintenance of a series of drainage facilities in the community of Rimforest, to address historic erosion and landsliding problems that have led to significant bluff retreat in the southern Rimforest. Comment Period: 9/10/2015 - 10/26/2015 Public Hearing: N/A	Draft Environmental Impact Report	County of San Bernardino	Document reviewed - No comments
<i>Utilities</i> LAC150908-06 Thermal Energy System (TES) and Chiller Cooling Tower (CCT)	The proposed project consists of adding an underground chilled water thermal energy storage tank (2.0 million gallon capacity) beneath Parking Lot H. An 820-ton chiller, a 500-ton chiller and a new 1,700 gallons per minute cooling tower will provide additional cool water capacity. Comment Period: 9/10/2015 - 10/2/2015 Public Hearing: N/A	Notice of Availability of a Draft Mitigated Negative Declaration	Mt. San Antonio College	Document reviewed - No comments
<i>Utilities</i> LAC150924-08 ENV-2015-1956/ 1701 E. Cesar E. Chavez Ave; Boyle Heights	The proposed project consists of the installation, use and maintenance of an unmanned wireless telecommunication facility with 12 panel antennas, 12 remote radio units with 12 A2 Packs, six raycaps, and one radio equipment cabinet inside existing rooftop equipment shelter, with new 11-foot antenna screens, and one stand-by AC generator, all mounted on the rooftop of the existing 69-foot White Memorial Medical Plaza. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2015/october/mnd20151956.pdf Comment Period: 9/24/2015 - 10/26/2015 Public Hearing: N/A	Notice of Availability of a Draft Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented 10/8/2015
<i>Utilities</i> ODP150916-05 Valero Benicia Crude By Rail Project	The proposed project consists of infrastructure to allow Valero's Benicia refinery to receive up to 70,000 barrels per day of North American crude oil by railcar. Comment Period: 6/17/2014 - 10/30/2015 Public Hearing: N/A	Revised Draft Environmental Impact Report	City of Benicia	Under review, may submit written comments
<i>Transportation</i> LAC150901-07 Replacement Bridge, Cerritos Channel	The proposed project consists of an application from the California Department of Transportation by the Commander, Eleventh Coast Guard District for an extension of time to complete a replacement bridge across a navigable waterway of the Unified States. Comment Period: N/A Public Hearing: N/A	Other	United States Coast Guard	Document does not require comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
SEPTEMBER 1, 2015 TO SEPTEMBER 30, 2015**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Transportation</i> LAC150917-02 Sierra Highway Street Improvements and Pedestrian Bridge Project	The proposed project consists of constructing a pedestrian and bicycle bridge crossing Sierra Highway at Golden Valley Road. Comment Period: 9/17/2015 - 10/15/2015 Public Hearing: N/A	Draft Negative Declaration	City of Santa Clarita	Document reviewed - No comments
<i>Transportation</i> SBC150902-06 Transportation Conformity Working Group - SANBAG TCM Substitution	The proposed project consists of replacing two park and ride lots with a vanpool program in San Bernardino County. EPA concurs that the TCM substitution submitted by the Southern California Association of Governments for SANBAG meets the requirements for substitution of TCMs from an approved State Implementation Plan. Comment Period: N/A Public Hearing: N/A	Other	California Transportation Department	Document does not require comments
<i>Institutional (schools, government, etc.)</i> LAC150908-03 Rancho Mirage High School Video Scoreboard	The proposed project consists of installing a video scoreboard at the Rancho Mirage High School football stadium. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2015/september/nopranchomirage.pdf Comment Period: 9/8/2015 - 10/3/2015 Public Hearing: N/A	Notice of Preparation	City of Palm Springs	SCAQMD staff commented 9/25/2015
<i>Institutional (schools, government, etc.)</i> LAC150918-01 Highlander Hall Demolition Project	The proposed project consists of demolishing Highlander Hall at University of California, Riverside campus as a result of poor seismic rating under current seismic codes and result of a fire at the Human Resources building. The project involves demolishing a total of 61,251 square feet of existing office uses and 8,242 square feet of existing office uses. Upon completion of demolition, the project proposes to construct additional surface parking within a reconfiguration of the existing Parking Lot 50. Comment Period: 9/18/2015 - 10/19/2015 Public Hearing: N/A	Response to Comments	University of California Riverside	Document reviewed - No comments
<i>Institutional (schools, government, etc.)</i> LAC150923-03 Viewpoint School Tennis Courts and Parking Lots Project	The proposed project consists of redeveloping three sites that would become part of the school campus property. Improvements to the sites include installation of six tennis courts and accessory building, additional campus parking in three areas, renovation to accommodate offices for school administration, and renovations to a primary residence of the school principal. Comment Period: 9/22/2015 - 10/22/2015 Public Hearing: N/A	Draft Mitigated Negative Declaration	City of Calabasas	Document reviewed - No 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
INCOMING CEQA DOCUMENTS LOG
SEPTEMBER 1, 2015 TO SEPTEMBER 30, 2015**

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) LAC150924-10 ENV-2014-2392/3407-3415 E First St; 114, 116, 122 & 126 N. Lorena St; Boyle Heights	The proposed project consists of constructing an approximately 90,000-square-foot four- to five-story, mixed-use residential development containing 49 apartment units and approximately 10,000 square feet of ground floor commercial space. Comment Period: 9/24/2015 - 10/14/2015 Public Hearing: N/A	Notice of Availability of a Draft Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments
General Land Use (residential, etc.) LAC150930-02 Long Beach Riverwalk Residential Development Project	The proposed project consists of subdividing a 10.56-acre project site and developing it into a gated residential community containing 131 detached single-family homes at 4747 Daisy Avenue. Reference LAC150506-04 Comment Period: N/A Public Hearing: 10/15/2015	Response to Comments	City of Long Beach	Document reviewed - No comments
General Land Use (residential, etc.) ORC150903-01 Encanto Residential Project	The proposed project consists of the development of a gated residential community consisting of 52 two-story single-family detached residential units at 25192 Commercentre Drive. Comment Period: 9/3/2015 - 10/1/2015 Public Hearing: N/A	Notice of Availability of a Draft Mitigated Negative Declaration	City of Lake Forest	Document reviewed - No comments
General Land Use (residential, etc.) ORC150916-01 2277 Harbor Boulevard Project	The proposed project consists of demolishing the existing motel use, and the construction of a new 224-unit development of luxury apartments at 2277 Harbor Boulevard. Comment Period: 9/11/2015 - 10/12/2015 Public Hearing: 10/12/2015	Draft Mitigated Negative Declaration	City of Costa Mesa	Document reviewed - No comments
General Land Use (residential, etc.) RVC150915-01 MA15088	The proposed project consists of an extension of time for TTM33248 approved by the County of Riverside on 2/4/09 up to three years. AB 208 extended map to 2/4/14; and AB 116 extended map another two years to 2/4/16 at Limonite Avenue between Wineville Avenue and Pats Ranch Road. Comment Period: 9/15/2015 - 9/30/2015 Public Hearing: N/A	Initial Project Consultation	City of Jurupa Valley	Document does not require comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.

Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

**ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
SEPTEMBER 1, 2015 TO SEPTEMBER 30, 2015**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Plans and Regulations</i> SBC150915-02 Hidden Oaks Country Club Specific Plan 13SP01 and Vesting Tentative Tract Map 18869	The proposed project consists of a Specific Plan that serves as a tool to guide implementation of a 107-unit single-family residential subdivision on the approximately 537-acre property. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2015/september/nophidden.pdf Comment Period: 9/15/2015 - 9/23/2015	Notice of Preparation	City of Chino Hills	SCAQMD staff commented 9/25/2015
	Public Hearing: N/A			

- 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
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH SEPTEMBER 30, 2015**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<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>Tesoro Refinery proposes to integrate the Tesoro Wilmington Operations with the Tesoro Carson Operations (former BP Refinery). The proposed project also includes modifications of storage tanks at both facilities, new interconnecting pipelines, and new electrical connections. In addition, Carson's Liquid Gas Rail Unloading facilities will be modified. The proposed project will be designed to comply with the federally mandated Tier 3 gasoline specifications and with State and local regulations mandating emission reductions.</p>	<p>Tesoro Refining and Marketing Company Los Angeles Refinery</p>	<p>Environmental Impact Report (EIR)</p>	<p>A previous Draft Negative Declaration was withdrawn in order for the storage tank project to be analyzed in a new CEQA document that also addresses the Tesoro-BP Refinery Integration Project. A NOP/IS was prepared for the integration project and released for a 30-day public review and comment period from September 10, 2014 to October 10, 2014. 86 comment letters were received, and responses to comments are being prepared. The consultant is preparing a Draft EIR.</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>An Initial Study has been prepared by the consultant and is under review by SCAQMD staff.</p>	<p>Trinity Consultants</p>

A shaded row indicates a new project.

**ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH SEPTEMBER 30, 2015**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
Breitburn Operating LP is proposing to upgrade their fluid handling systems to facilitate an increase in the amount of produced water that can be treated at the site in Sante Fe Springs.	Breitburn Operating LP	Environmental Impact Report (EIR)	The NOP/IS was released for a 30-day public review and comment period from December 4, 2014 to January 2, 2015. Two comment letters were received related to the NOP/IS and responses are being prepared. The Draft EIR was released for 45-day public review and comment period from April 15, 2015 to May 29, 2015. Two comment letters were received relative to the Draft EIR. Responses to the comments have been prepared and provided to the Department of Conservation, Division of Oil, Gas and Geothermal Resources.	Environ
DCOR LLC is proposing to install three flares on their off-shore oil Platform Esther.	DCOR LLC	Mitigated Negative Declaration	A preliminary draft Mitigated Negative Declaration has been prepared by the consultant and is under review by SCAQMD staff.	RBF Consulting
As part of AB 2588 requirements, Hixson Metal Finishing is proposing a Risk Reduction Plan at its Newport Beach facility, which would consist of on-site tank relocation, installation of filtration systems and mesh pads, construction of permanent total enclosures, and installation of covers on wastewater treatment tanks.	Hixson Metal Finishing	To Be Determined	The consultant is currently analyzing the environmental impacts from the proposed project to determine the appropriate CEQA document to be prepared.	Environmental Audit, Inc.

A shaded row indicates a new project.

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BOARD MEETING DATE: November 6, 2015

AGENDA NO. 21

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights SCAQMD rulemaking activities and public workshops potentially scheduled for the year 2015 and portions of 2016.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Barry R. Wallerstein, D.Env.
Executive Officer

PF:JW:AFM:cg/cj

415	Odors from Rendering Facilities
Proposed Rule 415 is moved from December to January 2016 to allow staff additional time to work with stakeholders.	
1113	Architectural Coatings (CTS-01)
Rule 1113 is moved from November to December to provide an opportunity for the Stationary Source Committee to review before setting the Public Hearing date.	
4001*	Backstop to Ensure AQMP Emission Reduction Targets Are Met at Commercial Marine Ports (IND-01)
Proposed Rule 4001 is moved from December to February 2016 to allow staff additional time to work with stakeholders.	

2015 MASTER CALENDAR

Below is a list of all rulemaking activity scheduled for the year 2015. The last four columns refer to the type of rule adoption or amendment. A more detailed description of the proposed rule adoption or amendment is located in the Attachments (A through D) under the type of rule adoption or amendment (i.e. AQMP, Toxics, Other and Climate Change).

**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.

¹Subject to Board approval

California Environmental Quality Act shall be referred to as "CEQA."

Socioeconomic Analysis shall be referred to as "Socio."

2015

December		AQMP	Toxics	Other	Climate Change
1110.2	Emissions from Gaseous and Liquid-Fueled Engines			√	
1113* ⁺¹	Architectural Coatings (CTS-01)	√			
Reg. XX* ⁺¹	Regional Clean Air Incentives Market (RECLAIM) (CMB-01) <i>At the November 6, 2015 Board meeting, staff will recommend that this item be continued to the December 4, 2015 meeting.</i>	√			

2015 TO-BE DETERMINED

TBD		AQMP	Toxics	Other	Climate Change
222	Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation I			√	
224	Incentives for Super-Compliant Technologies			√	
1107	Coating of Metal Parts and Products (CTS-02)			√	
1147	NOx Reductions from Miscellaneous Sources			√	

2015 MASTER CALENDAR (continued)

2015 TO-BE DETERMINED

TBD	(continued)	AQMP	Toxics	Other	Climate Change
1168	Adhesive and Sealant Applications (CTS-02)	√			
1190 Series	Fleet Vehicle Requirements			√	
Reg. XIII	New Source Review			√	
1403	Asbestos Emissions from Demolition/Renovation Activities		√		
1411	Recovery or Recycling of Refrigerants from Motor Vehicle Air Conditioners		√		
1902	Transportation Conformity – Preamble			√	
2511	Credit Generation Program for Locomotive Head End Power Unit Engines			√	
2512	Credit Generation Program for Ocean-Going Vessels at Berth			√	
Reg. XXVII	Climate Change				√

2015 MASTER CALENDAR (continued)

2015 TO-BE DETERMINED

TBD	(continued)	AQMP	Toxics	Other	Climate Change
Reg. IV, IX, X, XI, 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 listed in Table 1 of the December 5, 2014 Rule and Control Measure Forecast and new or amended rules to implement the 2012 AQMP measures in Table 2 of the December 5, 2014 Rule and Control Measure Forecast. The CCP has been updated to include new measures to address toxic emissions in the basin. The CCP includes a variety of measures that will reduce exposure to air toxics from stationary, mobile, and area sources (Table 3 of the December 5, 2014 Rule and Control Measure Forecast). Rule amendments may include updates to provide consistency with CARB Statewide Air Toxic Control Measures.	√	√	√	√
---	Mobile Source Measures	√	√		
---	SIP Implementation	√			

2015 MASTER CALENDAR (continued)

2016

January		AQMP	Toxics	Other	Climate Change
415 ¹	Odors from Rendering Facilities			√	
1161 ⁺	VOC Reductions from Mold Release Agents (CTS-03)	√			
1188 ⁺	VOC Reductions from Vacuum Trucks (FUG-01)	√			
1304.2*	Greenfield or Existing Electrical Generating Facility Fee for Use of Offsets for Load Serving Entities			√	
1304.3*	Greenfield or Existing Electrical Generating Facility Fee for Use of Offsets for Municipalities			√	
1402	Control of Toxic Air Contaminants from Existing Sources		√		
2301 ⁺	Control of Emissions from New or Redevelopment Projects (EGM-01)	√			
February					
219	Equipment Not Requiring a Written Permit Pursuant to Regulation II			√	
416	Odors from Kitchen Grease Processing			√	
1136	Wood Products Coatings (CTS-02)			√	
1450	Control of Methylene Chloride Emissions		√		
4001* ¹	Backstop to Ensure AQMP Emission Reduction Targets Are Met at Commercial Marine Ports (IND-01)	√			
March					
1123 ⁺	Refinery Process Turnarounds (MCS-03)	√			
1430	Control of Toxic Air Contaminants from Metal Forging, Shredding, Grinding and Other Metal Processing Operations		√		
1466	Toxic Air Contaminant Emissions from Decontamination of Soil		√		

2015 MASTER CALENDAR (continued)

2016

April		AQMP	Toxics	Other	Climate Change
1118	Control of Emissions from Refinery Flares			√	√
1171 ⁺	Solvent Cleaning Operations (CTS-02)	√			
1177 ⁺	Liquefied Petroleum Gas Transfer and Dispensing (FUG-02)	√			
May					
1420 ⁺	Emissions Standard for Lead		√		
1430.1	Control of Toxic Air Contaminants from Grinding Operations at Forging Facilities		√		

ATTACHMENT A

AQMP Rule Activity Schedule

This attachment lists those control measures that are being developed into rules or rule amendments for Board consideration that are designed to implement the amendments to the 2012 Air Quality Management Plan.

2015

December	
1113*+1	<p>Architectural Coatings (CTS-01) <i>[Projected Emission Reduction: N/A]</i> Potential amendments may include a backstop provision to address additional potential VOC emission reductions from the small container exemption, high volume categories, and increased fees in Rule 314 – Fees for Architectural Coatings. Additional clarifications will also be considered to address ongoing compliance issues. <i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
Reg. XX*+1	<p>Regional Clean Air Incentives Market (RECLAIM) (CMB-01) <i>[Projected Emission Reduction: 3-5 TPD]</i> Proposed amendments to Regulation XX will seek to implement additional NOx emission reductions. <i>Joe Cassmassi 909.396.3155 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

To-Be Determined 2015

To-Be Determined	
1168	<p>Adhesive and Sealant Applications (CTS-02) <i>[Projected Emission Reduction: N/A]</i> 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>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
Reg. IV, IX, X, XI, XIV, XIV, XX, XXX AND XXXV Rules	<p>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 commitments and/or long-term emission reduction commitments. The associated rule development or amendments include, but are not limited to, SCAQMD existing rules listed in Table 1 of the December 5, 2014 Rule and Control Measure Forecast and new or amended rules to implement the 2012 AQMP measures in Table 2 of the December 5, 2014 Rule and Control Measure Forecast.</p>

ATTACHMENT A

AQMP Rule Activity Schedule (continued)

To-Be Determined 2015

To-Be Determined	(continued)
---	<p>SIP Implementation <i>[Projected Emission Reduction: TBD]</i> The District may adopt additional measures to carry out the State Implementation Plan for PM2.5 or ozone, or other pollutants if required, as deemed necessary to meet commitments and federal requirements. <i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
---	<p>Mobile Source Measures <i>[Projected Emission Reduction: TBD]</i> The District may adopt measures to limit emissions from mobile sources, both on-road and off-road (nonroad) sources, consistent with the Board’s direction to counsel at the October 2014 meeting to explore the District’s regulatory authority over mobile sources. These measures may include but are not limited to, transportation control measures, operational limits, fleet rules, credit generation rules, and indirect source rules, such as an indirect source rule for railyards and/or other sources which attract mobile sources. <i>Henry Hogo 909.396.3184 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

2016

January	
1161 ⁺	<p>VOC Reductions from Mold Release Agents (CTS-03) <i>[Projected Emission Reduction: TBD]</i> The proposed rule will establish requirements for mold release products used in composite, fiberglass, metal and plastic manufacturing, and concrete stamping operations. <i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1188 ⁺	<p>VOC Reductions from Vacuum Trucks (FUG-01) <i>[Projected Emission Reduction: TBD]</i> 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. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT A

AQMP Rule Activity Schedule (continued)

2016

January	(continued)
2301 ⁺	<p>Control of Emissions from New or Redevelopment Projects (EGM-01) <i>[Projected Emission Reduction: Committed to reduce 0.5 tons per day of VOC, 0.8 tons per day of NO_x, and 0.5 tons per day of PM_{2.5} in 2023.]</i></p> <p>The proposed rule will implement AQMP Control Measure EGM-01 – Emission Reductions from New or Redevelopment Projects. Proposed Rule 2301 will consider the co-benefits of VOC, NO_x, and PM_{2.5} emission reductions from the 2012 Regional Transportation Plan/Sustainable Communities Strategy and San Joaquin Valley Air Pollution Control District’s Rule 9510 – Indirect Source Review to meet the “all feasible measures” requirement.</p> <p><i>Henry Hogo 909.396.3184 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
February	
4001* ¹	<p>Backstop to Ensure AQMP Emission Reduction Targets Are Met at Commercial Marine Ports (IND-01) <i>[Projected Emission Reduction: TBD]</i></p> <p>If triggered, the proposed rule will address cost-effective NO_x, SO_x, and PM_{2.5} emission reduction strategies from port-related sources to ensure emission reductions claimed or emission targets assumed in the 2012 AQMP for the 24-hour PM_{2.5} standard are maintained.</p> <p><i>Randall Pasek 909.396.2251 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
March	
1123 ⁺	<p>Refinery Process Turnarounds (MCS-03) <i>[Projected Emission Reduction: N/A]</i></p> <p>Proposed amendments, if needed, 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><i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
April	
1171 ⁺	<p>Solvent Cleaning Operations (CTS-02) <i>[Projected Emission Reduction: Some VOC]</i></p> <p>The proposed amendments will review existing exemptions and include clarifications that may arise due to compliance verification activities or manufacturer and public input, including the sales prohibition clause.</p> <p><i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT A

AQMP Rule Activity Schedule (continued)

2016

April	
1177+	<p>Liquefied Petroleum Gas Transfer and Dispensing (FUG-02) <i>[Projected Emission Reduction: N/A]</i> Potential amendments may be proposed to include additional sources of emissions from the dispensing and transfer of LPG. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT B

Toxics Rule Activity Schedule

This attachment lists those rules or rule amendments for Board consideration that are designed to implement the Air Toxics Control Plan.

To-Be Determined 2015

To-Be Determined	
1403	<p>Asbestos Emissions from Demolition/Renovation Activities <i>[Projected Emission Reduction: N/A]</i> Amendments to Rule 1403 will include specific requirements when conducting asbestos-emitting demolition/renovation activities at schools, daycares, and possibly establishments that have sensitive populations. Amendments may include other provisions to improve the implementation of the rule. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1411	<p>Recovery of Recycling of Refrigerants from Motor Vehicle Air Conditioners <i>[Projected Emission Reduction: TBD]</i> The proposed amendments to Rule 1411 will align with existing Clean Air Act requirements to minimize the release of refrigerants during the servicing of motor vehicle air conditioning, incorporate other clarifications and enhance enforceability. <i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
Reg. IV, IX, X, XI, XIV, XIV, XX, XXX and XXXV Rules	<p>The Clean Communities Plan has been updated to include new measures to address toxic emissions in the basin. The CCP includes a variety of measures that will reduce exposure to air toxics from stationary, mobile, and area sources (Table 3 of the December 5, 2014 Rule and Control Measure Forecast). Rule amendments may include updates to provide consistency with CARB Statewide Air Toxic Control Measures.</p>
---	<p>Mobile Source Measures <i>[Projected Emission Reduction: TBD]</i> The District may adopt measures to limit emissions from mobile sources, both on-road and off-road (nonroad) sources, consistent with the Board's direction to counsel at the October 2014 meeting to explore the District's regulatory authority over mobile sources. These measures may include but are not limited to, transportation control measures, operational limits, fleet rules, credit generation rules, and indirect source rules, such as an indirect source rule for railyards and/or other sources which attract mobile sources. <i>Henry Hogo 909.396.3184 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT B

Toxics Rule Activity Schedule (continued)

2016

January	
1402	<p>Control of Toxic Air Contaminants from Existing Sources <i>[Projected Emission Reduction: TBD]</i> Amendments to Rule 1402 will address revised toxic air contaminant risk guidance that has been approved by OEHHA. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
February	
1450	<p>Control of Methylene Chloride Emissions <i>[Projected Emission Reduction: N/A]</i> Proposed Rule 1450 will establish requirements to control methylene chloride from furniture stripping operations and other sources. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
March	
1430	<p>Control of Toxic Air Contaminants from Metal Forging, Shredding, Grinding and Other Metal Processing Operations <i>[Projected Emission Reduction: TBD]</i> Proposed Rule 1430 will establish emission reduction requirements to control toxic emissions from grinding operations. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1466	<p>Toxic Air Contaminant Emissions from Decontamination of Soil <i>[Projected Emission Reduction: TBD]</i> Proposed Rule 1466 would establish requirements to control toxic metal emissions from activities involving storing, handling and transporting soils with toxic metals. This was previously listed as amendments to Rule 1166. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
May	
1420 ⁺	<p>Emissions Standard for Lead <i>[Projected Emission Reduction: TBD]</i> In October 2008, U.S. EPA lowered the National Ambient Air Quality Standard (NAAQS) for lead from 1.5 to 0.15 ug/m³. Proposed Rule 1420 will establish requirements for smaller lead-emitting sources that are not covered under Rules 1420.1 and Rule 1420.2 to ensure compliance with the lead NAAQS. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1430.1 [*]	<p>Control of Toxic Air Contaminants from Grinding Operations at Forging Facilities <i>[Projected Emission Reduction: TBD]</i> Proposed Rule 1430.1 will establish emission reduction requirements to control toxic emissions from grinding operations at forging facilities. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT C

Other Rule Activity Schedule

This attachments lists rules or rule amendments for Board consideration that are designed to improve rule enforceability, SIP corrections, or implementing state or federal regulations.

2015

December	
1110.2	<p>Emissions from Gaseous- and Liquid-Fueled Engines <i>[Projected Emission Reduction: N/A]</i> The proposed amendments to Rule 1110.2 would potentially extend the compliance date for biogas used to fuel power generators at landfills and municipal waste facilities. The amendment would result in delayed emission reductions. <i>Joe Cassmassi 909.396.3155 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

To-Be Determined 2015

To-Be Determined	
222	<p>Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation I <i>[Projected Emission Reduction: N/A]</i> Amendments to Rule 222 may be proposed to add additional equipment categories to the streamlined filing/registration program of Rule 222. <i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
224	<p>Incentives for Super-Compliant Technologies <i>[Projected Emission Reduction: TBD]</i> This proposed rule will outline strategies and requirements to incentivize the development, establishment and use of super-compliant technologies. It may be considered as a part of Rule 219 amendments or proposed as a separate incentive rule. <i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1107	<p>Coating of Metal Parts and Products <i>[Projected Emission Reduction: N/A]</i> Potential amendments to Rule 1107 would further reduce VOC emissions and improve rule clarity and enforceability. <i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1147	<p>NOx Reductions from Miscellaneous Sources <i>[Projected Emission Reduction: N/A]</i> Amendments may be necessary to address findings of ongoing technology assessment. <i>Joe Cassmassi 909.396.3155 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT C

Other Rule Activity (continued)

To-Be Determined 2015

To-Be Determined	(continued)
1190 Series	<p>Fleet Vehicle Requirements <i>[Projected Emission Reduction: TBD]</i> Amendments to Rule 1190 series fleet rules may be necessary to address remaining outstanding implementation issues and in the event the court's future action requires amendments. In addition, the current fleet rules may be expanded to achieve additional air quality and air toxic benefits. <i>Dean Saito 909.396.2647 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
Reg. XIII	<p>New Source Review <i>[Projected Emission Reduction: TBD]</i> Amendments may be necessary to address U.S. EPA comments on SIP approvability issues and/or requirements. Amendments may also be proposed for clarity and improved enforceability. <i>Tracy Goss 909.396.3106 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1902	<p>Transportation Conformity <i>[Projected Emission Reduction: TBD]</i> Amendments to Rule 1902 may be necessary to bring the District's Transportation Conformity rule in line with current U.S. EPA requirements. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
2511	<p>Credit Generation Program for Locomotive Head End Power Unit Engines <i>[Projected Emission Reduction: TBD]</i> Develop a rule to allow generation of PM mobile source emission reduction credits from Locomotive Head End Power Unit Engines. Credits will be generated by retrofitting engines with PM controls or replacing the engines with new lower-emitting engines. <i>Randall Pasek 909.396.2251 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
2512	<p>Credit Generation Program for Ocean-Going Vessels at Berth <i>[Projected Emission Reduction: TBD]</i> Develop a rule to allow generation of PM, NOx and SOx emission reduction credits from ocean-going vessels while at berth. Credits will be generated by controlling the emissions from auxiliary engines and boilers of ships while docked. <i>Randall Pasek 909.396.2251 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT C

Other Rule Activity (continued)

To-Be Determined 2015

To-Be Determined	(continued)
Reg. IV, IX, X, XI, XIV, XX, XXX and XXXV Rules	<p>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 listed in Table 1 of the December 5, 2014 Rule and Control Measure Forecast and new or amended rules to implement the 2012 AQMP measures in Table 2 of the December 5, 2014 Rule and Control Measure Forecast. The CCP has been updated to include new measures to address toxic emissions in the basin. The CCP includes a variety of measures that will reduce exposure to air toxics from stationary, mobile, and area sources (Table 3 of the December 5, 2014 Rule and Control Measure Forecast). Rule amendments may include updates to provide consistency with CARB Statewide Air Toxic Control Measures.</p>

2016

January	
415 ¹	<p>Odors from Rendering Facilities <i>[Projected Emission Reduction: TBD]</i> Proposed Rule 415 will provide protection to the public from odors created during animal rendering operations. The proposed rule will incorporate a preventative approach to odors by establishing Best Management Practices and will consider enclosure and odor control requirements for the receipt and processing of rendering material and wastewater. The proposed rule may also contain requirements for an Odor Mitigation Plan for continuing odor issues at facilities subject to the rule. <i>Tracy Goss 909.396.3106 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT C

Other Rule Activity (continued)

2016

January	(continued)
1304.2*	<p>Greenfield or Existing Electrical Generating Facility Fee for Use of Offsets for Load Serving Entities <i>[Projected Emission Reduction: TBD]</i> Proposed Rule 1304.2 would provide for new, greenfield or additions at existing electrical generating facilities to access the SCAQMD’s internal offset account, subject to qualifying conditions, eligibility, and the payment of a fee to invest in air quality improvement projects consistent with the AQMP. This rule is a companion to Rule 1304.1 and 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. <i>Tracy Goss 909.396.3106 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1304.3*	<p>Greenfield or Existing Electrical Generating Facility Fee for Use of Offsets for Municipalities <i>[Projected Emission Reduction: TBD]</i> Proposed Rule 1304.3 would provide for new, greenfield or additions at existing electrical generating facilities to access the SCAQMD’s internal offset account, subject to qualifying conditions, eligibility, and the payment of a fee to invest in air quality improvement projects consistent with the AQMP. This rule is a companion to Rule 1304.1 and 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. <i>Tracy Goss 909.396.3106 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
February	
219	<p>Equipment Not Requiring a Written Permit Pursuant to Regulation II <i>[Projected Emission Reduction: N/A]</i> Amendments to Rule 219 may be proposed to exclude equipment with de minimis emissions from the requirement to obtain written permits. <i>Tracy Goss 909.396.3106 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT C

Other Rule Activity (continued)

2016

February	(continued)
416	<p>Odors from Kitchen Grease Processing <i>[Projected Emission Reduction: TBD]</i> Proposed Rule 416 will provide protection to the public from odors created during kitchen grease processing operations. The proposed rule will establish Best Management Practices to address odors created during delivery and processing of trap grease to affected facilities. In addition, the proposed rule will examine enclosure for wastewater treatment operations and filter cake storage. The proposed rule may also contain requirements for an Odor Mitigation Plan for continuing odor issues at facilities subject to the rule. <i>Tracy Goss 909.396.3106 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
1136	<p>Wood Products Coatings <i>[Projected Emission Reduction: TBD]</i> The proposed amendments will include clarifications that may arise due to compliance verification activities or manufacturer and public input, including the sales prohibition clause. <i>Philip Fine 909.396.2239 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
April	
1118	<p>Control of Emissions from Refinery Flares <i>[Projected Emission Reduction: TBD]</i> Amendments may be necessary to address results of the additional analysis required by the adopting resolution for the last amendment. Amendments may also be necessary to implement an AB 32 measure. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

ATTACHMENT D
Climate Change

This attachments lists rules or rule amendments for Board consideration that are designed to implement SCAQMD’s Climate Change Policy or for consistency with state or federal rules.

To-Be Determined 2015

To-Be Determined	
Reg. XXVII	<p>Climate Change <i>[Projected Emission Reduction: TBD]</i> Additional protocols may be added to Rules 2701 and 2702 and amendments to existing rules may be needed to address implementation issues. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>
Reg. IV, IX, X, XI, XIV, XX, XXX and XXXV Rules	<p>Rule developments/amendments may be needed to meet the requirements of state and federal laws related to climate change air pollutants.</p>

2016

April	
1118	<p>Control of Emissions from Refinery Flares <i>[Projected Emission Reduction: TBD]</i> Amendments may be necessary to address findings from the additional analysis required by the adopting resolution for the last amendment. Amendments may also be necessary to implement an AB 32 measure. <i>Susan Nakamura 909.396.3105 CEQA: MacMillan 909.396.3244 Socio: Cassmassi 909.396.3155</i></p>

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 22

REPORT: Approve Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2013-14

SYNOPSIS: This report contains data on the AB 2766 Subvention Fund Program for FY 2013-14 as requested by CARB.

COMMITTEE: Mobile Source, October 16, 2015; Recommended for Approval

RECOMMENDED ACTION:

Approve the Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2013-14, for submittal to CARB.

Barry R. Wallerstein, D.Env.
Executive Officer

PF:JW:CG:KH

Background

In September 1990, Assembly Bill 2766 (AB 2766) was signed into law authorizing a \$2 motor vehicle registration fee surcharge, with a subsequent increase to \$4 in 1992. Section 44223 of the Health & Safety (H&S) Code, enacted by AB 2766, specifies that this motor vehicle registration fee be used “...for the reduction of air pollution from motor vehicles pursuant to, and for related planning, monitoring, enforcement, and technical studies necessary for the implementation of the California Clean Air Act of 1988.”

Local jurisdictions receive 40% of the first \$4 of each vehicle registration fee to implement projects that reduce mobile source emissions. The SCAQMD distributes these dollars quarterly to South Coast cities and counties based upon their prorated share of population. In 2004, an additional \$2 surcharge was added pursuant to H&S Code Section 44229 to provide a source of funding for expansion of the Carl Moyer Memorial Air Quality Standards Attainment program. This additional funding will continue to drive early introduction of clean air technology such as cleaner vehicle engines, a Lower-Emission School Bus Program, and accelerated vehicle retirement and repair programs.

Local agencies that are subvented motor vehicle registration fees for air pollution programs report annually to SCAQMD on their use of the fees, and the results of programs funded by the fees. The reporting by local governments follows the guidelines and methodology specified by CARB. The attached report details local government expenditures during FY 2013-14.

Summary of Subvention Fund Program Report

This report accounts for the types of projects, financial expenditures, quantifiable emission reductions and associated cost-effectiveness for projects implemented by local governments through the AB 2766 Subvention Fund Program for FY 2013-14.

The SCAQMD staff provided technical assistance which consisted of meetings with local government staff to address program challenges unique to specific cities/counties, assistance with emission calculations and provided hands-on instructions in the use of the automated reporting system. AB 2766 outreach to local government officials, city managers, and local government staff will continue to be provided by SCAQMD staff, specifically to further encourage implementation of more quantifiable, cost-effective projects that yield direct mobile source emission reductions.

During FY 2013-14, local governments received \$20.3 million from motor vehicle fees and spent \$19.8 million on mobile source emission reduction projects. Approximately \$30 million or 69% of their ending balances (which includes unspent monies from prior years) was pre-designated for future projects, which is a slight decrease from the 72% pre-designation of funds in FY 2012-13. Expenditures in the Alternative Fuels/Electric Vehicles and Transportation Demand Management categories, as in prior years, were the two highest spending categories as many local governments continue to direct their spending priorities to transition to clean fleets and to implement employee rideshare programs.

Quantifiable emission reductions from projects implemented during FY 2013-14 reduced 5,463 (VOC, NO_x, PM₁₀ and CO/7) tons of emissions. The emissions reduced from projects funded had an overall average cost-effectiveness of \$0.82 per pound of emissions reduced. Excluding one outlying Traffic Management project which had a significant effect on the overall cost-effectiveness, the average cost-effectiveness would be \$10.25 per pound, which is just slightly over the \$10 per pound cost-effectiveness threshold established by CARB.

In accordance with H&S Code Section 44244.1, any agency receiving AB 2766 fee revenues is subject to a program or funding audit conducted by an independent auditor selected by the SCAQMD. Further, in response to previous Board concerns raised regarding the pooling of AB 2766 funds between local governments and Councils of Government (COGs), a Summary of COG Activities in the report identifies the

Councils of Government which received AB 2766 subvention funds from member cities and counties, and includes project descriptions along with fund expenditure details.

Proposal

Approve the attached staff report for submittal to CARB.

Attachment

Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2013-14

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
--

Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2013-14

November 6, 2015

Executive Officer

Barry R. Wallerstein, D. Env.

Deputy Executive Officer

Planning, Rule Development & Area Sources

Philip M. Fine, Ph.D.

Assistant Deputy Executive Officer

Planning, Rule Development, and Area Sources

Jill Whynot

Planning and Rules Manager

Carol Gomez

Author:

Kathryn Higgins

Program Supervisor

Reviewed by:

Lauren Nevitt

Senior Deputy District Counsel

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JANICE RUTHERFORD
Supervisor, Second District
County of San Bernardino

EXECUTIVE OFFICER:

BARRY R. WALLERSTEIN, D. Env.

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Annual Report on AB 2766 Funds From Motor Vehicle Registration Fees for FY 2013-14

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Other Information Available on SCAQMD's Website or Upon Request

<http://www.aqmd.gov/home/programs/local-government>

AB 2766 Motor Vehicle Fee Subvention Fund Program Resource Guide

CARB Criteria and Guidelines for the Use of Motor Vehicle Registration Fees

AB 2766 Funds Report from Motor Vehicle Registration Fees – Previous Years Staff Reports

EXECUTIVE SUMMARY

During Fiscal Year 2013-14, 162 local governments in the South Coast Air Districts were eligible to receive AB 2766 Subvention Funds. In summary, these jurisdictions were subvended \$20.3M to implement projects that reduce mobile source emissions. From the funds received, they spent \$19.8M on eligible projects. The two highest spending categories were the Alternative Fuels/Electric Vehicles and Transportation Demand Management (TDM) categories, which represent 61% or about \$12 of the \$19.8 million program expenditures. Traffic management projects represented the bulk of the emissions reduced. In total, local governments implemented 353 projects of which 222 reported quantified emission reductions.

I. BACKGROUND

On-road motor vehicles, including cars, trucks and buses make up the most significant sources of air pollution in the South Coast Air Basin (SCAB). Vehicle emissions from exhaust contribute to unhealthy levels of ozone and toxic air contaminants such as benzene and particulate matter. To protect public health, Assembly Bill 2766 was signed into law in September 1990. Section 44223 of the Health & Safety (H&S) Code authorized a \$2 motor vehicle registration fee surcharge, effective April 1991, to fund the implementation of programs designed to reduce air pollution from motor vehicles and to implement the California Clean Air Act of 1988. H&S Code Section 44225 authorized a subsequent increase in this fee to \$4, effective April 1992. In 2004, an additional \$2 surcharge was added pursuant to H&S Code 44229 to provide a long-term source of funding for expansion of the Carl Moyer Memorial Air Quality Standards Attainment Program and to incentivize early introduction of clean air technology such as cleaner diesel engines, a Lower-Emission School Bus Program and accelerated vehicle retirement and repair programs.

For the first \$4 of the funds, AB 2766 requires that fees collected by the Department of Motor Vehicles be subvended to the South Coast Air Quality Management District (SCAQMD) for the purpose of funding three programs with a prescribed allocation as follows: the local government Subvention Fund Program portion (40%) is distributed on a quarterly basis to South Coast Basin cities and counties based upon their prorated share of population to implement projects that reduce emissions from mobile sources; the SCAQMD Program Fund (30%) goes towards agency planning, monitoring, research and other activities that reduce mobile source emissions; the Discretionary Fund Program (30%) is administered by the Mobile Source Air Pollution Reduction Review Committee (MSRC), which awards money to project proponents that also reduce motor vehicle emissions. AB 2766 funded projects have many additional benefits including increasing transportation alternatives, relieving traffic congestion, conserving scarce energy resources and reducing greenhouse gas emissions.

II. REPORTING

This Staff Report addresses solely, the local government subvention portion of AB 2766 monies by accounting for projects, financial expenditures, emissions reduced and cost-effectiveness of projects implemented through the AB 2766 Subvention Fund Program during FY 2013-14.

AB 2766 fees are collected by the Department of Motor Vehicles and subvented to the SCAQMD on a monthly basis. The SCAQMD Finance Division disburses the AB 2766 revenues to local governments quarterly. During FY 2013-14, the total number of local governments eligible to receive AB 2766 funds (Motor Vehicle Fees) was 162 (see Attachment A). Pursuant to H&S Code 44243(b)(1), newly incorporated cities may receive subvention funds, provided they adopt and transmit to the SCAQMD the specified ordinance within 90 days of official incorporation.

Cities and counties complete and submit an annual report to the SCAQMD identifying the revenues received, project expenditures, emissions reduced, and cost-effectiveness of each project implemented during the preceding fiscal reporting cycle. Staff then reviews the data, which include project descriptions, funds expended, administrative costs, fund balances, emission reductions achieved, and cost effectiveness. Local jurisdictions are encouraged to pre-designate funds budgeted for specific projects that may be implemented in the future. A detailed summary of the information (see Attachment B) is forwarded to the California Air Resources Board (CARB) after approval by the SCAQMD Governing Board. In addition to general financial data, these reports include a breakdown of project funding sources and average cost-effectiveness by project.

Although SCAQMD staff reviews and evaluates the AB 2766 reports submitted, SCAQMD does not have the authority to “approve” or “disapprove” a local government’s use of AB 2766 funds for specific projects. Rather, staff is authorized to provide technical assistance and guidance according to AB 2766 criteria and guidelines established by CARB and “accept” the AB 2766 Annual Report submitted by each AB 2766 fund recipient. Audit requirements of H&S Code Sections 44244.1 *et seq.* specify required actions for fund recipients. Audit determinations that recipients have expended revenues contrary to statute or which will not result in the reduction of pollution from motor vehicles, shall upon required public hearing(s), result in the inappropriate expense amount being withheld from future revenue distribution.

III. PROGRAM GUIDANCE

Purpose

As directed by the Governing Board in 1998, the SCAQMD’s AB 2766 staff serves as a resource to cities and counties by providing technical guidance for project development and implementation. Special emphasis is placed on the selection of cost-effective, quantifiable mobile source emission reduction projects that meet the needs of the local jurisdiction. SCAQMD staff assists local jurisdictions with emission reduction calculations, and advises them in the selection of eligible projects as well as the preparation of their AB 2766 Annual Reports.

An AB 2766 Subvention Fund Program Resource Guide is available to provide guidance in identifying projects that are eligible for AB 2766 funding. The Guide identifies project eligibility requirements, provides program updates, policies, and guidelines to assist local jurisdictions that receive AB 2766 funds. Project descriptions and examples outlined in the AB 2766 Resource Guide are consistent with CARB’s Criteria and Guidelines for the Use of Motor Vehicle Registration Fees, which focuses on strategies that directly reduce mobile source emissions.

Activities

SCAQMD staff reviews the program data and collaborates with CARB staff on ways to improve the automated software for local governments to report their AB 2766 funded project outcomes. SCAQMD staff conducted, as in prior years, technical training sessions for local government representatives and Council of Government (COG) staff to overview the program guidelines and policies, familiarize them with the electronic submittal process, respond to inquiries related to the annual reporting software, and solicit feedback on its usefulness. Eighteen (18) AB 2766 technical training sessions were conducted by SCAQMD staff during the months of December 2014, January, and February 2015, with 108 local government representatives attending. During the training sessions, staff provided detailed instructions regarding the OnBase AB 2766 Annual Report submittal process. The OnBase system, accessed with customized logins, automatically notifies the transmitting entity via email, of the status of the annual program report transmission (review and acceptance, or non-acceptance). In addition to the direct uploading of the AB 2766 Annual Reports, the system allows local jurisdictions an opportunity to monitor the status of the SCAQMD review process. The OnBase system also has a feature which provides local government's access to their previously submitted AB 2766 Annual Reports. Use of the OnBase system fosters enhanced AB 2766 program efficiency and time savings as well as record retention and accessibility for SCAQMD staff and participating local jurisdictions.

Additionally, SCAQMD staff provided technical assistance which consisted of meetings with local government staff, local council members, city mayors, city managers, and other decision making local government staff in order to educate and encourage implementation of quantifiable, cost-effective projects that yield direct mobile source emission reductions and to address program challenges unique to specific cities/counties. SCAQMD staff has also assisted local governments with emission calculations and provided hands-on instructions in the use of the automated reporting system.

SCAQMD staff has reviewed and evaluated the FY 2013-14 annual program reports submitted by the 162 participating local jurisdictions. The results are summarized in the Program Data section of this report.

Local Government Coordination

Local governments may contribute a portion of their AB 2766 subvention funds to their respective Councils of Governments (COGs) in order to pool their resources to implement projects that reduce air pollution from motor vehicles. COGs must adhere to the same project eligibility requirements and guidelines as all local jurisdictions receiving AB 2766 funds when implementing air quality projects funded by the AB 2766 dollars. Table 1 provides a summary of the projects and programs implemented, including a description of the activities conducted by COGs receiving AB 2766 funds from their member cities. To monitor and track the cost effectiveness of the projects and programs implemented using subvention funds given by local governments to COGs, local governments have been asked to provide information on the use of the AB 2766 funds that they give to their COGs for mobile source emission reduction projects. COGs provide summary reports to their member cities and the SCAQMD identifying the funding amount and description of AB 2766 funded projects implemented.

Table 1
Summary of COG Activities

COG Name	Expenditure Amount*	Project Description**
Coachella Valley	\$302,700	Regional PM ₁₀ Street Sweeping Program which uses alternative fuel equipment to sweep approximately 21,829 curb miles to remove roadway dust.
San Gabriel Valley	\$13,500	I-210 Connected Corridors planning; bicycle trails network planning; develop Active Transportation Program application for bicycle trails/lanes; Complete Streets outreach/education; and Open Streets outreach/education.
Western Riverside	\$102,000	Clean cities coalition, promoting emission reductions from motor vehicles through alternative fuel and advance technology vehicles.
Gateway Cities	\$122,700	I-710 Corridor EIR/EIS; SR-91/I-605/I-405 Major Corridor Study; Air Quality Action Plan for Gateway Cities region and ITS initiative for freeway traffic flow improvements.

*Expenditure amounts as reported by COG member cities.

**Project descriptions as reported by the COG.

IV. PROGRAM DATA

Project Categories

Local governments are required, in accordance with AB 2766 legislation, to use the subvented funding dollars they receive to implement projects that reduce motor vehicle emissions. The AB 2766 Resource Guide summarizes CARB’s fund usage criteria and identifies appropriate strategies that, through careful planning and design, will most cost effectively and efficiently reduce emissions from mobile sources. The following is the list of AB 2766 Project Categories (11) and examples of projects that meet the criteria and guidelines established by CARB for AB 2766 fund expenditures:

1. **Alternative Fuels/Electric Vehicles** - Promoting and encouraging the use of alternative fuels by purchasing or leasing vehicles powered by compressed natural gas, propane, full non-diesel hybrids that meet specific CARB certification standards, fuel cell and electric vehicles; converting or re-powering conventionally fueled vehicles to alternative fueled engines. Installation of alternative fuel infrastructure to support the use of alternative fueled vehicles and purchasing of the alternative fuel for up to three years after vehicle purchase; cost differential thereafter.
2. **Vehicle Emissions Abatement** - Use of cleaner diesel engines and ensuring that vehicles are properly tuned and maintained; retirement and replacement of dirty off-road engines with newer, cleaner diesel engines or installation of particulate trap retrofits for diesel engines.

- Participation in a certified Old Vehicle Scrapping Program. Purchase/lease of electric ride-on commercial lawn mowers.
3. **Land Use** - Implementation of Land Use strategies that make it easier for pedestrians to walk, bicycle, or use public transit, thus reducing automobile trips and emissions; planning, designing, and constructing/installing facilities that discourage and decrease the use of automobiles.
 4. **Public Transportation** – Introduction of new or extended transit service, providing fare subsidies, implementation of rail feeder operations and marketing; purchase or lease of alternative fueled vans, buses or shuttles for transit service. Construction/installation and/or enhancement of public transportation facilities and providing supporting transit information. Support of public transit alternative fuel usage by developing, designing, coordinating, and constructing alternative fuel infrastructure.
 5. **Traffic Management and Signal Coordination** – Installation of corridor signal synchronization systems; design and installation of pedestrian islands, turning lanes, pedestrian traffic controls and/or changeable message signs. Mobilization of freeway tow truck services.
 6. **Transportation Demand Management (TDM)** – Implementing projects that encourage carpooling, vanpooling, biking, walking, use of public transit, telecommuting, or implementation of compressed work week schedules. Designing, developing, and implementing programs that focus on reducing trips to special event centers or other attractions; creation and support of Park and Ride facilities.
 7. **Market Based Strategies** – Developing and implementing user fees or congestion charges to encourage behavioral changes for consumers to use less congesting or less polluting forms of transportation; implementation of Parking Cash-out Programs.
 8. **Bicycles** – Designing, developing and/or installing bikeways or establishing new bicycle corridors; making bicycle facility enhancements/improvements by installing bicycle lockers, bus bike racks; providing assistance with bike loan programs (motorized and standard) for police officers, community members, and the general public.
 9. **PM Reduction Strategies** – Implementing measures that reduce or prevent deposits of dust and other materials from build-up on roadway surfaces such as paving roads, shoulders, and purchasing SCAQMD Rule 1186.1 compliant street sweepers.
 10. **Public Education** – Designing, developing and/or sponsoring one-time, intermittent or on-going air quality outreach campaigns that educate the public about options that reduce single occupancy vehicle trips, i.e., when launching new programs such as shuttle services, transit station openings, HOV facility openings, and providing information on rideshare incentive programs. Dissemination of updated printed material; developing and conducting group specific presentations; participation in or sponsorship of workshops, forums and conferences.
 11. **Miscellaneous Projects** – Designing, developing and/or implementing projects or programs that reduce mobile source emissions, but are not specifically listed or identified in the AB 2766 Resource Guide. Specific details on the type of project being implemented, cost-effectiveness and emission reductions achieved as well as data/explanation on the methodology used in the calculations/analysis must be provided.

NOTE: *Research and Development (R&D) projects are allowable AB 2766 expenditures. However, the expenditure(s) must not exceed 10% of the AB 2766 funds received for the reporting cycle. Funds used for public education and CEQA related studies must also adhere to the 10% expenditure threshold.*

Project Funding & Quantification

A financial summary of how local governments in the four counties used their AB 2766 subvention funds during FY 2013-14 is provided in Table 2. Local governments have the ability to carry over fund balances indefinitely, which provides the flexibility of saving for future large projects or to secure additional co-funding. Local governments spent less of the subvention funds, \$19.8 million, on mobile source emission reduction projects than they received, \$20.3 million, in motor vehicle fees. They spent 32% of their combined beginning balance and MV fees received, which is an increase from what occurred in FY 2012-13 when cities and counties spent 30% (\$19 million) of the total beginning balances and MV fees received.

Table 2 also shows that of the \$43 million ending balance that the local governments reported, approximately \$30 million or 69% of the ending balance was pre-designated for future projects. This indicates a slight decrease from what occurred in FY 2012-13, when 72% of the ending balance was pre-designated for future projects.

Table 2
FY 2013-14 Motor Vehicle (MV) Funds Financial Summary
(As Reported by Local Jurisdictions)

County	Beginning Balance	MV Fees Received	Project Spending	Ending ¹ Balance	Pre-designated Funds	Funds Remaining
Los Angeles	\$21,257,500	\$11,968,000	\$12,454,000	\$20,758,900	\$14,761,300	\$5,997,600
Orange	\$10,882,300	\$3,752,900	\$3,406,400	\$11,239,800	\$7,012,000	\$4,216,800
Riverside	\$5,061,200	\$2,665,800	\$2,626,800	\$5,098,700	\$4,159,000	\$939,700
San Bernardino	\$5,091,300	\$1,908,400	\$1,296,500	\$5,706,000	\$3,602,200	\$2,103,800
Totals*	\$42,292,200	\$20,295,100	\$19,783,800	\$42,803,400	\$29,534,600	\$13,257,800

*Totals vary due to rounding.

Table 3 shows the historical funding, project expenditure levels, and funds pre-designated by local governments over the last five fiscal reporting cycles. Motor Vehicle funding subvented to local governments has increased this reporting cycle and they spent a higher percentage (97%) of their AB 2766 funds received on eligible AB 2766 projects compared to the prior reporting cycle (92%).

¹ The ending balance represents the beginning balance and MV Fees received, minus project spending. Interest earned and administrative costs are incorporated. Interest earned and Administrative costs are fully detailed in Appendix B.

Table 3
History of MV Funds Financial Summary

Fiscal Year	Beginning Balance	MV Fees Received	Project Spending	Ending Balance	Pre-designated Funds	Funds Remaining
2009-10	\$39,839,100	\$20,309,600	\$22,699,400	\$37,723,700	\$30,464,900	\$7,258,800
2010-11	\$36,393,300	\$18,896,600	\$17,597,000	\$37,774,900	\$28,477,300	\$9,297,600
2011-12	\$37,430,200	\$20,717,200	\$18,988,800	\$39,188,200	\$28,154,100	\$11,034,100
2012-13	\$41,152,100	\$20,095,200	\$18,556,900	\$42,562,000	\$30,785,600	\$11,776,400
2013-14	\$42,292,200	\$20,295,100	\$19,783,800	\$42,803,400	\$29,534,600	\$13,257,800

Table 4 identifies, by county, the number of projects funded by local governments and of those, the number and percentages of projects with quantified emission reductions achieved during FY 2013-14. Los Angeles County has the majority of the cities in the South Coast Air Basin and therefore funded the largest number of AB 2766 projects in the program (113). Orange County had the second highest number of projects funded (47), followed by Riverside County (37) and San Bernardino (25). For this reporting cycle, San Bernardino County has yielded the highest percentage (74%) of quantified projects.

Table 4
FY 2013-14 Local Government Project Reporting and Emission Reduction Quantification

County	Number of Local Governments Reporting	Number of Projects Funded	Number of Projects with Emission Reductions Quantified	Percent of Projects with Emission Reductions Quantified
Los Angeles	82	165	113	68%
Orange	35	96	47	49%
Riverside	28	58	37	64%
San Bernardino	17	34	25	74%
Totals	162	353	222	63%

Table 5 shows 222 projects with emission reductions quantified, which is an increase from the 203 projects quantified in FY 2012-13. Overall, the total number of projects funded by local governments over the last five fiscal reporting cycles has resulted in project quantifications above 50%, reporting 63% for FY 2013-14. The percentage of expenditures quantified was 71% during the last reporting cycle but decreased to 67% during FY 2013-14.

CARB has provided methodology for emission reduction quantification, along with corresponding emission factors for some of the most widely implemented transportation related air quality projects. The annual emission reductions as well as the cost-effectiveness of the projects are estimated. Emission reductions from several of these types of projects are difficult to quantify or cannot be quantified, such as vehicle infrastructure projects, public education and outreach programs, as well as Research and Development (R&D) projects.

Table 5
Project Quantification History

Year	Number of Projects	Projects with Emission Reductions Quantified	Percent of Projects Quantified	Percent of Expenditures Quantified
FY 2009-10	392	198	51%	65%
FY 2010-11	324	187	58%	73%
FY 2011-12	318	194	61%	74%
FY 2012-13	319	203	64%	71%
FY 2013-14	353	222	63%	67%

Data in Table 6 shows the FY 2013-14 expenditures made in ten of the eleven AB 2766 project categories. There were no projects implemented in the Market Based Strategies project category, as has been the case since FY 2006-07. Table 6 shows expenditures, beginning with the project category having the highest expenditures and ending with the project category that had the least amount of local government spending. The two highest spending categories are the Alternative Fuels/Electric Vehicles and Transportation Demand Management (TDM) categories, which represent 61% or about \$12 million of the \$19.8 million program expenditures. Much of these funds were spent towards SCAQMD rule compliance related activities, such as implementation of SCAQMD Clean Fleet Rules and employee rideshare programs.

Table 6
FY 2013-14 Expenditures by Project Category

Project Category	Project Spending*	Percent of Spending*	# of Projects
Alternative Fuels/Electric Vehicles	\$6,888,000	35%	92
Transportation Demand Management	\$5,096,700	26%	86
Traffic Management	\$2,418,900	12%	47
Land Use	\$1,970,600	10%	25
Public Transportation	\$1,384,200	7%	32
PM Reduction Strategies	\$976,900	5%	17
Miscellaneous Projects	\$495,900	3%	22
Bicycles	\$289,900	1%	20
Public Education	\$142,700	1%	10
Vehicle Emission Abatement	\$119,900	1%	2
Totals*	\$19,783,800	100%	353

*Numbers vary due to rounding.

Emission Reductions & Cost Effectiveness

Table 7 summarizes, by county, the number of projects funded, project spending, and the amount of emission reductions achieved. Local governments in Los Angeles County reported the vast majority of project spending, \$12.5 million (63%) and also represented the majority of annual emission reductions for the year. During FY 2013-14, a total of 5,463 tons of emissions were reduced by projects funded with AB 2766 Subvention Funds.

Table 7
FY 2013-14 AB 2766 Project Spending and Emissions Reduced

County	Number of Projects Funded	Project Spending	Emissions Reduced² (Tons/Year)
Los Angeles	165	\$12,454,000	5306
Orange	96	\$3,406,400	98
Riverside	58	\$2,626,800	25
San Bernardino	34	\$1,296,500	34
Totals*	353	\$19,783,800	5,463

*Numbers vary due to rounding.

² Emissions reduced account for total reductions (VOC, NO_x, PM₁₀ and CO/7) from Air Fund expenditures. Air Funds consist of the Motor Vehicle Fees and funding both from the state Carl Moyer Program and the AB 2766 Discretionary fund. See Attachment B: Average Cost Effectiveness by Project.

The 5,463 tons of emission reductions represents a decrease from the 5,951 tons of emissions reduced during the FY 12-13 reporting cycle (see Table 9). This decrease may be attributed to the Transportation Demand Management project category which reported significantly less emission reductions in this reporting cycle as compared to the FY 2012-13 reporting cycle. In contrast, the alternative fuels/electric vehicle category reported double the emission reductions as compared to the previous year.

Table 8 provides emission reduction and cost-effectiveness information for the AB 2766 project categories. In this reporting cycle, the Traffic Management category represented the bulk of the emissions reduced for FY 2013-14. This project category, which includes Traffic Calming and Traffic Signal Synchronization Projects, accounts for 5,107 tons per year of emissions reduced, or about 93% of the 5,463 tons per year of total emissions reduced from all AB 2766 project categories. However, only 12% (see Table 6) of the total funding was spent within this category. The cost effectiveness of this category was greatly skewed by a signal synchronization project, which claimed 5,078 tons per year of emissions reduced.

As a result of the AB 2766 staff's efforts throughout the reporting year to provide technical support and program outreach, jurisdictions are continuing to implement cost-effective and quantifiable emission reduction projects. Local governments are encouraged to seek and create opportunities to coordinate with neighboring cities, jurisdictions, and COGs to implement projects that will result in shared, mutual emission reduction benefits, while potentially pooling costs and resources. Pre-designating funds for future project implementation has helped program administrators to better understand the importance of long-term project planning and has encouraged them to research other sources, and ways to secure matching funds.

The last column in Table 8 identifies the total air funds cost-effectiveness (dollar per pound) of emissions reduced. The "Air Funds" consist of the Motor Vehicle Fees and if applicable, funding from the state Carl Moyer Fund Program and the Mobile Source Air Pollution Reduction Review Committee (MSRC) funding pursuant to CARB's methodology.

The cost-effectiveness of all project categories, as shown in Table 8, range from \$0.13 - \$36.74 per pound of emissions reduced. The overall total average cost-effectiveness was computed as \$0.82 per pound of emissions reduced. However, as noted above, there is an automatic traffic surveillance project within the Traffic Management project category that continues to have a significant effect on the program's overall cost-effectiveness. If that project had been excluded from the total number of projects implemented, the average cost-effectiveness would have been \$10.25 per pound of emissions reduced instead of \$0.82 per pound. Taking this into consideration, the overall total cost effectiveness would be slightly above the \$10 per pound cost-effectiveness threshold established by CARB. Various factors, such as funding amounts, project design, and trip and vehicle miles traveled reductions all help to determine how cost-effective one project is compared to another and determine the final project category cost effectiveness as shown in Table 8.

Table 8
FY 2013-14 Emissions Reduced and Cost-Effectiveness by Project Category

Project Category	Number of Projects	Number of Projects Quantified	Percent of Projects Quantified	Emissions Reduced³ (Lbs/Yr)	Emissions Reduced⁴ (Tons/Yr)	Air Funds Cost-Effectiveness⁵ (\$/Lb)
Traffic Management	47	17	36%	10,213,534	5,107	\$0.13
Transportation Demand Management	86	75	87%	450,635	225	\$10.07
Alternative Fuels/ Electric Vehicles	92	71	77%	170,240	85	\$5.62
PM Reduction Strategies	17	16	94%	36,481	18	\$22.50
Public Transportation	32	25	78%	31,471	16	\$36.74
Miscellaneous Projects⁶	22	3	14%	14,276	7	\$9.30
Bicycles	20	13	65%	6,976	3	\$12.06
Vehicle Emissions Abatement	2	2	100%	3,209	2	\$11.98
Public Education	10	-	-	-	-	-
Land Use	25	-	-	-	-	-
TOTALS*	353	222	63%	10,926,821	5,463	\$0.82

*Totals may vary slightly due to rounding.

Motor Vehicle funding subvended to local governments increased slightly this fiscal reporting cycle. Figure 1 shows the historical funding and total project expenditure levels by local governments for the last five fiscal reporting cycles. The project expenditures are expressed in both total project expenditures and quantifiable project expenditures. The percent of projects quantified represent 63% of the total number of projects implemented for FY 2013-14.

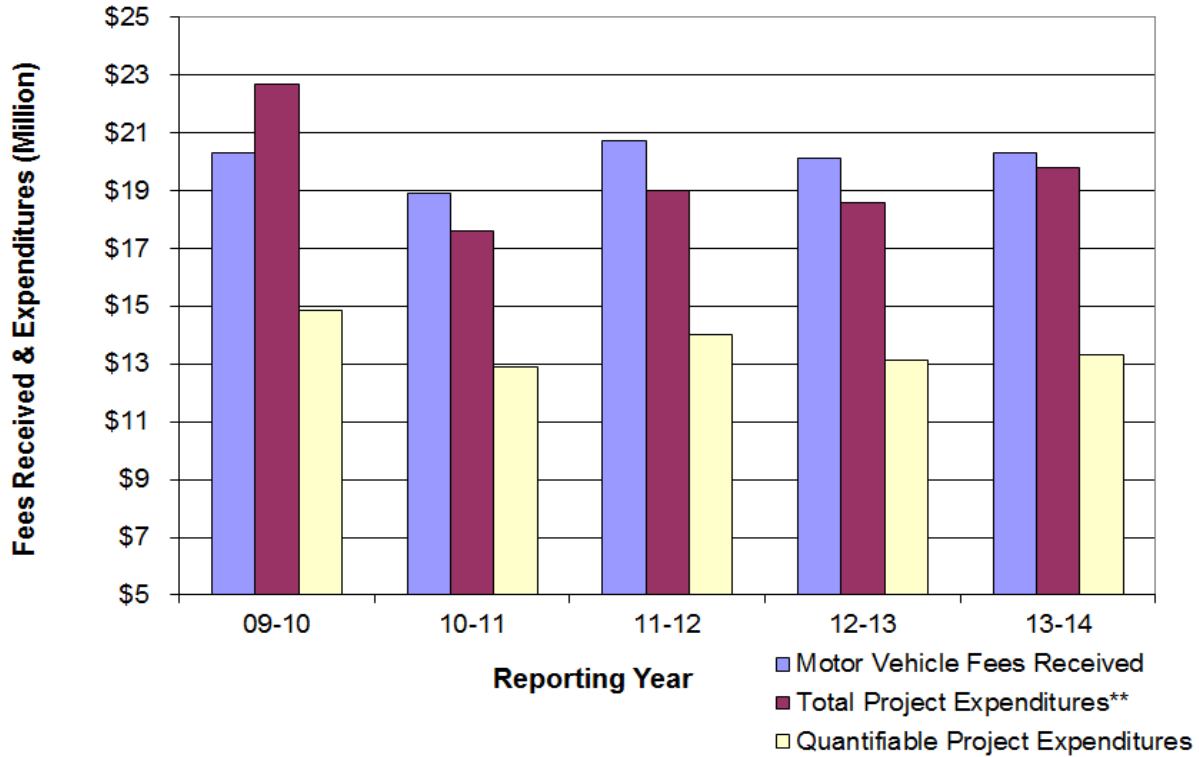
3 Emissions reduced account for total reductions (VOC, NOx, PM₁₀ and CO/7) from the state Carl Moyer Program and the AB 2766 Discretionary fund. See Attachment B: Average Cost-Effectiveness by Project, pg. 62.

4 Emissions reduced (tons/year) is determined by dividing by 2,000 lbs. Totals may vary slightly due to rounding.

5 EMFAC is consistent with ARB methodology. Cost effectiveness is determined by multiplying default capital recovery factors (amortized formula reflecting project life and discount rate) by total funds, then dividing those annualized funds by annual emission reductions. See Attachment B: Average Cost-Effectiveness by Project, pg. 62.

6 The "Miscellaneous Project" category represents quantified and non-quantified projects that were not classified under the major program categories (i.e., payment of funds to Council of Governments to support and finance inter-jurisdictional air quality projects that aim to reduce emissions from motor vehicles, as summarized in Table 1).

Figure 1
History of MV Fees Received and Expenditures*



*In current 2014 dollars.

**In FY 2009-10, Total Project Expenditures are slightly more than Motor Vehicle Fees Received due to funds available from carryover balances.

Figure 1 shows the historical funding and total project expenditure levels by local governments for the last five fiscal reporting cycles. The project expenditures are expressed in both total project expenditures and quantifiable project expenditures. The quantifiable project expenditures represent 67% of the total project expenditures for FY 2013-14.

Approximately 5,463 tons per year (VOC, NO_x, PM₁₀ and CO/7) or about 15 tons per day of pollution was eliminated during FY 2013-14 from \$19.8 million expended by local governments compared to 5,951 tons of quantifiable reductions achieved in FY 2012-13 from \$18.6 million expended.

The history of emission reductions and cost-effectiveness is shown in Table 9, which reflects the total amount of emission reductions quantified. The average cost-effectiveness of projects funded during FY 2013-14 was approximately \$0.82 per pound of emissions reduced. It should be noted that the cost effectiveness calculation was performed in current (nominal) dollars. The cost-effectiveness numbers would have been lower in real dollars.

The average cost-effectiveness figure is determined by dividing the amortized Air Fund dollar amount (\$9 million) which is associated with quantified projects, by the total amount of emission reductions (10,926,820 million lbs/yr). Table 9 illustrates the progress that has been made since FY 2009-10 in reducing emissions. Emissions calculations are based on the most recently approved emission factors for the reporting cycle. As vehicles become cleaner and emission factors decrease from year to year, more cost-effective projects are required to maintain the same level of emission reductions.

Table 9
History of Emissions Reduced and Cost-Effectiveness*

Fiscal Year	Emissions Reduced** (Lbs/Yr)	Emissions Reduced** (Tons/Yr)	Cost Effectiveness (\$/Lb)	Cost Effectiveness (\$/Ton)
FY 2009-10	10,918,000	5,459	\$0.88	\$1,760
FY 2010-11	11,613,570	5,807	\$0.77	\$1,540
FY 2011-12	11,428,656	5,714	\$0.80	\$1,600
FY 2012-13	11,901,177	5,951	\$0.71	\$1,420
FY 2013-14	10,926,821	5,463	\$0.82	\$1,640

*In current 2014 dollars.

**Emission reductions determined by the EMFAC emissions model in effect for the year specified.

Table 10 shows the project subcategories with the highest Motor Vehicle Fee funding allocations within each project category. Each major category is comprised of subcategories for the purpose of emission reduction quantification. Historically, the three project subcategories with the highest expenditures have been Alternative Fuel Vehicle Purchases, Employer Based Trip Reductions, and Traffic Flow or Signalization, respectively. That trend is consistent in this reporting cycle. However, the total sum of expenditures in these three subcategories indicated that there was a decrease in the percentage of funding dollars spent (46%), compared to 54% reported in the FY 2012-13 reporting cycle. Combined total expenditures for these top three subcategories is approximately \$9 million. This amount represents approximately half (46%) of the \$19.8 million MV fees spent on mobile source projects during FY 2013-14.

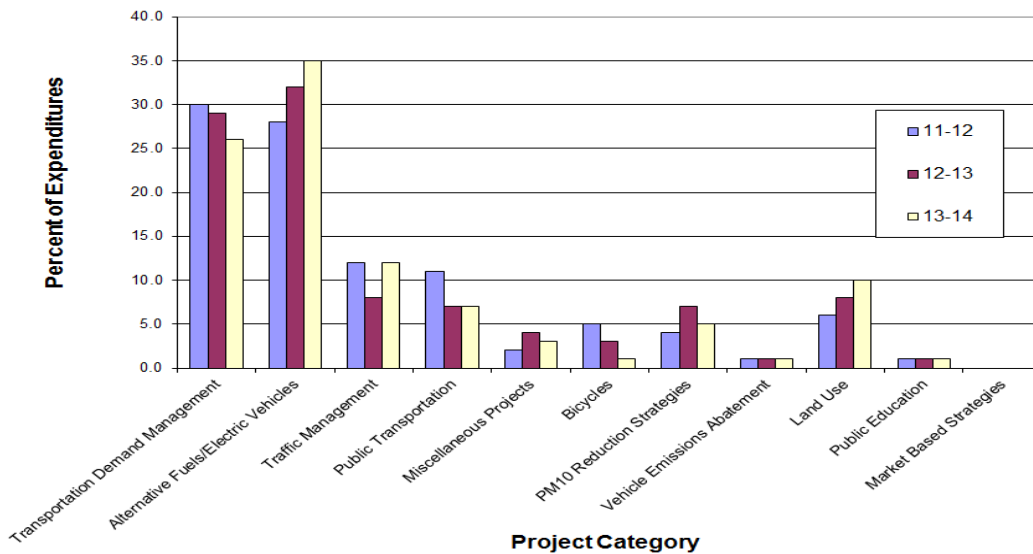
Table 10
FY 2013-14 Project Subcategories with Highest Funding Allocations

Project Category (# of Projects)	Project Subcategory (# of Projects)	Project Subcategory Expenditures	Percent of Project Category Expenditures*
Alternative Fuels/Electric Vehicles (91)	Alternative Fuel Vehicle Purchases (63)	\$3,937,100	57%
Transportation Demand Management (86)	Employer-Based Trip Reduction (61)	\$3,108,900	61%
Traffic Management (47)	Traffic Flow or Signalization (33)	\$2,115,900	87%
Land Use (25)	Plan Elements (13)	\$1,371,400	70%
PM Reduction Strategies (17)	Road Dust Control (17)	\$976,900	100%
Misc. Projects (22)	Misc. Projects (22)	\$495,900	100%
Public Transportation (32)	Transit Operations (7)	\$780,000	56%
Bicycles (20)	Bicycle Lanes & Trails (7)	\$152,000	52%
Public Education (10)	Short Term PE (promote transit, rideshare) (7)	\$129,200	91%
Vehicle Emissions Abatement (2)	On-road CARB-verified Diesel Emission Control Systems (1)	\$93,200	78%

*Project Category Expenditures shown in Table 6.

Figure 2 depicts a comparison by percentages of the expenditures made in all project categories during FYs 2011-12, 2012-13 and 2013-14. Although spending in each project category fluctuated, there were no significant changes since FY 2011-12.

Figure 2
FY 2013-14 Project Expenditure Comparisons



V. PROGRAM OUTREACH

The following information summarizes on-going program outreach efforts:

Local Government Leadership

- SCAQMD staff will provide written notification of fund balances and fund match/leverage opportunities to local government officials.
- SCAQMD staff will encourage local government policy makers to provide leadership and establish partnerships in the program decision-making process.
- SCAQMD staff will encourage cities to implement quantifiable, cost-effective mobile source emission reduction projects. Staff will accomplish this by seeking to meet with and maintain an open, ongoing dialogue with city mayors, city managers, and other local government staff.

Councils of Government

- SCAQMD staff will coordinate with COG staff to ensure accurate program reporting on project activities funded with AB 2766 funds received from their member cities and counties. Emphasis will continue to be placed on the importance of ensuring that projects funded by COGs adhere to the AB 2766 guidelines and criteria established by CARB.
- SCAQMD staff will encourage local governments to provide feedback to SCAQMD and to their respective COGs on various AB 2766 program matters, including the annual reporting process, and subvention funds allocated towards COG sponsored projects.

Local Government Staff

- SCAQMD staff will encourage fund leveraging and pre-designation of funds for future quantifiable project implementation.
- SCAQMD staff will maintain an outreach presence through meetings with local governments' AB 2766 administrators to:
 - 1) Provide technical guidance on program changes, modifications and/or enhancements;
 - 2) Provide information regarding legal constraints of AB 2766 spending;
 - 3) Provide technical hands-on assistance on calculating, tracking and reporting on projects that will yield quantifiable emission reductions;
 - 4) Provide a list of eligible, preferred projects;
 - 5) Explain and discuss the importance of pre-designating funds;
 - 6) Provide training on the automated reporting and submittal processes; and
 - 7) Respond to general questions about the AB 2766 Program.
- SCAQMD staff will encourage all AB 2766 administrators to attend the annual AB 2766 training sessions to learn about updated AB 2766 software submittal procedures and all other pertinent updates, changes and/or modifications to the AB 2766 Program.

ATTACHMENT A:

Eligible Cities and Counties (FY 2013-14)

Eligible Cities and Counties (FY 2013-14)

Los Angeles County	Los Angeles County (cont'd)	Orange County	Riverside County	San Bernardino County
Agoura Hills	La Verne	Aliso Viejo	Banning	Big Bear Lake
Alhambra	Lakewood	Anaheim	Beaumont	Chino
Arcadia	Long Beach	Brea	Calimesa	Chino Hills
Artesia	Lomita	Buena Park	Canyon Lake	Colton
Azusa	City of Los Angeles	Costa Mesa	Cathedral City	Fontana
Baldwin Park	Lynwood	Cypress	Coachella	Grand Terrace
Bell	Malibu	Dana Point	Corona	Highland
Bell Gardens	Manhattan Beach	Fountain Valley	Desert Hot Springs	Loma Linda
Bellflower	Maywood	Fullerton	Eastvale	Montclair
Beverly Hills	Monrovia	Garden Grove	Hemet	Ontario
Burbank	Montebello	Huntington Beach	Indian Wells	Rancho Cucamonga
Carson	Monterey Park	Irvine	Indio	Redlands
Calabasas	Norwalk	La Habra	Jurupa Valley	Rialto
Cerritos	Palos Verdes	La Palma	Lake Elsinore	San Bernardino
Claremont	Paramount	Laguna Beach	La Quinta	City of San Bernardino
Commerce	Pasadena	Laguna Hills	Menifee	Upland
Compton	Pico Rivera	Laguna Niguel	Moreno Valley	Yucaipa
Covina	Pomona	Laguna Woods	Murrieta	
Cudahy	Rancho Palos Verdes	Lake Forest	Norco	
Culver City	Redondo Beach	Los Alamitos	Palm Desert	
Diamond Bar	Rolling Hills Estates	Mission Viejo	Palm Springs	
Downey	Rosemead	Newport Beach	Perris	
Duarte	San Dimas	Orange	Rancho Mirage	
El Monte	San Fernando	County of Orange	Riverside	
El Segundo	San Gabriel	Placentia	County of Riverside	
Gardena	San Marino	Rancho Santa Margarita	San Jacinto	
Glendale	Santa Clarita	San Clemente	Temecula	
Glendora	Santa Monica	San Juan Capistrano	Wildomar	
Hawaiian Gardens	Santa Fe Springs	Santa Ana		
Hawthorne	Sierra Madre	Seal Beach		
Hermosa Beach	Signal Hill	Stanton		
Hidden Hills	South El Monte	Tustin		
Huntington Park	South Gate	Villa Park		
Inglewood	South Pasadena	Westminster		
Irwindale	Torrance	Yorba Linda		
La Canada Flintridge	Temple City			
La Habra Heights	Walnut			
La Mirada	West Covina			
La Puente	West Hollywood			
Los Angeles County	Westlake Village			
Lawndale	Whittier			
Total Eligible Governments = 162	Los Angeles = 82	Orange = 35	Riverside = 28	San Bernardino = 17

ATTACHMENT B:
FY 2013-14 AB 2766 Subvention Fund Program Reports

South Coast Cities and Counties Financial Summary of Motor Vehicle Funds

Fiscal Year 2013 - 2014

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
<i>Los Angeles Co</i>									
	Agoura Hills	\$58,745	\$25,340	\$469	\$84,554	\$46,244	\$1,200	\$37,110	\$60,000
	Alhambra	\$539,120	\$103,400	\$817	\$643,337	\$323,208	\$172	\$319,957	\$64,000
	Arcadia	\$286,546	\$70,433	\$2,923	\$359,902	\$203,920	\$0	\$155,982	\$200,000
	Artesia	\$0	\$94,722	\$191	\$94,913	\$5,635	\$0	\$89,278	\$0
	Azusa	\$269,576	\$43,601	\$1,306	\$314,483	\$41,669	\$2,350	\$270,464	\$259,080
	Baldwin Park	\$657,919	\$94,632	\$435	\$752,986	\$670,348	\$0	\$82,638	\$0
	Bell	\$113,858	\$40,556	\$176	\$154,590	\$58,474	\$0	\$96,116	\$73,653
	Bell Gardens	\$80,369	\$52,193	\$115	\$132,677	\$18,126	\$0	\$114,551	\$85,000
	Bellflower	\$197,643	\$95,835	\$1,494	\$294,972	\$93,447	\$0	\$201,526	\$201,526
	Beverly Hills	\$409,411	\$42,429	\$6,644	\$458,484	\$54,358	\$0	\$404,126	\$458,484
	Burbank	\$184,556	\$130,459	\$36,189	\$351,204	\$103,653	\$0	\$247,551	\$214,981
	Calabasas	\$74,118	\$29,236	\$1,416	\$104,770	\$35,577	\$0	\$69,193	\$74,118
	Carson	\$118,901	\$114,510	\$796	\$234,207	\$67,494	\$0	\$166,713	\$200,000
	Cerritos	\$336,154	\$61,446	\$2,812	\$400,412	\$29,871	\$3,072	\$367,469	\$367,469
	Claremont	\$148,402	\$49,222	\$435	\$198,059	\$22,319	\$0	\$175,740	\$175,000
	Commerce	\$0	\$15,864	\$9	\$15,873	\$15,864	\$0	\$9	\$15,000
	Compton	\$314,069	\$181,749	\$227	\$496,045	\$181,749	\$0	\$314,296	\$314,069
	County of LA	\$96,836	\$1,287,684	\$1,624	\$1,386,144	\$305,696	\$0	\$1,080,448	\$1,080,448
	Covina	\$174,474	\$60,095	\$0	\$234,569	\$228,246	\$2,930	\$3,393	\$3,393
	Cudahy	\$24,423	\$21,329	\$57	\$45,809	\$19,934	\$0	\$25,875	\$0
	Culver City	\$177,170	\$48,571	\$415	\$226,155	\$0	\$0	\$226,155	\$150,000
	Diamond Bar	\$165,587	\$69,510	\$933	\$236,030	\$70,451	\$0	\$165,579	\$130,000
	Downey	\$648,208	\$103,683	\$7,859	\$759,750	\$117,436	\$5,500	\$636,814	\$550,000
	Duarte	\$48,322	\$26,582	\$0	\$74,904	\$30,653	\$1,330	\$42,921	\$35,000
	El Monte	\$312,797	\$140,049	\$960	\$453,807	\$326,151	\$0	\$127,655	\$312,797

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
<i>Los Angeles Co (cont'd)</i>									
	El Segundo	\$82,959	\$20,595	\$1,601	\$105,155	\$99,309	\$0	\$5,847	\$100,300
	Gardena	\$120,130	\$73,867	\$529	\$194,526	\$65,563	\$3,693	\$125,270	\$95,000
	Glendale	\$290,000	\$238,537	\$2,251	\$530,788	\$238,537	\$0	\$292,251	\$70,000
	Glendora	\$167,191	\$62,669	\$1,080	\$230,940	\$13,673	\$3,142	\$214,125	\$125,000
	Hawaiian Gardens	\$191,459	\$17,653	\$229	\$209,341	\$82,572	\$0	\$126,769	\$127,000
	Hawthorne	\$199	\$105,947	\$110	\$106,256	\$102,000	\$840	\$3,416	\$0
	Hermosa Beach	\$109,401	\$24,268	\$277	\$133,946	\$119,919	\$0	\$14,027	\$14,027
	Hidden Hills	\$44,346	\$1,607	\$124	\$46,077	\$0	\$0	\$46,077	\$0
	Huntington Park	\$698,107	\$72,696	\$1,349	\$772,152	\$338,176	\$214	\$433,762	\$0
	Inglewood	\$554,496	\$274,517	\$3,179	\$832,192	\$0	\$0	\$832,192	\$61,346
	Irwindale	\$0	\$1,604	\$0	\$1,604	\$1,604	\$0	\$0	\$1,808
	La Canada Flintridge	\$207,438	\$17,078	\$4,657	\$229,173	\$0	\$0	\$229,173	\$138,800
	La Habra Heights	\$32,092	\$6,474	\$59	\$38,626	\$32,547	\$0	\$6,078	\$0
	La Mirada	\$383,414	\$44,831	\$1,992	\$430,237	\$158,533	\$0	\$271,704	\$0
	La Puente	\$342,211	\$49,780	\$1,525	\$393,516	\$112,158	\$0	\$281,358	\$220,812
	La Verne	\$346,011	\$30,107	\$1,677	\$377,795	\$11,184	\$173	\$366,438	\$150,000
	Lakewood	\$110,828	\$100,175	\$555	\$211,558	\$100,050	\$4,635	\$106,873	\$106,873
	Lawndale	\$32,250	\$40,926	\$127	\$73,303	\$0	\$0	\$73,303	\$81,370
	Lomita	\$71,303	\$18,731	\$85	\$90,119	\$15,000	\$673	\$74,446	\$60,000
	Long Beach	\$2,931,866	\$576,643	\$6,227	\$3,514,736	\$68,111	\$30,452	\$3,416,173	\$1,385,031
	Los Angeles (City)	\$3,205,358	\$4,658,129	\$42,493	\$7,905,980	\$5,877,562	\$73,446	\$1,954,972	\$3,205,358
	Lynwood	\$24,877	\$86,898	\$138	\$111,913	\$0	\$0	\$111,913	\$0
	Malibu	\$16,745	\$15,711	\$56	\$32,512	\$20,564	\$0	\$11,948	\$11,948
	Manhattan Beach	\$145,803	\$32,453	\$1,349	\$179,605	\$8,460	\$1,068	\$170,077	\$7,000
	Maywood	\$52,938	\$32,565	\$0	\$85,503	\$0	\$0	\$85,503	\$0
	Monrovia	\$288,718	\$33,804	\$1,071	\$323,593	\$8,257	\$0	\$315,336	\$60,000
	Montebello	\$347,914	\$78,259	\$876	\$427,049	\$37,251	\$3,913	\$385,885	\$0
	Monterey Park	\$181,416	\$56,358	\$757	\$238,531	\$23,676	\$0	\$214,855	\$140,000
	Norwalk	\$251,273	\$131,724	\$1,081	\$384,078	\$255,477	\$0	\$128,601	\$0

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
<i>Los Angeles Co (cont'd)</i>									
	Palos Verdes Estates	\$129,664	\$16,813	\$533	\$147,010	\$52,598	\$0	\$94,412	\$0
	Paramount	\$219,100	\$67,670	\$243	\$287,013	\$124,195	\$3,312	\$159,506	\$32,100
	Pasadena	\$13,911	\$173,993	\$0	\$187,904	\$173,919	\$0	\$13,985	\$180,000
	Pico Rivera	\$142,070	\$78,742	\$726	\$221,538	\$8,101	\$3,937	\$209,500	\$95,000
	Pomona	\$768,420	\$187,465	\$1,245	\$957,130	\$103,800	\$3,727	\$849,603	\$731,077
	Rancho Palos Verdes	\$152,298	\$38,612	\$277	\$191,187	\$93,522	\$0	\$97,665	\$0
	Redondo Beach	\$54,742	\$83,597	\$643	\$138,982	\$43,613	\$4,358	\$91,011	\$0
	Rolling Hills Estates	\$33,432	\$7,339	\$33	\$40,805	\$0	\$0	\$40,805	\$40,804
	Rosemead	\$175,537	\$67,733	\$2,302	\$245,572	\$74,513	\$0	\$171,059	\$171,059
	San Dimas	\$244,244	\$41,658	\$215	\$286,117	\$3,924	\$2,051	\$280,142	\$100,000
	San Fernando	\$100,402	\$34,598	\$55	\$135,055	\$0	\$0	\$135,055	\$28,000
	San Gabriel	\$9,367	\$36,759	\$203	\$46,329	\$0	\$0	\$46,329	\$46,329
	San Marino	\$21,894	\$16,158	\$3	\$38,055	\$34,356	\$0	\$3,699	\$3,699
	Santa Clarita	\$79,333	\$255,577	\$853	\$335,763	\$61,117	\$6,831	\$267,816	\$267,816
	Santa Fe Springs	\$19,930	\$20,687	\$0	\$40,617	\$0	\$0	\$40,617	\$40,617
	Santa Monica	\$404,508	\$113,542	\$7,634	\$525,685	\$280,873	\$5,429	\$239,383	\$225,000
	Sierra Madre	\$92,779	\$9,944	\$111	\$102,834	\$0	\$0	\$102,834	\$70,000
	Signal Hill	\$98,812	\$13,730	\$870	\$113,412	\$2,488	\$0	\$110,924	\$110,000
	South El Monte	\$97,452	\$18,495	\$263	\$116,210	\$9,298	\$0	\$106,912	\$40,000
	South Gate	\$181,579	\$116,907	\$361	\$298,847	\$39,035	\$6,180	\$253,632	\$136,364
	South Pasadena	\$146,587	\$31,929	\$481	\$178,998	\$96,899	\$0	\$82,099	\$63,000
	Temple City	\$115,404	\$115,349	\$55	\$230,808	\$0	\$0	\$230,808	\$115,404
	Torrance	\$202,782	\$182,439	\$2,185	\$387,406	\$151,970	\$0	\$235,436	\$202,782
	Walnut	\$102,289	\$37,203	\$1,287	\$140,779	\$58,520	\$0	\$82,259	\$82,259
	West Covina	\$257,632	\$132,383	\$763	\$390,778	\$28,797	\$4,484	\$357,497	\$239,893

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
<i>Los Angeles Co (cont'd)</i>									
	West Hollywood	\$254,332	\$44,000	\$2,500	\$300,832	\$109,089	\$0	\$191,743	\$10,190
	Westlake Village	\$47,179	\$10,210	\$111	\$57,500	\$0	\$0	\$57,500	\$57,501
	Whittier	\$423,839	\$106,776	\$1,476	\$532,091	\$42,653	\$2,734	\$486,704	\$486,704
	County Total:	\$21,257,466	\$11,968,046	\$169,184	\$33,394,696	\$12,453,986	\$181,847	\$20,758,863	\$14,761,289
<i>Orange Co</i>									
	Aliso Viejo	\$717,632	\$61,743	\$1,593	\$780,968	\$39,847	\$0	\$741,121	\$741,121
	Anaheim	\$1,028	\$428,057	\$479	\$429,564	\$356,208	\$5,024	\$68,332	\$65,000
	Brea	\$102,167	\$51,285	\$1,313	\$154,765	\$0	\$0	\$154,765	\$154,765
	Buena Park	\$178,117	\$75,284	\$1,316	\$254,717	\$159,922	\$0	\$94,795	\$228,462
	Costa Mesa	\$754,924	\$138,322	\$3,527	\$896,773	\$288,871	\$0	\$607,902	\$805,170
	County of Orange	\$725,914	\$149,711	\$1,763	\$877,388	\$153,317	\$3,531	\$720,540	\$150,000
	Cypress	\$60,988	\$60,174	\$824	\$121,986	\$0	\$0	\$121,986	\$329,930
	Dana Point	\$243,356	\$31,018	\$646	\$275,020	\$15,258	\$0	\$259,762	\$0
	Fountain Valley	\$224,223	\$69,569	\$1,301	\$295,092	\$1,980	\$0	\$293,112	\$35,000
	Fullerton	\$355,793	\$171,742	\$2,448	\$529,983	\$98,766	\$1,380	\$429,837	\$429,837
	Garden Grove	\$241,770	\$271,186	\$1,550	\$514,506	\$191,710	\$10,804	\$311,991	\$0
	Huntington Beach	\$773,339	\$240,542	\$4,021	\$1,017,902	\$198,119	\$1,066	\$818,717	\$651,087
	Irvine	\$836,967	\$289,386	\$8,760	\$1,135,113	\$341,223	\$7,837	\$786,053	\$950,999
	La Habra	\$68,898	\$75,900	\$508	\$145,306	\$75,900	\$0	\$69,406	\$0
	La Palma	\$60,917	\$19,502	\$47	\$80,466	\$25,000	\$0	\$55,466	\$20,000
	Laguna Beach	\$0	\$28,700	\$143	\$28,843	\$28,836	\$0	\$7	\$32,000
	Laguna Hills	\$34,818	\$37,999	\$63	\$72,880	\$72,880	\$0	\$0	\$0
	Laguna Niguel	\$300,312	\$79,457	\$1,486	\$381,255	\$89,136	\$0	\$292,119	\$275,453
	Laguna Woods	\$51,873	\$20,350	\$75	\$72,298	\$0	\$0	\$72,298	\$50,000
	Lake Forest	\$839,859	\$97,397	\$1,863	\$939,119	\$18,564	\$0	\$920,555	\$0
	Los Alamitos	\$10,784	\$14,293	\$3	\$25,080	\$0	\$0	\$25,080	\$25,080

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
<i>Orange Co (cont'd)</i>									
	Mission Viejo	\$144,248	\$116,681	\$1,267	\$262,196	\$62,772	\$3,689	\$195,735	\$147,615
	Newport Beach	\$544,541	\$106,573	\$6,125	\$657,239	\$6,258	\$0	\$650,981	\$0
	Orange (City)	\$109,514	\$202,414	\$413	\$312,341	\$174,343	\$9,212	\$128,786	\$0
	Placentia	\$190,886	\$64,186	\$353	\$255,425	\$25,727	\$0	\$229,698	\$288,540
	Rancho Santa Margarita	\$235,017	\$60,177	\$716	\$295,910	\$101,958	\$0	\$193,952	\$101,958
	San Clemente	\$473,105	\$80,050	\$2,843	\$555,998	\$45,543	\$0	\$510,455	\$473,105
	San Juan Capistrano	\$406,709	\$43,738	\$1,450	\$451,897	\$28,326	\$0	\$423,571	\$423,571
	Santa Ana	\$608,791	\$303,633	\$2,695	\$915,119	\$325,711	\$0	\$589,408	\$0
	Seal Beach	\$0	\$30,275	\$25	\$30,300	\$60,550	\$0	(\$30,250)	\$7,904
	Stanton	\$62,136	\$35,528	\$265	\$97,929	\$2,165	\$1,789	\$93,975	\$0
	Tustin	\$210,861	\$95,815	\$963	\$307,639	\$210,476	\$23	\$97,140	\$100,000
	Villa Park	\$13,720	\$6,564	\$30	\$20,314	\$0	\$330	\$19,984	\$15,000
	Westminster	\$358,601	\$113,234	\$1,829	\$473,664	\$77,586	\$5,662	\$390,416	\$390,416
	Yorba Linda	\$940,494	\$82,405	\$8,705	\$1,031,604	\$129,466	\$0	\$902,138	\$120,000
	<i>County Total:</i>	\$10,882,303	\$3,752,889	\$61,407	\$14,696,599	\$3,406,418	\$50,347	\$11,239,834	\$7,012,013
<i>Riverside Co.</i>									
	Banning	\$206,098	\$37,241	\$1,082	\$244,421	\$3,000	\$0	\$241,421	\$206,098
	Beaumont	\$103,324	\$49,178	\$114	\$152,616	\$26,704	\$900	\$125,012	\$125,012
	Calimesa	\$26,323	\$9,807	\$31	\$36,161	\$0	\$262	\$35,899	\$25,000
	Canyon Lake	\$59,058	\$12,565	\$517	\$72,140	\$0	\$0	\$72,140	\$68,671
	Cathedral City	\$8,553	\$64,739	\$2,133	\$75,425	\$46,240	\$0	\$29,186	\$29,184
	Coachella	\$20,721	\$52,868	\$0	\$73,589	\$31,721	\$0	\$41,868	\$20,000
	Corona	\$429,253	\$194,726	\$5,098	\$629,076	\$67,545	\$1,199	\$560,332	\$374,500
	County of Riverside	\$345,785	\$451,486	\$880	\$798,151	\$687,384	\$16,622	\$94,145	\$451,486
	Desert Hot Springs	\$9,773	\$34,282	\$21	\$44,076	\$72,969	\$25	(\$28,917)	\$31,683
	Eastvale	\$73,572	\$71,753	\$283	\$145,608	\$6,037	\$0	\$139,571	\$66,428

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
<i>Riverside Co (cont'd)</i>									
	Hemet	\$195,049	\$100,253	\$1,517	\$296,819	\$108,805	\$4,000	\$184,015	\$184,015
	Indian Wells	\$0	\$6,015	\$17	\$6,032	\$5,978	\$0	\$54	\$5,500
	Indio	\$164,312	\$74,625	\$793	\$239,730	\$60,508	\$0	\$179,222	\$175,000
	Jurupa Valley	\$226,862	\$120,845	\$109	\$347,816	\$0	\$0	\$347,816	\$120,845
	La Quinta	\$105,794	\$28,452	\$318	\$134,564	\$28,452	\$0	\$106,112	\$105,794
	Lake Elsinore	\$222,147	\$68,631	\$2,387	\$293,165	\$71,143	\$3,500	\$218,522	\$385,547
	Menifee	\$412,859	\$102,108	\$1,386	\$516,353	\$138,625	\$25	\$377,703	\$186,893
	Moreno Valley	\$215,480	\$244,155	\$1,609	\$461,244	\$345,653	\$0	\$115,591	\$100,000
	Murrieta	\$340,821	\$95,214	\$1,317	\$437,352	\$149,815	\$3,606	\$283,931	\$0
	Norco	\$79,789	\$32,859	\$100	\$112,748	\$0	\$1,500	\$111,248	\$95,000
	Palm Desert	\$321,335	\$61,772	\$1,275	\$384,381	\$38,671	\$0	\$345,710	\$345,730
	Palm Springs	\$55,000	\$56,507	\$503	\$112,010	\$37,768	\$0	\$74,242	\$50,000
	Perris	\$244,751	\$65,072	\$2,770	\$312,593	\$108,575	\$0	\$204,018	\$204,019
	Rancho Mirage	\$24,322	\$21,056	\$1,672	\$47,049	\$12,633	\$0	\$34,416	\$24,322
	Riverside (City)	\$459,863	\$384,453	\$5,236	\$849,552	\$328,268	\$1,760	\$519,524	\$325,082
	San Jacinto	\$161,253	\$55,939	\$828	\$218,020	\$82,433	\$0	\$135,587	\$6,000
	Temecula	\$366,478	\$128,125	\$1,747	\$496,350	\$33,519	\$0	\$462,831	\$362,831
	Wildomar	\$182,630	\$41,070	\$0	\$223,700	\$134,396	\$1,800	\$87,504	\$84,405
	County Total:	\$5,061,205	\$2,665,797	\$33,740	\$7,760,742	\$2,626,842	\$35,198	\$5,098,703	\$4,159,045
<i>San Bernardino Co</i>									
	Big Bear Lake	\$36,017	\$4,550	\$83	\$40,650	\$5,729	\$0	\$34,921	\$34,921
	Chino	\$349,063	\$99,102	\$2,288	\$450,453	\$77,883	\$0	\$372,570	\$200,000
	Chino Hills	\$207,987	\$94,330	\$3,977	\$306,294	\$129,982	\$162	\$176,150	\$0
	Colton	\$390,710	\$48,592	\$934	\$440,236	\$14,333	\$0	\$425,903	\$390,710
	County of San	\$190,226	\$266,377	\$2,141	\$458,744	\$271,319	\$13,319	\$174,106	\$174,106
	Fontana	\$713,260	\$249,686	\$19,041	\$981,987	\$11,631	\$0	\$970,356	\$24,000

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
<i>San Bernardino Co (cont'd)</i>									
	Grand Terrace	\$79,494	\$14,528	\$74	\$94,096	\$0	\$0	\$94,096	\$60,000
	Highland	\$467,006	\$66,858	\$928	\$534,792	\$50,161	\$0	\$484,631	\$155,000
	Loma Linda	\$73,431	\$29,018	\$165	\$102,614	\$20,175	\$1,451	\$80,988	\$26,300
	Montclair	\$126,403	\$49,397	\$460	\$176,260	\$42,810	\$0	\$133,450	\$50,000
	Ontario	\$836,819	\$207,301	\$8,332	\$1,052,452	\$232,458	\$10,365	\$809,629	\$836,819
	Rancho Cucamonga	\$396,407	\$187,402	\$5,765	\$589,574	\$92,509	\$2,750	\$494,315	\$289,554
	Redlands	\$665,176	\$87,109	\$7,188	\$759,473	\$118,933	\$0	\$640,540	\$631,100
	Rialto	\$137,987	\$123,742	\$993	\$262,722	\$73,437	\$6,187	\$183,099	\$183,098
	San Bernardino (City)	\$165,700	\$222,860	\$380	\$388,939	\$65,054	\$11,143	\$312,742	\$250,000
	Upland	\$61,632	\$92,930	\$24	\$154,586	\$74,873	\$4,647	\$75,066	\$61,632
	Yucaipa	\$193,950	\$64,582	\$200	\$258,732	\$15,260	\$0	\$243,471	\$235,000
	County Total:	\$5,091,268	\$1,908,363	\$52,973	\$7,052,604	\$1,296,547	\$50,024	\$5,706,034	\$3,602,240
	GRAND TOTAL:	\$42,292,242	\$20,295,095	\$317,305	\$62,904,642	\$19,783,793	\$317,416	\$42,803,434	\$29,534,586

Number of Local Governments: 162

Local Government Administrative Costs

Fiscal Year 2013 - 2014			
Local Government	Administrative Costs	Motor Vehicle Revenues	Admin Costs as % of Revenues
Agoura Hills	\$1,200	\$25,340	5%
Alhambra	\$172	\$103,400	0%
Aliso Viejo	\$0	\$61,743	0%
Anaheim	\$5,024	\$428,057	1%
Arcadia	\$0	\$70,433	0%
Artesia	\$0	\$94,722	0%
Azusa	\$2,350	\$43,601	5%
Baldwin Park	\$0	\$94,632	0%
Banning	\$0	\$37,241	0%
Beaumont	\$900	\$49,178	2%
Bell	\$0	\$40,556	0%
Bell Gardens	\$0	\$52,193	0%
Bellflower	\$0	\$95,835	0%
Beverly Hills	\$0	\$42,429	0%
Big Bear Lake	\$0	\$4,550	0%
Brea	\$0	\$51,285	0%
Buena Park	\$0	\$75,284	0%
Burbank	\$0	\$130,459	0%
Calabasas	\$0	\$29,236	0%
Calimesa	\$262	\$9,807	3%
Canyon Lake	\$0	\$12,565	0%
Carson	\$0	\$114,510	0%
Cathedral City	\$0	\$64,739	0%
Cerritos	\$3,072	\$61,446	5%
Chino	\$0	\$99,102	0%
Chino Hills	\$162	\$94,330	0%
Claremont	\$0	\$49,222	0%
Coachella	\$0	\$52,868	0%
Colton	\$0	\$48,592	0%
Commerce	\$0	\$15,864	0%
Compton	\$0	\$181,749	0%
Corona	\$1,199	\$194,726	1%
Costa Mesa	\$0	\$138,322	0%
County of LA	\$0	\$1,287,684	0%
County of Orange	\$3,531	\$149,711	2%
County of Riverside	\$16,622	\$451,486	4%
County of San Bernardino	\$13,319	\$266,377	5%
Covina	\$2,930	\$60,095	5%
Cudahy	\$0	\$21,329	0%
Culver City	\$0	\$48,571	0%
Cypress	\$0	\$60,174	0%
Dana Point	\$0	\$31,018	0%
Desert Hot Springs	\$25	\$34,282	0%
Diamond Bar	\$0	\$69,510	0%
Downey	\$5,500	\$103,683	5%
Duarte	\$1,330	\$26,582	5%
Eastvale	\$0	\$71,753	0%
El Monte	\$0	\$140,049	0%
El Segundo	\$0	\$20,595	0%
Fontana	\$0	\$249,686	0%
Fountain Valley	\$0	\$69,569	0%
Fullerton	\$1,380	\$171,742	1%

Local Government	Administrative Costs	Motor Vehicle Revenues	Admin Costs as % of Revenues
Garden Grove	\$10,804	\$271,186	4%
Gardena	\$3,693	\$73,867	5%
Glendale	\$0	\$238,537	0%
Glendora	\$3,142	\$62,669	5%
Grand Terrace	\$0	\$14,528	0%
Hawaiian Gardens	\$0	\$17,653	0%
Hawthorne	\$840	\$105,947	1%
Hemet	\$4,000	\$100,253	4%
Hermosa Beach	\$0	\$24,268	0%
Hidden Hills	\$0	\$1,607	0%
Highland	\$0	\$66,858	0%
Huntington Beach	\$1,066	\$240,542	0%
Huntington Park	\$214	\$72,696	0%
Indian Wells	\$0	\$6,015	0%
Indio	\$0	\$74,625	0%
Inglewood	\$0	\$274,517	0%
Irvine	\$7,837	\$289,386	3%
Irwindale	\$0	\$1,604	0%
Jurupa Valley	\$0	\$120,845	0%
La Canada Flintridge	\$0	\$17,078	0%
La Habra	\$0	\$75,900	0%
La Habra Heights	\$0	\$6,474	0%
La Mirada	\$0	\$44,831	0%
La Palma	\$0	\$19,502	0%
La Puente	\$0	\$49,780	0%
La Quinta	\$0	\$28,452	0%
La Verne	\$173	\$30,107	1%
Laguna Beach	\$0	\$28,700	0%
Laguna Hills	\$0	\$37,999	0%
Laguna Niguel	\$0	\$79,457	0%
Laguna Woods	\$0	\$20,350	0%
Lake Elsinore	\$3,500	\$68,631	5%
Lake Forest	\$0	\$97,397	0%
Lakewood	\$4,635	\$100,175	5%
Lawndale	\$0	\$40,926	0%
Loma Linda	\$1,451	\$29,018	5%
Lomita	\$673	\$18,731	4%
Long Beach	\$30,452	\$576,643	5%
Los Alamitos	\$0	\$14,293	0%
Los Angeles (City)	\$73,446	\$4,658,129	2%
Lynwood	\$0	\$86,898	0%
Malibu	\$0	\$15,711	0%
Manhattan Beach	\$1,068	\$32,453	3%
Maywood	\$0	\$32,565	0%
Menifee	\$25	\$102,108	0%
Mission Viejo	\$3,689	\$116,681	3%
Monrovia	\$0	\$33,804	0%
Montclair	\$0	\$49,397	0%
Montebello	\$3,913	\$78,259	5%
Monterey Park	\$0	\$56,358	0%
Moreno Valley	\$0	\$244,155	0%
Murrieta	\$3,606	\$95,214	4%
Newport Beach	\$0	\$106,573	0%
Norco	\$1,500	\$32,859	5%
Norwalk	\$0	\$131,724	0%
Ontario	\$10,365	\$207,301	5%
Orange (City)	\$9,212	\$202,414	5%
Palm Desert	\$0	\$61,772	0%
Palm Springs	\$0	\$56,507	0%

Local Government	Administrative Costs	Motor Vehicle Revenues	Admin Costs as % of Revenues
Palos Verdes Estates	\$0	\$16,813	0%
Paramount	\$3,312	\$67,670	5%
Pasadena	\$0	\$173,993	0%
Perris	\$0	\$65,072	0%
Pico Rivera	\$3,937	\$78,742	5%
Placentia	\$0	\$64,186	0%
Pomona	\$3,727	\$187,465	2%
Rancho Cucamonga	\$2,750	\$187,402	1%
Rancho Mirage	\$0	\$21,056	0%
Rancho Palos Verdes	\$0	\$38,612	0%
Rancho Santa Margarita	\$0	\$60,177	0%
Redlands	\$0	\$87,109	0%
Redondo Beach	\$4,358	\$83,597	5%
Rialto	\$6,187	\$123,742	5%
Riverside (City)	\$1,760	\$384,453	0%
Rolling Hills Estates	\$0	\$7,339	0%
Rosemead	\$0	\$67,733	0%
San Bernardino (City)	\$11,143	\$222,860	5%
San Clemente	\$0	\$80,050	0%
San Dimas	\$2,051	\$41,658	5%
San Fernando	\$0	\$34,598	0%
San Gabriel	\$0	\$36,759	0%
San Jacinto	\$0	\$55,939	0%
San Juan Capistrano	\$0	\$43,738	0%
San Marino	\$0	\$16,158	0%
Santa Ana	\$0	\$303,633	0%
Santa Clarita	\$6,831	\$255,577	3%
Santa Fe Springs	\$0	\$20,687	0%
Santa Monica	\$5,429	\$113,542	5%
Seal Beach	\$0	\$30,275	0%
Sierra Madre	\$0	\$9,944	0%
Signal Hill	\$0	\$13,730	0%
South El Monte	\$0	\$18,495	0%
South Gate	\$6,180	\$116,907	5%
South Pasadena	\$0	\$31,929	0%
Stanton	\$1,789	\$35,528	5%
Temecula	\$0	\$128,125	0%
Temple City	\$0	\$115,349	0%
Torrance	\$0	\$182,439	0%
Tustin	\$23	\$95,815	0%
Upland	\$4,647	\$92,930	5%
Villa Park	\$330	\$6,564	5%
Walnut	\$0	\$37,203	0%
West Covina	\$4,484	\$132,383	3%
West Hollywood	\$0	\$44,000	0%
Westlake Village	\$0	\$10,210	0%
Westminster	\$5,662	\$113,234	5%
Whittier	\$2,734	\$106,776	3%
Wildomar	\$1,800	\$41,070	4%
Yorba Linda	\$0	\$82,405	0%
Yucaipa	\$0	\$64,582	0%

Summary of Spending by Project Sub-Category

Fiscal Year 2013 - 2014

Subcategory	Category	Expenditures	Number of Projects
(1) Alternative Fuels/Electric Vehicles			
(1a)	Alternative Fuel Vehicle Purchases	\$3,937,052	64
(1c)	Alternative Fuel Infrastructure (refueling, etc.)	\$2,337,817	12
(1d)	Electric Vehicle Purchases	\$554,886	8
(1f)	Electric Vehicle Infrastructure	\$53,650	6
(1g)	Mechanic Training on Vehicle Operation & Maintenance	\$4,620	2
(2) Vehicle Emissions Abatement			
(2a)	Off Road Vehicle Cleaner Diesel Purchases, Repowers	\$93,212	1
(2c)	Old Vehicle Scrappage	\$26,716	1
(3) Land Use			
(3a)	Plan Elements	\$1,371,385	13
(3b)	Development Guidelines	\$241,001	7
(3c)	Facilities (Pedestrian, mixed use, etc.)	\$333,565	3
(3d)	Land Use Research	\$24,697	2
(4) Public Transportation (Transit & Rail)			
(4a)	Public Transportation Facilities (multi-modal, shelters)	\$76,857	3
(4c)	Transit Operations (new service, shuttles, fuel subsidies)	\$780,033	7
(4d)	Passenger Fare Subsidies	\$505,974	20
(4e)	Public Transportation Research and Dev	\$21,337	2
(5) Traffic Management			
(5a)	Traffic Calming	\$291,152	12
(5b)	Traffic Flow or Signalization (timing, surveillance)	\$2,115,888	33
(5c)	Alternate Mode Signalization (transit/bike pre-emption)	\$2,000	1
(5d)	Traffic Management Research and Dev	\$9,874	1
(6) Transportation Demand Management			
(6a)	Employer-Based Trip Reduction	\$3,108,872	61
(6b)	Other Trip Reduction Incentive Programs	\$313,343	5
(6c)	Vanpool Programs	\$377,791	6
(6d)	Park and Ride Lots (for carpools, transit)	\$1,046,676	4
(6e)	Telecommunication	\$246,507	9
(6f)	Transportation Management Agencies/Organizations	\$3,513	1
(8) Bicycles			
(8a)	Bicycle Lanes and Trails (also bridges)	\$151,998	7
(8b)	Other Bicycle Facilities (racks, lockers, loop detectors)	\$28,957	4
(8c)	Bicycle Usage (electric bikes, purchases, loaner projects)	\$100,601	7
(8d)	Bicycle Research and Dev (engineering studies)	\$8,326	2
(9) PM10 Reduction Strategies			
(9a)	Road Dust Control (paving roads, shoulders, street sweeping)	\$976,859	17

Subcategory	Category	Expenditures	Number of Projects
	(10) Public Education		
(10a)	Short Term PE (promote transit, rideshare; conferences)	\$129,236	7
(10b)	Long Term PE (curriculum, video, brochures, bilingual)	\$13,503	3
	(11) Miscellaneous Projects		
(11a)	Miscellaneous (use with "Miscellaneous Projects")	\$495,896	22
	Grand Total	\$19,783,793	353

Local Government Projects Funded by Category

Fiscal Year 2013 - 2014

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(1) Alternative Fuels/Electric Vehicles			
(1a) Alternative Fuel Vehicle Purchases			
Alhambra		CNG Street Sweeper Purchase	\$272,969
Alhambra		Purchase of 2 CNG Honda Civics	\$50,001
Arcadia		Purchase One CNG Powered Aerial Tree Truck	\$157,506
Arcadia		Purchase One Hybrid Passenger Car	\$28,066
Azusa		Alternative Fuel Vehicle Purchase	\$13,272
Beaumont		Hybrid car purchase	\$26,704
Bellflower		Purchase CNG Vehicles	\$93,447
Calabasas		Continued Lease of Fleet of 9 Alternative Fuel Vehicles	\$35,577
Chino		Purchase of Honda Civic Hybrids	\$72,586
Colton		Purchase CNG Street sweeper	\$14,333
Corona		Alternative Fuel Vehicle Rebate Program	\$41,856
Corona		Carpool Program (12 CNG Vehicles)	\$4,469
Cudahy		Hybrid Vehicle Lease (3 Vehicles)	\$19,934
Duarte		Purchase of (1) Hybrid Vehicle	\$30,653
Eastvale		CNG Fuel Purchase (Final Year)	\$37
El Monte		Purchase (1) CNG Ford F-250 Truck	\$48,000
El Monte		Purchase (1) Ford CNG F350 Truck	\$13,000
El Segundo		Pool Vehicle Replacements 2013-14 (4 of 4)	\$27,062
El Segundo		Pool Replacement Vehicles 2013-14 (1 of 4)	\$24,082
El Segundo		Pool Vehicle Replacements 2013-14 (2 of 4)	\$24,082
El Segundo		Pool Vehicle Replacement 2013-14 (3 of 4)	\$24,082
Fontana		Alt. Fuel Purchase Rebate Program	\$2,000
Fullerton		CNG Vehicle	\$32,552
Garden Grove		Alternative Fuel Vehicle Rebate Program	\$20,000
Gardena		Purchase of Alternate Fuel Truck	\$59,883
Hawaiian Gardens		2014 C-Max Hybrid Plug In (2 vehicles purchased)	\$67,072
Hawthorne		Alt Fuel Street Sweeping	\$100,000
Hemet		CNG Medium Duty 10 Wheel Dump Truck	\$32,400
Hermosa Beach		Purchase of 2 hybrid vehicles	\$78,192
Highland		Purchase 2013 C-Max Hybrid Vehicle	\$24,321
Huntington Park		Ford Fusions	\$143,228
Huntington Park		Ford C-MAX	\$24,997
Indian Wells		Purchase of one CNG ford Crown Vic for use by City personnel	\$2,397
La Habra Heights		Purchase of One (1) Toyota Prius Plug-in Hybrid Vehicle	\$31,070
La Mirada		Purchase 3 2014 Ford Fusion	\$118,533
La Puente		Purchase of Four (4) Light Duty Hybrid Vehicles	\$112,158
Lakewood		Purchase CNG Truck	\$56,750
Lomita		CNG Street Sweeping Services	\$15,000
Los Angeles (City)		#3 Purchase 13 Kenworth Truck Tractors T660 11.9NG	\$325,000
Los Angeles (City)		#2 Purchase 7 Elgin CNG/LNG Broom Bear Sweepers	\$175,000
Los Angeles (City)		#4 Purchase 4 Peterbilt CNG Model 365 Trucks 8.9L	\$100,000
Malibu		Purchase of Hybrid Vehicle	\$16,000
Menifee		Alternative Fuel Vehicle Purchases (3)	\$114,102
Menifee		Alternative Fuel Vehicle Purchase (1)	\$24,523
Montclair		Purchase of an hybrid light-duty vehicle (1)	\$24,496
Norwalk		Cleaner Street Sweeping Contract	\$87,564
Palos Verdes Estates		Purchase of Alternative Fuel Vehicles	\$52,598
Paramount		Purchase of hybrid vehicles	\$124,195
Perris		CNG Public Works Utility Truck	\$108,575
Pomona		CNG Trash Trucks Lease Payment (22)	\$85,000

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(1a) Alternative Fuel Vehicle Purchases			
Rancho Cucamonga		Purchased 1 Medium Duty CNG Truck	\$56,690
Rancho Palos Verdes		Purchase of Two (2) Alternative Fuel Vehicles	\$54,910
Redlands		Purchased (3) Solid Waste Vehicles	\$90,000
Riverside (City)		Alternative Fuel Vehicle Rebate Program	\$70,000
Rosemead		Purchase Two Hybrid Vehicles	\$74,513
San Jacinto		Purchase of (2) Propane Powered Fleet Trucks	\$76,433
San Juan Capistrano		Alternative Fuel Vehicle	\$25,112
San Marino		Purchase (1) Hybrid Vehicle	\$34,356
South Gate		Alternative Fuel Vehicle Lease	\$22,583
South Pasadena		Purchased (1) CNG Mini Van for Dial-A-Ride Services	\$60,161
South Pasadena		Purchased (1) Plug-in Hybrid	\$36,437
Upland		Vehicle Purchase	\$35,511
Upland		CNG Street Sweeper Lease	\$18,785
Yorba Linda		Vehicle replacement program to alternative fuels	\$102,236
Subcategory Total			\$3,937,052
(1c) Alternative Fuel Infrastructure (refueling, etc.)			
Cathedral City		CNG Fuel Line Extension Fee	\$7,397
Covina		CNG Station Upgrade	\$217,131
Fullerton		CNG Station Upgrades	\$42,832
Hemet		CNG Fill Station	\$76,405
Lakewood		Upgrade CNG Fueling Station Compressors	\$27,500
Los Angeles (City)		N Hollywood Heavy Duty Fleet Maintenance Facility Alt Fuel Upgrade	\$1,518,247
Los Angeles (City)		BOE Alternative Fuel Infrastructure Engineering/Design & Support	\$178,750
Malibu		CNG Fueling Station	\$4,564
Ontario		Upgrade CNG Fueling System	\$207,301
Rancho Cucamonga		CNG Fuel Station Expansion	\$19,955
Redlands		LCNG Station Expansion	\$28,933
West Covina		CNG Fueling Station	\$8,803
Subcategory Total			\$2,337,817
(1d) Electric Vehicle Purchases			
County of Orange		Electric Forklift Replacement Program	\$112,463
Dana Point		Parks and Recreation City fleet utility vehicle	\$15,258
Hermosa Beach		Purchase one electric vehicle	\$35,667
Huntington Park		Fire Fly Vehicle	\$103,701
Orange (City)		Community Services Electric Vehicle Initiative	\$13,000
San Dimas		Electric Vehicle Leases	\$3,924
Santa Monica		Electric Vehicle Purchases	\$180,000
Santa Monica		Electric Vehicle Leases	\$90,873
Subcategory Total			\$554,886
(1f) Electric Vehicle Infrastructure			
Claremont		EV Charging Stations for Public Use	\$20,818
County of Orange		EV Charging Station Purchase/Installation	\$5,854
Gardena		EV Charging Infrastructure	\$5,680
Hawaiian Gardens		Installation of Electric Vehicle Charging Station	\$15,500
Hermosa Beach		Electrical Vehicle Charging Station Charge Points	\$4,320
La Habra Heights		Electrical Engineering for EV Charging Station	\$1,478
Subcategory Total			\$53,650
(1g) Mechanic Training, Vehicle Operations & Maintenance			
El Monte		CNG Station Card Reader Expenses	\$2,640
Fountain Valley		CNG Mechanic Training	\$1,980
Subcategory Total			\$4,620
Category Total			\$6,888,024

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(2) Vehicle Emissions Abatement			
(2a) Off Road Vehicle Cleaner Diesel Purchases, Repowers, & Retrofits			
Norwalk	Purchase of Loader Backhoe		\$93,212
			Subcategory Total
			\$93,212
(2c) Old Vehicle Scrappage			
Riverside (City)	AQMD Rule 2202 Compliance		\$26,716
			Subcategory Total
			\$26,716
			Category Total
			\$119,928
(3) Land Use			
(3a) Plan Elements			
Bell	I-710 Corridor Report		\$58,474
Bell Gardens	I-710 Corridor Project		\$10,000
Bell Gardens	Gateway Cities COG		\$8,000
Big Bear Lake	Big Bear Valley Master Plan of Multiple Use Trails		\$1,032
La Palma	General Plan - Traffic Element		\$25,000
Long Beach	Gateway Cities Air Quality Action Plan		\$16,400
Los Angeles (City)	Land Use, Development and Traffic Mitigation Studies		\$1,090,027
Mission Viejo	City of Mission Viejo Air Quality Planning: FY 13-14		\$48,638
Pico Rivera	Development of Strategic Transportation Plans		\$8,101
Rancho Santa Margarita	Circulation Element Update		\$10,000
Santa Ana	Santa Ana General Plan Circulation Element		\$74,770
Santa Ana	Santa Ana General Plan Housing Element		\$18,455
Signal Hill	Gateway Cities Trans Assessment		\$2,488
			Subcategory Total
			\$1,371,385
(3b) Development Guidelines			
Buena Park	Beach Mobility Action Plan		\$86,434
Lakewood	91/605 COG Corridor Study		\$11,000
Los Angeles (City)	Regional Interagency Planning & Coordination Efforts		\$20,335
Norwalk	I-5 Consortium Cities JPA		\$12,427
Placentia	Traffic Model & Fee Program		\$6,000
Santa Ana	Harbor Boulevard Mixed Use Transit Corridor		\$93,308
Whittier	Strategic Transportation Plan		\$11,497
			Subcategory Total
			\$241,001
(3c) Facilities (Pedestrian, mixed use, etc.)			
Aliso Viejo	Alicia Pedestrian Bridge-#088		\$39,847
Los Angeles (City)	Air Quality Coordination, Project Management, & CicLAVia		\$250,000
West Hollywood	Bicycle & Pedestrian Mobility Plan		\$43,718
			Subcategory Total
			\$333,565
(3d) Land Use Research			
Big Bear Lake	Knickerbocker Creek Trail Design		\$4,697
County of LA	Clean Air Plan Implementation		\$20,000
			Subcategory Total
			\$24,697
			Category Total
			\$1,970,648
(4) Public Transportation (Transit & Rail)			
(4a) Public Transportation Facilities (multi-modal, shelters)			
Anaheim	Anaheim Canyon Metrolink Platform Improvements		\$4,658
Laguna Niguel	Laguna Niguel/Mission Viejo Metrolink Station		\$9,498
Tustin	Rail Station Parking Structure		\$62,701
			Subcategory Total
			\$76,857

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(4c) Transit Operations (new service, shuttles, fuel subsidies)			
Anaheim	ART Route 17 Shuttle		\$49,911
Huntington Beach	Senior Shuttle		\$38,499
Huntington Beach	4th of July/US Open Shuttle		\$15,728
Los Angeles (City)	Commuter Services Office (Transit-Rail or Bus)		\$590,647
Rancho Palos Verdes	Public Transit Program		\$38,612
Seal Beach	Orange County Senior Transportation Program (Shuttles)		\$30,275
Temecula	Lease Payment for Route 55 Temecula Trolley Service		\$16,361
Subcategory Total			\$780,033
(4d) Passenger Fare Subsidies			
Anaheim	Metrolink OCTA		\$139,797
Azusa	Transit Pass Subsidy		\$16,690
Claremont	City Employee Trip Reduction Program		\$1,501
Corona	Corona Cruiser Passenger Fare Subsidy		\$14,517
County of San Bernardino	Transit Subsidy		\$2,400
Covina	Commuter Choice Reimbursement Program		\$9,259
Garden Grove	Transit Subsidy Program (Metrolink & OCTA)		\$25,266
Laguna Beach	Free Mainline Service during Summer		\$15,636
Laguna Beach	Free Ride to Work Bus Pass Program		\$13,200
Monrovia	Discount Bus Passes		\$3,301
Norwalk	Transit Subsidy		\$30,000
Pasadena	Transit Subsidy		\$109,800
Placentia	Senior Citizen Transport		\$5,636
Riverside (City)	Riverside Go Transit Bus Pass Subsidy Program		\$74,900
Riverside (City)	City Pass Program		\$17,543
South El Monte	Bus Pass Subsidy Program		\$6,972
South El Monte	Go Rio Bus Pass Program		\$2,326
South Pasadena	South Pasadena Transit Subsidy Program		\$301
Walnut	Bus Pass Subsidies		\$7,660
Whittier	Go Rio Bus Pass Program		\$9,268
Subcategory Total			\$505,974
(4e) Public Transportation Research and Dev			
Carson	Public Transportation - Research and Development		\$7,337
South Gate	Eco-Rapid Transit		\$14,000
Subcategory Total			\$21,337
Category Total			\$1,384,200
(5) Traffic Management			
(5a) Traffic Calming			
Costa Mesa	East 19th Safe Route to School Project		\$6,120
Costa Mesa	Placentia Ave. & 20th St. Flashing Crosswalk		\$3,351
Irvine	Parking Lot Control		\$503
Irwindale	Vincent Street Resurfacing Project		\$1,604
Rancho Santa Margarita	Trabuco Mesa Bulbout Improvements		\$39,958
Rancho Santa Margarita	Crosswalk LED Signs		\$2,000
Rancho Santa Margarita	Speed Feedback Signs		\$2,000
San Clemente	Esplanade Bulb-out		\$45,543
Tustin	Intersection Enhancement		\$51,195
West Hollywood	Traffic Calming Design Program		\$4,482
Wildomar	Unpaved Roadway Program		\$133,129
Wildomar	Traffic Calming Signage (Lost Road)		\$1,267
Subcategory Total			\$291,152

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(5b) Traffic Flow or Signalization (timing, surveillance)			
Artesia		Signalization Upgrade Project	\$3,000
Artesia		Master Signal Computer Maintenance	\$2,635
Costa Mesa		Victoria St. and Valley Rd. Improvements	\$75,919
Costa Mesa		West 19th St. Pedestrian Improvements	\$67,804
Costa Mesa		Harbor Blvd. & Wilson St. Improvements	\$39,492
Costa Mesa		Baker St./Placentia Ave. Traffic Signal Sync. Project	\$34,861
Costa Mesa		Victoria St. Traffic Signal Synchronization Project	\$27,335
Costa Mesa		17th St. Traffic Signal Synchronization Project	\$19,718
Costa Mesa		Harbor Blvd. Widening	\$10,151
Costa Mesa		Sunflower Ave. & Anton Blvd. Signal Improvements	\$24
Diamond Bar		Signal Synchronization Project (DBITS)	\$63,500
Highland		Signal Synchronization	\$25,840
Huntington Beach		Signal Synchronization	\$97,185
Laguna Hills		Paseo De Valencia Traffic Signal Synchronization	\$72,880
Laguna Niguel		Traffic Signal Coordination	\$79,638
Lake Elsinore		Citywide Traffic Signal Coordination Program	\$65,143
Lake Forest		Signal Inter-Rancho & Sports Park	\$6,956
Lake Forest		Lake Forest Drive Traffic Signal Synchronization	\$4,927
Lake Forest		Los Alisos Blvd Traffic Synchronization	\$3,520
Lake Forest		Santa Margarita Pkwy Traffic Synchronization	\$1,700
Lake Forest		Trabuco Road Traffic Signal Synchronization	\$600
Lake Forest		Jeronimo Road Traffic Signal Synchronization	\$515
Lake Forest		Traffic Signal Synchronization Barranca/Muirlands	\$230
Lake Forest		Prof serv- Traffic Engineer for Traffic Signal Monitoring	\$115
Lakewood		Truck-impacted intersection project	\$4,800
Loma Linda		Signal Coordination	\$5,175
Los Angeles (City)		Automatic Traffic Surveillance and Control (ATSAC)	\$1,069,522
Mission Viejo		City of Mission Viejo Traffic Signal Coordination: FY 13-14	\$14,134
Moreno Valley		Moreno Valley Transportation Management Center	\$78,655
Moreno Valley		Traffic Signal Coordination Program	\$30,008
Murrieta		City Fiber Communication Backbone Plans	\$149,815
Placentia		Traffic Signal Coordination. - Rose/Bastanchury/Placentia	\$14,091
Rancho Santa Margarita		Santa Margarita Parkway Signal Synchronization	\$46,000
Subcategory Total			\$2,115,888
(5c) Alternate Mode Signalization (transit/bike pre-emption)			
Rancho Santa Margarita		Countdown Pedestrian Heads	\$2,000
Subcategory Total			\$2,000
(5d) Traffic Management Research and Dev			
Huntington Beach		Traffic Studies/Counts	\$9,874
Subcategory Total			\$9,874
Category Total			\$2,418,914
(6) Transportation Demand Management			
(6a) Employer-Based Trip Reduction			
Anaheim		Trip Reduction Program	\$57,701
Arcadia		Rideshare Plus Program	\$18,349
Azusa		Rideshare Financial Incentives	\$11,707
Baldwin Park		Employee Transportation Program	\$3,224
Bell Gardens		Alternative Transportation Program	\$126
Burbank		Burbank Commuter Program	\$103,653
Carson		Breathe-Employee Ride Share Program	\$60,157
Cerritos		Employee Rideshare Trip Rebate Program	\$29,871
Commerce		Employer Based Trip Reduction	\$15,864
Compton		Rideshare	\$181,749

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(6a) Employer-Based Trip Reduction (cont'd)			
Costa Mesa		Rule 2202 Implementation	\$4,096
County of LA		Countywide Trip Reduction Services/Outreach	\$285,696
County of Orange		Employee Rideshare Program	\$35,000
County of Riverside		Commuter Services Program	\$362,103
County of San Bernardino		Employee Commute Reduction Program	\$268,299
Covina		Commuter Rideshare Program	\$1,856
Downey		Downey Employees "Thumbs Up" Commuting Program	\$115,024
El Monte		Monthly Rideshare Incentives	\$57,678
El Monte		Rule 2202 Filing Fees	\$750
Fontana		Rule 2202 Rideshare Compliance Activities	\$9,631
Fullerton		Rideshare Program	\$20,582
Garden Grove		TDM Services	\$60,104
Glendale		Employer Based Trip Reduction Program	\$238,537
Glendora		Altcom-Alternative Commute Program	\$13,673
Hawthorne		Rideshare Incentives	\$2,000
Hermosa Beach		AQMD Incentives to reduce auto trips	\$1,740
Huntington Beach		Employee Rideshare	\$30,033
Huntington Beach		Emissions Credit	\$6,010
Huntington Beach		Rule 2202 ERS Filing	\$790
Irvine		Rule 2202 Compliance	\$7,200
La Verne		Bike, Carpool, Walk Incentive Program	\$11,184
Long Beach		Rule 2202 Compliance	\$48,688
Los Angeles (City)		Commute Options Office (Carpool)	\$121,604
Los Angeles (City)		Commute Options Office (Bicycle Subsidy)	\$8,686
Los Angeles (City)		Commute Options Office (Walk Subsidy)	\$8,686
Manhattan Beach		Employee Rideshare Program	\$8,460
Monrovia		Clean Air Program	\$4,956
Montclair		Rideshare Incentive Program	\$18,314
Montebello		Rule 2202 Compliance	\$37,251
Monterey Park		Employee Transportation Program	\$23,676
Newport Beach		Employee Rideshare Program	\$6,258
Ontario		Annual Rule 2202 Rideshare Administrative Activities	\$25,157
Orange (City)		Trip Reduction Program	\$157,101
Palm Desert		Ride Share Program	\$1,608
Palm Springs		Rideshare Subsidies	\$5,068
Pomona		Purchase of emission credits	\$5,300
Rancho Cucamonga		Employer Ride Share Program	\$15,864
Redondo Beach		Employee Rideshare	\$43,613
Rialto		Rule 2202 Rideshare Program	\$73,437
San Bernardino (City)		Employee Rideshare Program	\$65,054
Santa Ana		Blue Skies Ride Share Program	\$136,176
Santa Clarita		Rideshare	\$6,720
South Gate		Employer Rideshare Program	\$2,452
Stanton		Alternative Commute Incentive	\$2,165
Torrance		Employee Trip Reduction	\$151,970
Upland		Rideshare Activities	\$20,577
West Hollywood		Alternative Transportation Program	\$33,486
West Hollywood		Alternative Transportation Program	\$22,922
Westminster		Rideshare Program	\$17,349
Whittier		Air Quality Investment Program	\$14,859
Whittier		Employee Rideshare	\$7,029
Subcategory Total			\$3,108,872

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(6b) Other Trip Reduction Incentive Programs			
	Chino	Rule 2202 Registration & Credits	\$5,297
	La Habra	Shuttle Program	\$75,900
	Los Angeles (City)	Alternative Commute "Sharing" Options (Multiple Car share)	\$198,658
	San Juan Capistrano	Senior Nutritional Program Transportation	\$3,214
	Seal Beach	Orange County Senior Transportation Program	\$30,275
		Subcategory Total	\$313,343
(6c) Vanpool Programs			
	Anaheim	Citywide Vanpool Program	\$68,053
	Garden Grove	CNG Vanpool Program	\$41,562
	Garden Grove	Conventional Gasoline Vanpool Program	\$39,643
	Los Angeles (City)	Commuter Services Office (Vanpool Program)	\$138,977
	Pasadena	Vanpool Subsidy	\$29,319
	Westminster	Vanpool Program	\$60,237
		Subcategory Total	\$377,791
(6d) Park and Ride Lots (for carpools, transit)			
	Baldwin Park	Baldwin Park Transit Center Parking Structure	\$667,124
	Irvine	Irvine Station	\$164,946
	Irvine	Irvine Station	\$164,946
	Santa Clarita	McBean Park & Ride	\$49,660
		Subcategory Total	\$1,046,676
(6e) Telecommunication			
	Agoura Hills	Video Conferencing Equipment CH	\$46,244
	County of Riverside	Video Conferencing	\$121,496
	Diamond Bar	NeoGov HR Application and Processing System	\$6,951
	Downey	Upgrade Business License Application/Renewal System	\$2,412
	Fullerton	Telecommunications Project	\$2,800
	Norwalk	iPad Work Order System	\$28,014
	Norwalk	Telecommunications	\$1,760
	West Covina	Website Design & Development	\$9,600
	Yorba Linda	Eagle Aerial Imaging (GIS Web Portal)	\$27,230
		Subcategory Total	\$246,507
(6f) Transportation Management Agencies/Organizations			
	Irvine	Irvine Spectrum Transportation Management Association	\$3,513
		Subcategory Total	\$3,513
		Category Total	\$5,096,702
(8) Bicycles			
(8a) Bicycle Lanes and Trails (also bridges)			
	Beverly Hills	Pilot Bicycle Lane/Routes	\$33,000
	Temecula	Enhancement of Santa Gertrudis Ped/Bike Bridge	\$7,158
	Tustin	Newport Avenue Bike Trail	\$96,580
	Yucaipa	12th and 13th Streets Curb, Gutter, Sidewalk	\$12,365
	Yucaipa	13th Street Curb, Gutter, Sidewalk	\$2,133
	Yucaipa	12th Street Curb, Gutter, Sidewalk	\$739
	Yucaipa	6th Street Curb, Gutter, Sidewalk	\$24
		Subcategory Total	\$151,998
(8b) Other Bicycle Facilities (racks, lockers, loop detectors)			
	Beverly Hills	Bicycle Racks	\$21,358
	Chino Hills	Bicycle Racks	\$118
	Corona	Bicycle Rack at Corona Mall	\$703
	Riverside (City)	Bicycle Lockers and Racks	\$6,778
		Subcategory Total	\$28,957

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(8c) Bicycle Usage (electric bikes, purchases, loaner projects)			
County of San Bernardino	Bicycle Subsidy		\$620
Garden Grove	Bicycle Purchase Assistance		\$5,135
Long Beach	Employee Bike Share-Plaza Level		\$3,024
Los Angeles (City)	#1 LADOT Purchase of Sixty (60) Bicycles-Bike Patrol Program		\$48,723
Orange (City)	Orange Police Bike Team		\$4,242
Pasadena	FoldNGo		\$34,800
Santa Clarita	Bike to Work/Bike Santa Clarita		\$4,056
Subcategory Total			\$100,601
(8d) Bicycle Research and Dev (engineering studies)			
Huntington Park	Bicycle Master Plan		\$8,211
Irvine	Walk and Bike Survey		\$115
Subcategory Total			\$8,326
Category Total			\$289,882
(9) PM10 Reduction Strategies			
(9a) Road Dust Control (paving roads, shoulders, street sweeping)			
Cathedral City	Regional PM10 Street Sweeping Program		\$38,843
Chino Hills	Skate Park Parking Lot (P13006)		\$129,864
Coachella	Regional PM10 Street Sweeping Program		\$31,721
County of Riverside	Regional PM10 Street Sweeping Program		\$36,591
Desert Hot Springs	Local Street Sweeping Operations - M&M Sweeping		\$41,667
Desert Hot Springs	CVAG Regional PM10 Street Sweeping Program		\$20,569
Desert Hot Springs	Local Street Sweeping Operations - Clean Street		\$10,733
El Monte	Regional PM10 Street Sweepers Contract (2 Vehicles)		\$204,084
Indian Wells	Regional PM10 Street Sweeping Program		\$3,581
Indio	Regional PM10 Street Sweeping Program		\$60,508
La Quinta	Regional PM10 Street Sweeping Program		\$28,452
Loma Linda	City Street Sweeping Program		\$15,000
Moreno Valley	Street Sweeping Program - PM10 and PM2.5 Reduction		\$221,990
Palm Desert	Regional PM10 Street Sweeping Program		\$37,063
Palm Springs	CVAG Regional PM10 Street Sweeping Program		\$32,700
Rancho Mirage	Regional PM10 Street Sweeping Program		\$12,633
Walnut	Street Sweeping with CNG Sweeper		\$50,860
Subcategory Total			\$976,859
Category Total			\$976,859
(10) Public Education			
(10a) Short Term PE (promote transit, rideshare; conferences)			
Anaheim	Rideshare Outreach		\$36,088
Buena Park	Promotion Activities for Anaheim Resort Transit Program		\$73,488
Moreno Valley	WRCOG - Clean Cities Coalition		\$15,000
Santa Clarita	Green Holiday Ad		\$179
West Hollywood	Promotional		\$2,217
West Hollywood	Public Awareness and Participation		\$1,150
West Hollywood	Public Awareness		\$1,114
Subcategory Total			\$129,236
(10b) Long Term PE (curriculum, video, brochures, bilingual)			
Santa Ana	Vehicle Wrap - Public Awareness		\$3,002
Santa Clarita	Green Guide		\$501
Santa Monica	Public Education - AltCar Expo		\$10,000
Subcategory Total			\$13,503
Category Total			\$142,739

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
(11) Miscellaneous Projects			
(11a) Miscellaneous (use with "Miscellaneous Projects" Category)			
Alhambra		AQMD Rule 2202 Filing Fees	\$238
Banning		WRCOG Clean Cities	\$3,000
Corona		Western Riverside Council of Gov. Clean Cities Coalition	\$6,000
County of Riverside		Purchase of Mobile Source Emission Reduction Credits	\$110,876
County of Riverside		Clean Cities Coalition	\$25,000
County of Riverside		Clean Air Task Force	\$15,000
County of Riverside		Rule 2202 Multisite Cluster Registration	\$8,948
County of Riverside		Audit of AB 2766 Revenue and Expense	\$7,370
Eastvale		WRCOG Clean City Coalition	\$6,000
Huntington Park		Mounted Patrol Unit	\$58,039
La Mirada		I-5 Capacity Enhancement Innovation Project	\$40,000
Lake Elsinore		Clean Cities Coalition (WRCOG)	\$6,000
Los Angeles (City)		Green Taxi Program	\$20,000
Los Angeles (City)		Annual AB 2766 Fund Audit	\$14,700
Norwalk		AB 2766 Audit Expenses	\$2,500
Pomona		San Gabriel COG Activities	\$13,500
Riverside (City)		ProjectDox	\$107,331
Riverside (City)		Clean Cities Coalition (WRCOG)	\$25,000
San Jacinto		WRCOG Clean Cities Coalition Activities	\$6,000
Temecula		WRCOG Clean Cities Coalition	\$10,000
West Covina		Air Quality Investment Program (AQIP)	\$7,562
West Covina		Electric Vehicle Charging Station	\$2,832
		Subcategory Total	\$495,896
		Category Total	\$495,896

GRAND TOTAL: \$19,783,793

Range of Cost-Effectiveness by Subcategory for Fiscal Year 2013 - 2014

	Lowest	Highest	Lowest	Highest
	(\$/lb)	(\$/lb)	(\$/lb)	(\$/lb)
	(ROG + NO _x + PM _{2.5})		(ROG + NO _x + PM _{2.5} + CO/7)	
(1a) Alternative Fuel Vehicle Purchases	\$0.09	\$10,872.61	\$0.09	\$5,616.97
(1d) Electric Vehicle Purchases	\$14.99	\$2,559.21	\$12.49	\$1,335.65
(1f) Electric Vehicle Infrastructure	\$461.31	\$2,111.59	\$253.47	\$2,111.59
(2a) Off Road Vehicle Cleaner Diesel Purchases, Repowers	\$24.78	\$24.78	\$24.53	\$24.53
(2c) Old Vehicle Scrappage	\$17.32	\$17.32	\$9.96	\$9.96
(4c) Transit Operations (new service, shuttles, fuel)	\$75.54	\$199.29	\$54.23	\$109.83
(4d) Passenger Fare Subsidies	\$2.74	\$716.99	\$1.57	\$421.19
(5a) Traffic Calming	\$30.74	\$36.01	\$18.55	\$21.82
(5b) Traffic Flow or Signalization (timing, surveillance)	\$0.15	\$9,902.70	\$0.11	\$796.77
(6a) Employer-Based Trip Reduction	\$0.20	\$1,360.56	\$0.18	\$769.97
(6b) Other Trip Reduction Incentive Programs	\$83.17	\$267.90	\$48.90	\$157.50
(6c) Vanpool Programs	\$2.50	\$800.92	\$1.47	\$696.75
(6d) Park and Ride Lots (for carpools, transit)	\$14.67	\$250.63	\$8.65	\$147.48
(6e) Telecommunication	\$37.83	\$4,603.33	\$22.41	\$2,501.39
(8a) Bicycle Lanes and Trails (also bridges)	\$0.09	\$5,007.85	\$0.05	\$2,873.76

	Lowest	Highest	Lowest	Highest
	(\$/lb)	(\$/lb)	(\$/lb)	(\$/lb)
	(ROG + NOx + PM2.5)		(ROG + NOx + PM2.5 + CO/7)	
(8c) Bicycle Usage (electric bikes, purchases, loaner)	\$5.43	\$591.51	\$2.89	\$346.67
(9a) Road Dust Control (paving roads, shoulders, street)	\$0.04	\$40.20	\$0.04	\$40.20
(11a) Miscellaneous (use with "Miscellaneous Projects")	\$8.40	\$162.17	\$8.40	\$133.20

Cost-effectiveness is based on MV Fees + MSRC + Moyer funding.

Project Funding Sources

Fiscal Year 2013 - 2014

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Agoura Hills					
Video Conferencing Equipment CH	\$46,244	\$0	\$0	\$0	\$0
Alhambra					
CNG Street Sweeper Purchase	\$272,969	\$0	\$0	\$0	\$0
Purchase of 2 CNG Honda Civics	\$50,001	\$0	\$0	\$0	\$0
AQMD Rule 2202 Filing Fees	\$238	\$0	\$0	\$0	\$0
Aliso Viejo					
Alicia Pedestrian Bridge-#088	\$39,847	\$0	\$0	\$0	\$10,185
Anaheim					
Anaheim Canyon Metrolink Platform Improvements	\$4,658	\$0	\$0	\$0	\$396
ART Route 17 Shuttle	\$49,911	\$0	\$0	\$0	\$4,245
Citywide Vanpool Program	\$68,053	\$0	\$0	\$0	\$13,266
Metrolink OCTA	\$139,797	\$0	\$0	\$0	\$21,885
Rideshare Outreach	\$36,088	\$0	\$0	\$0	\$3,069
Trip Reduction Program	\$57,701	\$0	\$0	\$0	\$4,908
Arcadia					
Purchase One CNG Powered Aerial Tree Truck	\$157,506	\$0	\$0	\$0	\$0
Purchase One Hybrid Passenger Car	\$28,066	\$0	\$0	\$0	\$0
Rideshare Plus Program	\$18,349	\$0	\$0	\$0	\$0
Artesia					
Master Signal Computer Maintenance	\$2,635	\$0	\$0	\$0	\$0
Signalization Upgrade Project	\$3,000	\$0	\$0	\$0	\$2,635
Azusa					
Alternative Fuel Vehicle Purchase	\$13,272	\$0	\$0	\$0	\$0
Rideshare Financial Incentives	\$11,707	\$0	\$0	\$0	\$0
Transit Pass Subsidy	\$16,690	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Baldwin Park					
Baldwin Park Transit Center Parking Structure	\$667,124	\$0	\$0	\$0	\$1,006,612
Employee Transportation Program	\$3,224	\$0	\$0	\$0	\$8,254
Banning					
WRCOG Clean Cities	\$3,000	\$0	\$0	\$0	\$0
Beaumont					
Hybrid car purchase	\$26,704	\$0	\$0	\$0	\$0
Bell					
I-710 Corridor Report	\$58,474	\$0	\$0	\$0	\$0
Bell Gardens					
Alternative Transportation Program	\$126	\$0	\$0	\$0	\$0
Gateway Cities COG	\$8,000	\$0	\$0	\$0	\$0
I-710 Corridor Project	\$10,000	\$0	\$0	\$0	\$0
Bellflower					
Purchase CNG Vehicles	\$93,447	\$0	\$0	\$0	\$0
Beverly Hills					
Bicycle Racks	\$21,358	\$0	\$0	\$0	\$0
Pilot Bicycle Lane/Routes	\$33,000	\$0	\$0	\$0	\$0
Big Bear Lake					
Big Bear Valley Master Plan of Multiple Use Trails	\$1,032	\$0	\$0	\$0	\$0
Knickerbocker Creek Trail Design	\$4,697	\$0	\$0	\$0	\$0
Brea					
	\$0	\$0	\$0	\$0	\$0
Buena Park					
Beach Mobility Action Plan	\$86,434	\$0	\$0	\$0	\$0
Promotion Activities for Anaheim Resort Transit Program	\$73,488	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Burbank					
Burbank Commuter Program	\$103,653	\$0	\$0	\$0	\$0
Calabasas					
Continued Lease of Fleet of 9 Alternative Fuel Vehicles	\$35,577	\$0	\$0	\$0	\$0
Calimesa					
	\$0	\$0	\$0	\$0	\$0
Canyon Lake					
	\$0	\$0	\$0	\$0	\$0
Carson					
Breathe-Employee Ride Share Program	\$60,157	\$0	\$0	\$0	\$0
Public Transportation - Research and Development	\$7,337	\$0	\$0	\$0	\$0
Cathedral City					
CNG Fuel Line Extension Fee	\$7,397	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$38,843	\$0	\$0	\$0	\$0
Cerritos					
Employee Rideshare Trip Rebate Program	\$29,871	\$0	\$0	\$0	\$0
Chino					
Purchase of Honda Civic Hybrids	\$72,586	\$0	\$0	\$0	\$0
Rule 2202 Registration & Credits	\$5,297	\$0	\$0	\$0	\$0
Chino Hills					
Bicycle Racks	\$118	\$0	\$0	\$0	\$0
Skate Park Parking Lot (P13006)	\$129,864	\$0	\$0	\$0	\$0
Claremont					
City Employee Trip Reduction Program	\$1,501	\$0	\$0	\$0	\$0
EV Charging Stations for Public Use	\$20,818	\$0	\$0	\$0	\$0
Coachella					
Regional PM10 Street Sweeping Program	\$31,721	\$0	\$0	\$0	\$0
Colton					
Purchase CNG Street Sweeper	\$14,333	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Commerce					
Employer Based Trip Reduction	\$15,864	\$0	\$0	\$0	\$0
Compton					
Rideshare	\$181,749	\$0	\$0	\$0	\$0
Corona					
Alternative Fuel Vehicle Rebate Program	\$41,856	\$0	\$0	\$0	\$0
Bicycle Rack at Corona Mall	\$703	\$0	\$0	\$0	\$0
Carpool Program (12 CNG Vehicles)	\$4,469	\$0	\$0	\$0	\$0
Corona Cruiser Passenger Fare Subsidy	\$14,517	\$0	\$0	\$0	\$0
Western Riverside Council of Gov. Clean Cities Coalition	\$6,000	\$0	\$0	\$0	\$0
Costa Mesa					
17th St. Traffic Signal Synchronization Project	\$19,718	\$0	\$0	\$0	\$0
Baker St./Placentia Ave. Traffic Signal Sync. Project	\$34,861	\$0	\$0	\$0	\$0
East 19th Safe Route to School Project	\$6,120	\$0	\$0	\$0	\$0
Harbor Blvd. & Wilson St. Improvements	\$39,492	\$0	\$0	\$0	\$0
Harbor Blvd. Widening	\$10,151	\$0	\$0	\$0	\$0
Placentia Ave. & 20th St. Flashing Crosswalk	\$3,351	\$0	\$0	\$0	\$0
Rule 2202 Implementation	\$4,096	\$0	\$0	\$0	\$0
Sunflower Ave. & Anton Blvd. Signal Improvements	\$24	\$0	\$0	\$0	\$0
Victoria St. and Valley Rd. Improvements	\$75,919	\$0	\$0	\$0	\$0
Victoria St. Traffic Signal Synchronization Project	\$27,335	\$0	\$0	\$0	\$0
West 19th St. Pedestrian Improvements	\$67,804	\$0	\$0	\$0	\$0
County of LA					
Clean Air Plan Implementation	\$20,000	\$0	\$0	\$0	\$0
Countywide Trip Reduction Services/Outreach	\$285,696	\$0	\$0	\$0	\$0
County of Orange					
Electric Forklift Replacement Program	\$112,463	\$0	\$0	\$0	\$0
Employee Rideshare Program	\$35,000	\$0	\$0	\$0	\$188,275
EV Charging Station Purchase/Installation	\$5,854	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
County of Riverside					
Audit of AB 2766 Revenue and Expense	\$7,370	\$0	\$0	\$0	\$0
Clean Air Task Force	\$15,000	\$0	\$0	\$0	\$0
Clean Cities Coalition	\$25,000	\$0	\$0	\$0	\$0
Commuter Services Program	\$362,103	\$0	\$0	\$0	\$0
Purchase of Mobile Source Emission Reduction Credits	\$110,876	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$36,591	\$0	\$0	\$0	\$0
Rule 2202 Multisite Cluster Registration	\$8,948	\$0	\$0	\$0	\$0
Video Conferencing	\$121,496	\$0	\$0	\$0	\$0
County of San Bernardino					
Bicycle Subsidy	\$620	\$0	\$0	\$0	\$0
Employee Commute Reduction Program	\$268,299	\$0	\$0	\$0	\$0
Transit Subsidy	\$2,400	\$0	\$0	\$0	\$0
Covina					
CNG Station Upgrade	\$217,131	\$0	\$0	\$0	\$0
Commuter Choice Reimbursement Program	\$9,259	\$0	\$0	\$0	\$0
Commuter Rideshare Program	\$1,856	\$0	\$0	\$0	\$0
Cudahy					
Hybrid Vehicle Lease (3 Vehicles)	\$19,934	\$0	\$0	\$0	\$0
Culver City					
	\$0	\$0	\$0	\$0	\$0
Cypress					
	\$0	\$0	\$0	\$0	\$0
Dana Point					
Parks and Recreation City fleet utility vehicle	\$15,258	\$0	\$0	\$0	\$0
Desert Hot Springs					
CVAG Regional PM10 Street Sweeping Program	\$20,569	\$0	\$0	\$0	\$0
Local Street Sweeping Operations - Clean Street	\$10,733	\$0	\$0	\$0	\$0
Local Street Sweeping Operations - M&M Sweeping	\$41,667	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Diamond Bar					
NeoGov HR Application and Processing System	\$6,951	\$0	\$0	\$0	\$0
Signal Synchronization Project (DBITS)	\$63,500	\$0	\$0	\$0	\$0
Downey					
Downey Employees "Thumbs Up" Commuting Program	\$115,024	\$0	\$0	\$0	\$0
Upgrade Business License Application/Renewal System	\$2,412	\$0	\$0	\$0	\$0
Duarte					
Purchase of (1) Hybrid Vehicle	\$30,653	\$0	\$0	\$0	\$0
Eastvale					
CNG Fuel Purchase (Final Year)	\$37	\$0	\$0	\$0	\$0
WRCOG Clean City Coalition	\$6,000	\$0	\$0	\$0	\$0
El Monte					
CNG Station Card Reader Expenses	\$2,640	\$0	\$0	\$0	\$0
Monthly Rideshare Incentives	\$57,678	\$0	\$0	\$0	\$0
Purchase (1) CNG Ford F-250 Truck	\$48,000	\$0	\$0	\$0	\$0
Purchase (1) Ford CNG F350 Truck	\$13,000	\$0	\$0	\$0	\$51,000
Regional PM10 Street Sweepers Contract (2 Vehicles)	\$204,084	\$0	\$0	\$0	\$0
Rule 2202 Filing Fees	\$750	\$0	\$0	\$0	\$0
El Segundo					
Pool Replacement Vehicles 2013-14 (1 of 4)	\$24,082	\$0	\$0	\$0	\$0
Pool Vehicle Replacement 2013-14 (3 of 4)	\$24,082	\$0	\$0	\$0	\$0
Pool Vehicle Replacements 2013-14 (2 of 4)	\$24,082	\$0	\$0	\$0	\$0
Pool Vehicle Replacements 2013-14 (4 of 4)	\$27,062	\$0	\$0	\$0	\$0
Fontana					
Alt. Fuel Purchase Rebate Program	\$2,000	\$0	\$0	\$0	\$0
Rule 2202 Rideshare Compliance Activities	\$9,631	\$0	\$0	\$0	\$0
Fountain Valley					
CNG Mechanic Training	\$1,980	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Fullerton					
CNG Station Upgrades	\$42,832	\$52,832	\$0	\$0	\$0
CNG Vehicle	\$32,552	\$0	\$0	\$0	\$0
Rideshare Program	\$20,582	\$0	\$0	\$0	\$0
Telecommunications Project	\$2,800	\$0	\$0	\$0	\$0
Garden Grove					
Alternative Fuel Vehicle Rebate Program	\$20,000	\$0	\$0	\$0	\$0
Bicycle Purchase Assistance	\$5,135	\$0	\$0	\$0	\$0
CNG Vanpool Program	\$41,562	\$0	\$0	\$0	\$0
Conventional Gasoline Vanpool Program	\$39,643	\$0	\$0	\$0	\$0
TDM Services	\$60,104	\$0	\$0	\$0	\$0
Transit Subsidy Program (Metrolink & OCTA)	\$25,266	\$0	\$0	\$0	\$0
Gardena					
EV Charging Infrastructure	\$5,680	\$0	\$0	\$0	\$0
Purchase of Alternate Fuel Truck	\$59,883	\$0	\$0	\$0	\$0
Glendale					
Employer Based Trip Reduction Program	\$238,537	\$0	\$0	\$0	\$0
Glendora					
Altcom-Alternative Commute Program	\$13,673	\$0	\$0	\$0	\$0
Grand Terrace					
	\$0	\$0	\$0	\$0	\$0
Hawaiian Gardens					
2014 C-Max Hybrid Plug In (2 vehicles purchased)	\$67,072	\$0	\$0	\$0	\$0
Installation of Electric Vehicle Charging Station	\$15,500	\$0	\$0	\$0	\$0
Hawthorne					
Alt Fuel Street Sweeping	\$100,000	\$0	\$0	\$0	\$0
Rideshare Incentives	\$2,000	\$0	\$0	\$0	\$0
Hemet					
CNG Medium Duty 10 Wheel Dump Truck	\$32,400	\$30,000	\$0	\$0	\$136,030
CNG Fill Station	\$76,405	\$0	\$0	\$0	\$110,162

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Hermosa Beach					
AQMD Incentives to reduce auto trips	\$1,740	\$0	\$0	\$0	\$0
Electrical Vehicle Charging Station Charge Points	\$4,320	\$0	\$0	\$0	\$0
Purchase of 2 hybrid vehicles	\$78,192	\$0	\$0	\$0	\$0
Purchase one electric vehicle	\$35,667	\$0	\$0	\$0	\$0
Hidden Hills					
	\$0	\$0	\$0	\$0	\$0
Highland					
Purchase 2013 C-Max Hybrid Vehicle	\$24,321	\$0	\$0	\$0	\$0
Signal Synchronization	\$25,840	\$0	\$0	\$0	\$0
Huntington Beach					
4th of July/US Open Shuttle	\$15,728	\$0	\$0	\$0	\$0
Emissions Credit	\$6,010	\$0	\$0	\$0	\$0
Employee Rideshare	\$30,033	\$0	\$0	\$0	\$0
Rule 2202 ERS Filing	\$790	\$0	\$0	\$0	\$0
Senior Shuttle	\$38,499	\$0	\$0	\$0	\$285,000
Signal Synchronization	\$97,185	\$0	\$0	\$0	\$0
Traffic Studies/Counts	\$9,874	\$0	\$0	\$0	\$0
Huntington Park					
Bicycle Master Plan	\$8,211	\$0	\$0	\$0	\$0
Fire Fly Vehicle	\$103,701	\$0	\$0	\$0	\$0
Ford C-MAX	\$24,997	\$0	\$0	\$0	\$0
Ford Fusions	\$143,228	\$0	\$0	\$0	\$0
Mounted Patrol Unit	\$58,039	\$0	\$0	\$0	\$0
Indian Wells					
Purchase of one CNG ford Crown Vic for use by City personnel	\$2,397	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$3,581	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Indio					
Regional PM10 Street Sweeping Program	\$60,508	\$0	\$0	\$0	\$0
Inglewood					
	\$0	\$0	\$0	\$0	\$0
Irvine					
Irvine Spectrum Transportation Management Association	\$3,513	\$0	\$0	\$0	\$0
Irvine Station	\$164,946	\$0	\$0	\$0	\$0
Irvine Station	\$164,946	\$0	\$0	\$0	\$0
Parking Lot Control	\$503	\$0	\$0	\$0	\$0
Rule 2202 Compliance	\$7,200	\$0	\$0	\$0	\$0
Walk and Bike Survey	\$115	\$0	\$0	\$0	\$0
Irwindale					
Vincent Street Resurfacing Project	\$1,604	\$0	\$0	\$0	\$0
Jurupa Valley					
	\$0	\$0	\$0	\$0	\$0
La Canada Flintridge					
	\$0	\$0	\$0	\$0	\$0
La Habra					
Shuttle Program	\$75,900	\$0	\$0	\$0	\$0
La Habra Heights					
Electrical Engineering for EV Charging Station	\$1,478	\$0	\$0	\$0	\$0
Purchase of One (1) Toyota Prius Plug-in Hybrid Vehicle	\$31,070	\$0	\$0	\$0	\$0
La Mirada					
I-5 Capacity Enhancement Innovation Project	\$40,000	\$0	\$0	\$0	\$0
Purchase 3 2014 Ford Fusion	\$118,533	\$0	\$0	\$0	\$0
La Palma					
General Plan - Traffic Element	\$25,000	\$0	\$0	\$0	\$0
La Puente					
Purchase of Four (4) Light Duty Hybrid Vehicles	\$112,158	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
La Quinta					
Regional PM10 Street Sweeping Program	\$28,452	\$0	\$0	\$0	\$0
La Verne					
Bike, Carpool, Walk Incentive Program	\$11,184	\$0	\$0	\$0	\$0
Laguna Beach					
Free Mainline Service during Summer	\$15,636	\$0	\$0	\$0	\$3,000
Free Ride to Work Bus Pass Program	\$13,200	\$0	\$0	\$0	\$0
Laguna Hills					
Paseo De Valencia Traffic Signal Synchronization	\$72,880	\$0	\$0	\$0	\$0
Laguna Niguel					
Laguna Niguel/Mission Viejo Metrolink Station	\$9,498	\$0	\$0	\$0	\$0
Traffic Signal Coordination	\$79,638	\$0	\$0	\$0	\$0
Laguna Woods					
	\$0	\$0	\$0	\$0	\$0
Lake Elsinore					
Citywide Traffic Signal Coordination Program	\$65,143	\$0	\$0	\$0	\$0
Clean Cities Coalition (WRCOG)	\$6,000	\$0	\$0	\$0	\$0
Lake Forest					
Jeronimo Road Traffic Signal Synchronization	\$515	\$0	\$0	\$0	\$0
Lake Forest Drive Traffic Signal Synchronization	\$4,927	\$0	\$0	\$0	\$0
Los Alisos Blvd Traffic Synchronization	\$3,520	\$0	\$0	\$0	\$0
Prof serv- Traffic Engineer for Traffic Signal Monitoring	\$115	\$0	\$0	\$0	\$0
Santa Margarita Pkwy Traffic Synchronization	\$1,700	\$0	\$0	\$0	\$0
Signal Inter-Rancho & Sports Park	\$6,956	\$0	\$0	\$0	\$0
Trabuco Road Traffic Signal Synchronization	\$600	\$0	\$0	\$0	\$0
Traffic Signal Synchronization Barranca/Muirlands	\$230	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Lakewood					
91/605 COG Corridor Study	\$11,000	\$0	\$0	\$0	\$0
Purchase CNG Truck	\$56,750	\$0	\$0	\$0	\$0
Truck-impacted intersection project	\$4,800	\$0	\$0	\$0	\$0
Upgrade CNG Fueling Station Compressors	\$27,500	\$0	\$0	\$0	\$0
Lawndale					
	\$0	\$0	\$0	\$0	\$0
Loma Linda					
City Street Sweeping Program	\$15,000	\$0	\$0	\$0	\$0
Signal Coordination	\$5,175	\$0	\$0	\$0	\$0
Lomita					
CNG Street Sweeping Services	\$15,000	\$0	\$0	\$0	\$0
Long Beach					
Gateway Cities Air Quality Action Plan	\$16,400	\$0	\$0	\$0	\$0
Employee Bike Share-Plaza Level	\$3,024	\$0	\$0	\$0	\$0
Rule 2202 Compliance	\$48,688	\$0	\$0	\$0	\$0
Los Alamitos					
	\$0	\$0	\$0	\$0	\$0
Los Angeles (City)					
#1 LADOT Purchase of Sixty (60) Bicycles-Bike Patrol Program	\$48,723	\$0	\$0	\$0	\$50,000
#2 Purchase 7 Elgin CNG/LNG Broom Bear Sweepers	\$175,000	\$0	\$0	\$0	\$2,108,141
#3 Purchase 13 Kenworth Truck Tractors T660 11.9NG	\$325,000	\$0	\$0	\$0	\$2,930,896
#4 Purchase 4 Peterbilt CNG Model 365 Trucks 8.9L	\$100,000	\$0	\$0	\$0	\$850,788
Air Quality Coordination, Project Management, & CicLAvia	\$250,000	\$0	\$0	\$0	\$820,874
Alternative Commute "Sharing" Options (Multiple Car share)	\$198,658	\$0	\$0	\$0	\$17,064
Annual AB 2766 Fund Audit	\$14,700	\$0	\$0	\$0	\$0
Automatic Traffic Surveillance and Control (ATSAC)	\$1,069,522	\$0	\$0	\$0	\$7,499,171
BOE Alternative Fuel Infrastructure Engineering/Design & Support	\$178,750	\$0	\$0	\$0	\$0
Commute Options Office (Bicycle Subsidy)	\$8,686	\$0	\$0	\$0	\$76,500
Commute Options Office (Carpool)	\$121,604	\$0	\$0	\$0	\$2,500
Commute Options Office (Walk Subsidy)	\$8,686	\$0	\$0	\$0	\$16,531
Commuter Services Office (Transit-Rail or Bus)	\$590,647	\$0	\$0	\$0	\$2,000,305

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Los Angeles (City) (cont'd)					
Commuter Services Office (Vanpool Program)	\$138,977	\$0	\$0	\$0	\$687,724
Green Taxi Program	\$20,000	\$0	\$0	\$0	\$298,039
Land Use, Development and Traffic Mitigation Studies	\$1,090,027	\$0	\$0	\$0	\$0
N Hollywood Heavy Duty Fleet Maintenance Facility Alt Fuel Upgrade	\$1,518,247	\$0	\$0	\$0	\$97,500,000
Regional Interagency Planning & Coordination Efforts	\$20,335	\$0	\$0	\$0	\$8,732
Lynwood					
	\$0	\$0	\$0	\$0	\$0
Malibu					
CNG Fueling Station	\$4,564	\$0	\$0	\$0	\$0
Purchase of Hybrid Vehicle	\$16,000	\$0	\$0	\$0	\$9,795
Manhattan Beach					
Employee Rideshare Program	\$8,460	\$0	\$0	\$0	\$0
Maywood					
	\$0	\$0	\$0	\$0	\$0
Menifee					
Alternative Fuel Vehicle Purchase (1)	\$24,523	\$0	\$0	\$0	\$0
Alternative Fuel Vehicle Purchases (3)	\$114,102	\$0	\$0	\$0	\$0
Mission Viejo					
City of Mission Viejo Air Quality Planning: FY 13-14	\$48,638	\$0	\$0	\$0	\$0
City of Mission Viejo Traffic Signal Coordination: FY 13-14	\$14,134	\$0	\$0	\$0	\$323,056
Monrovia					
Clean Air Program	\$4,956	\$0	\$0	\$0	\$0
Discount Bus Passes	\$3,301	\$0	\$0	\$0	\$0
Montclair					
Purchase of an hybrid light-duty vehicle (1)	\$24,496	\$0	\$0	\$0	\$0
Rideshare Incentive Program	\$18,314	\$0	\$0	\$0	\$0
Montebello					
Rule 2202 Compliance	\$37,251	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Monterey Park					
Employee Transportation Program	\$23,676	\$0	\$0	\$0	\$0
Moreno Valley					
Moreno Valley Transportation Management Center	\$78,655	\$0	\$0	\$0	\$0
Street Sweeping Program - PM10 and PM 2.5 Reduction	\$221,990	\$0	\$0	\$0	\$0
Traffic Signal Coordination Program	\$30,008	\$0	\$0	\$0	\$0
WRCOG - Clean Cities Coalition	\$15,000	\$0	\$0	\$0	\$0
Murrieta					
City Fiber Communication Backbone Plans	\$149,815	\$0	\$0	\$0	\$0
Newport Beach					
Employee Rideshare Program	\$6,258	\$0	\$0	\$0	\$0
Norco					
	\$0	\$0	\$0	\$0	\$0
Norwalk					
AB 2766 Audit Expenses	\$2,500	\$0	\$0	\$0	\$0
Cleaner Street Sweeping Contract	\$87,564	\$0	\$0	\$0	\$547,936
I-5 Consortium Cities JPA	\$12,427	\$0	\$0	\$0	\$0
iPad Work Order System	\$28,014	\$0	\$0	\$0	\$0
Purchase of Loader Backhoe	\$93,212	\$0	\$0	\$0	\$0
Telecommunications	\$1,760	\$0	\$0	\$0	\$0
Transit Subsidy	\$30,000	\$0	\$0	\$0	\$0
Ontario					
Annual Rule 2202 Rideshare Administrative Activities	\$25,157	\$0	\$0	\$0	\$0
Upgrade CNG Fueling System	\$207,301	\$0	\$0	\$0	\$0
Orange (City)					
Community Services Electric Vehicle Initiative	\$13,000	\$0	\$0	\$0	\$0
Orange Police Bike Team	\$4,242	\$0	\$0	\$0	\$0
Trip Reduction Program	\$157,101	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Palm Desert					
Regional PM10 Street Sweeping Program	\$37,063	\$0	\$0	\$0	\$0
Ride Share Program	\$1,608	\$0	\$0	\$0	\$0
Palm Springs					
CVAG Regional PM10 Street Sweeping Program	\$32,700	\$0	\$0	\$0	\$0
Rideshare Subsidies	\$5,068	\$0	\$0	\$0	\$0
Palos Verdes Estates					
Purchase of Alternative Fuel Vehicles	\$52,598	\$0	\$0	\$0	\$0
Paramount					
Purchase of hybrid vehicles	\$124,195	\$0	\$0	\$0	\$0
Pasadena					
FoldNGo	\$34,800	\$0	\$0	\$0	\$136,291
Transit Subsidy	\$109,800	\$0	\$0	\$0	\$245,129
Vanpool Subsidy	\$29,319	\$0	\$0	\$0	\$69,654
Perris					
CNG Public Works Utility Truck	\$108,575	\$0	\$0	\$0	\$0
Pico Rivera					
Development of Strategic Transportation Plans	\$8,101	\$0	\$0	\$0	\$0
Placentia					
Senior Citizen Transport	\$5,636	\$0	\$0	\$0	\$0
Traffic Model & Fee Program	\$6,000	\$0	\$0	\$0	\$0
Traffic Signal Coordination - Rose/Bastanchury/Placentia	\$14,091	\$0	\$0	\$0	\$0
Pomona					
CNG Trash Trucks Lease Payment (22)	\$85,000	\$0	\$0	\$0	\$0
Purchase of emission credits	\$5,300	\$0	\$0	\$0	\$0
San Gabriel COG Activities	\$13,500	\$0	\$0	\$0	\$0
Rancho Cucamonga					
CNG Fuel Station Expansion	\$19,955	\$0	\$0	\$0	\$0
Employer Ride Share Program	\$15,864	\$0	\$0	\$0	\$0
Purchased 1 Medium Duty CNG Truck	\$56,690	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Rancho Mirage					
Regional PM10 Street Sweeping Program	\$12,633	\$0	\$0	\$0	\$0
Rancho Palos Verdes					
Public Transit Program	\$38,612	\$0	\$0	\$0	\$0
Purchase of Two (2) Alternative Fuel Vehicles	\$54,910	\$0	\$0	\$0	\$0
Rancho Santa Margarita					
Circulation Element Update	\$10,000	\$0	\$0	\$0	\$0
Countdown Pedestrian Heads	\$2,000	\$0	\$0	\$0	\$0
Crosswalk LED Signs	\$2,000	\$0	\$0	\$0	\$0
Santa Margarita Parkway Signal Synchronization	\$46,000	\$0	\$0	\$0	\$0
Speed Feedback Signs	\$2,000	\$0	\$0	\$0	\$0
Trabuco Mesa Bulb-out Improvements	\$39,958	\$0	\$0	\$0	\$0
Redlands					
LCNG Station Expansion	\$28,933	\$0	\$0	\$0	\$0
Purchased (3) Solid Waste Vehicles	\$90,000	\$90,000	\$0	\$0	\$703,173
Redondo Beach					
Employee Rideshare	\$43,613	\$0	\$0	\$0	\$0
Rialto					
Rule 2202 Rideshare Program	\$73,437	\$0	\$0	\$0	\$0
Riverside (City)					
Alternative Fuel Vehicle Rebate Program	\$70,000	\$0	\$0	\$0	\$0
AQMD Rule 2202 Compliance	\$26,716	\$0	\$0	\$0	\$0
Bicycle Lockers and Racks	\$6,778	\$0	\$0	\$0	\$0
City Pass Program	\$17,543	\$0	\$0	\$0	\$0
Clean Cities Coalition (WRCOG)	\$25,000	\$0	\$0	\$0	\$0
ProjectDox	\$107,331	\$0	\$0	\$0	\$0
Riverside Go Transit Bus Pass Subsidy Program	\$74,900	\$0	\$0	\$0	\$0
Rolling Hills Estates					
	\$0	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Rosemead					
Purchase Two Hybrid Vehicles	\$74,513	\$0	\$0	\$0	\$0
San Bernardino (City)					
Employee Rideshare Program	\$65,054	\$0	\$0	\$0	\$5,200
San Clemente					
Esplanade Bulb-out	\$45,543	\$0	\$0	\$0	\$0
San Dimas					
Electric Vehicle Leases	\$3,924	\$0	\$0	\$0	\$0
San Fernando					
	\$0	\$0	\$0	\$0	\$0
San Gabriel					
	\$0	\$0	\$0	\$0	\$0
San Jacinto					
Purchase of (2) Propane Powered Fleet Trucks	\$76,433	\$0	\$0	\$0	\$0
WRCOG Clean Cities Coalition Activities	\$6,000	\$0	\$0	\$0	\$0
San Juan Capistrano					
Alternative Fuel Vehicle	\$25,112	\$0	\$0	\$0	\$0
Senior Nutritional Program Transportation	\$3,214	\$0	\$0	\$0	\$50,969
San Marino					
Purchase (1) Hybrid Vehicle	\$34,356	\$0	\$0	\$0	\$0
Santa Ana					
Blue Skies Ride Share Program	\$136,176	\$0	\$0	\$0	\$0
Harbor Boulevard Mixed Use Transit Corridor	\$93,308	\$0	\$0	\$0	\$0
Santa Ana General Plan Circulation Element	\$74,770	\$0	\$0	\$0	\$0
Santa Ana General Plan Housing Element	\$18,455	\$0	\$0	\$0	\$0
Vehicle Wrap - Public Awareness	\$3,002	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Santa Clarita					
Bike to Work/Bike Santa Clarita	\$4,056	\$0	\$0	\$0	\$0
Green Guide	\$501	\$0	\$0	\$0	\$0
Green Holiday Ad	\$179	\$0	\$0	\$0	\$0
McBean Park & Ride	\$49,660	\$0	\$2,369,348	\$0	\$0
Rideshare	\$6,720	\$0	\$0	\$0	\$0
Santa Fe Springs					
	\$0	\$0	\$0	\$0	\$0
Santa Monica					
Electric Vehicle Leases	\$90,873	\$0	\$0	\$0	\$0
Electric Vehicle Purchases	\$180,000	\$0	\$0	\$0	\$0
Public Education - AltCar Expo	\$10,000	\$0	\$0	\$0	\$0
Seal Beach					
Orange County Senior Transportation Program	\$30,275	\$0	\$0	\$0	\$0
Orange County Senior Transportation Program (Shuttles)	\$30,275	\$0	\$0	\$0	\$0
Sierra Madre					
	\$0	\$0	\$0	\$0	\$0
Signal Hill					
Gateway Cities Trans Assessment	\$2,488	\$0	\$0	\$0	\$0
South El Monte					
Bus Pass Subsidy Program	\$6,972	\$0	\$0	\$0	\$0
Go Rio Bus Pass Program	\$2,326	\$0	\$0	\$0	\$0
South Gate					
Alternative Fuel Vehicle Lease	\$22,583	\$0	\$0	\$0	\$0
Eco-Rapid Transit	\$14,000	\$0	\$0	\$0	\$0
Employer Rideshare Program	\$2,452	\$0	\$0	\$0	\$0
South Pasadena					
Purchased (1) CNG Mini Van for Dial-A-Ride Services	\$60,161	\$0	\$0	\$0	\$0
Purchased (1) Plug-in Hybrid	\$36,437	\$0	\$0	\$0	\$0
South Pasadena Transit Subsidy Program	\$301	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
Stanton					
Alternative Commute Incentive	\$2,165	\$0	\$0	\$0	\$0
Temecula					
Enhancement of Santa Gertrudis Ped/Bike Bridge	\$7,158	\$0	\$0	\$0	\$0
Lease Payment for Route 55 Temecula Trolley Service	\$16,361	\$0	\$0	\$0	\$0
WRCOG Clean Cities Coalition	\$10,000	\$0	\$0	\$0	\$0
Temple City					
	\$0	\$0	\$0	\$0	\$0
Torrance					
Employee Trip Reduction	\$151,970	\$0	\$0	\$0	\$0
Tustin					
Intersection Enhancement	\$51,195	\$0	\$0	\$0	\$0
Newport Avenue Bike Trail	\$96,580	\$0	\$0	\$0	\$0
Rail Station Parking Structure	\$62,701	\$0	\$0	\$0	\$0
Upland					
CNG Street Sweeper Lease	\$18,785	\$0	\$0	\$0	\$0
Rideshare Activities	\$20,577	\$0	\$0	\$0	\$0
Vehicle Purchase	\$35,511	\$0	\$0	\$0	\$0
Villa Park					
	\$0	\$0	\$0	\$0	\$0
Walnut					
Bus Pass Subsidies	\$7,660	\$0	\$0	\$0	\$0
Street Sweeping with CNG Sweeper	\$50,860	\$0	\$0	\$0	\$0
West Covina					
Air Quality Investment Program (AQIP)	\$7,562	\$0	\$0	\$0	\$0
CNG Fueling Station	\$8,803	\$0	\$0	\$0	\$0
Electric Vehicle Charging Station	\$2,832	\$0	\$0	\$0	\$0
Website Design & Development	\$9,600	\$0	\$0	\$0	\$0

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
West Hollywood					
Alternative Transportation Program	\$22,922	\$0	\$0	\$0	\$0
Alternative Transportation Program	\$33,486	\$0	\$0	\$0	\$0
Bicycle & Pedestrian Mobility Plan	\$43,718	\$0	\$0	\$0	\$55,000
Promotional	\$2,217	\$0	\$0	\$0	\$1,595
Public Awareness	\$1,114	\$0	\$0	\$0	\$966
Public Awareness and Participation	\$1,150	\$0	\$0	\$0	\$8,750
Traffic Calming Design Program	\$4,482	\$0	\$0	\$0	\$11,408
Westlake Village					
	\$0	\$0	\$0	\$0	\$0
Westminster					
Rideshare Program	\$17,349	\$0	\$0	\$0	\$0
Vanpool Program	\$60,237	\$0	\$0	\$0	\$0
Whittier					
Air Quality Investment Program	\$14,859	\$0	\$0	\$0	\$0
Employee Rideshare	\$7,029	\$0	\$0	\$0	\$0
Go Rio Bus Pass Program	\$9,268	\$0	\$0	\$0	\$0
Strategic Transportation Plan	\$11,497	\$0	\$0	\$0	\$0
Wildomar					
Traffic Calming Signage (Lost Road)	\$1,267	\$0	\$0	\$0	\$0
Unpaved Roadway Program	\$133,129	\$0	\$0	\$0	\$0
Yorba Linda					
Eagle Aerial Imaging (GIS Web Portal)	\$27,230	\$0	\$0	\$0	\$54,460
Vehicle replacement program to alternative fuels	\$102,236	\$0	\$0	\$0	\$0
Yucaipa					
12th and 13th Streets Curb, Gutter, Sidewalk	\$12,365	\$0	\$0	\$0	\$0
12th Street Curb, Gutter, Sidewalk	\$739	\$0	\$0	\$0	\$0
13th Street Curb, Gutter, Sidewalk	\$2,133	\$0	\$0	\$0	\$0
6th Street Curb, Gutter, Sidewalk	\$24	\$0	\$0	\$0	\$0
Totals	\$19,783,793	\$172,832	\$2,369,348	\$0	\$118,939,570

Average Cost-Effectiveness by Project

Fiscal Year 2013 - 2014

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)
(1) Alternative Fuels/Electric Vehicles					
(1a) Alternative Fuel Vehicle Purchases					
Colton	Purchase CNG Street Sweeper	\$14,333	\$1,680	37,475	\$0.04
Pomona	CNG Trash Trucks Lease Payment (22)	\$85,000	\$9,965	115,695	\$0.09
Corona	Carpool Program (12 CNG Vehicles)	\$4,469	\$637	338	\$1.88
Riverside (City)	Alternative Fuel Vehicle Rebate Program	\$70,000	\$9,972	1,444	\$6.90
Alhambra	CNG Street Sweeper Purchase	\$272,969	\$32,000	2,581	\$12.40
Upland	CNG Street Sweeper Lease	\$18,785	\$19,349	1,278	\$15.14
Arcadia	Purchase One CNG Powered Aerial Tree Truck	\$157,506	\$18,464	1,140	\$16.20
Hawthorne	Alt Fuel Street Sweeping	\$100,000	\$103,000	3,425	\$30.07
Corona	Alternative Fuel Vehicle Rebate Program	\$41,856	\$43,112	1,338	\$32.23
Calabasas	Continued Lease of Fleet of 9 Alternative Fuel Vehicles	\$35,577	\$5,068	150	\$33.78
Azusa	Alternative Fuel Vehicle Purchase	\$13,272	\$1,891	45	\$41.75
Montclair	Purchase of an hybrid light-duty vehicle (1)	\$24,496	\$3,490	63	\$55.74
San Marino	Purchase (1) Hybrid Vehicle	\$34,356	\$4,894	64	\$76.04
Yorba Linda	Vehicle replacement program to alternative fuels	\$102,236	\$11,985	148	\$81.08
Palos Verdes Estates	Purchase of Alternative Fuel Vehicles	\$52,598	\$7,493	90	\$82.80
Huntington Park	Ford C-MAX	\$24,997	\$3,561	38	\$93.52
La Habra Heights	Purchase of One (1) Toyota Prius Plug-in Hybrid Vehicle	\$31,070	\$3,642	36	\$101.26
Huntington Park	Ford Fusions	\$143,228	\$20,404	201	\$101.54
Fullerton	CNG Vehicle	\$32,552	\$4,637	45	\$102.93
Lomita	CNG Street Sweeping Services	\$15,000	\$1,507	14	\$104.79
Upland	Vehicle Purchase	\$35,511	\$5,059	48	\$104.80
Duarte	Purchase of (1) Hybrid Vehicle	\$30,653	\$4,367	36	\$120.73
Cudahy	Hybrid Vehicle Lease (3 Vehicles)	\$19,934	\$2,840	23	\$124.72
Rancho Palos Verdes	Purchase of Two (2) Alternative Fuel Vehicles	\$54,910	\$5,516	44	\$124.78
El Segundo	Pool Vehicle Replacements 2013-14 (4 of 4)	\$27,062	\$3,855	30	\$130.52
Lakewood	Purchase CNG Truck	\$56,750	\$5,701	38	\$151.09
South Gate	Alternative Fuel Vehicle Lease	\$22,583	\$3,217	20	\$159.28
Arcadia	Purchase One Hybrid Passenger Car	\$28,066	\$3,290	19	\$174.39
El Segundo	Pool Vehicle Replacement 2013-14 (3 of 4)	\$24,082	\$2,419	13	\$187.34

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)	
(1a) Alternative Fuel Vehicle Purchases (cont'd)						
<i>Paramount</i>	Purchase of hybrid vehicles	\$124,195	\$17,692	91	\$195.36	
<i>El Segundo</i>	Pool Replacement Vehicles 2013-14 (1 of 4)	\$24,082	\$3,431	17	\$203.26	
<i>Chino</i>	Purchase of Honda Civic Hybrids	\$72,586	\$10,340	50	\$204.94	
<i>Menifee</i>	Alternative Fuel Vehicle Purchase (1)	\$24,523	\$3,493	17	\$205.77	
<i>El Monte</i>	Purchase (1) Ford CNG F350 Truck	\$13,000	\$1,524	36	\$42.45	
<i>Malibu</i>	Purchase of Hybrid Vehicle	\$16,000	\$2,279	15	\$154.01	
<i>South Pasadena</i>	Purchased (1) Plug-in Hybrid	\$36,437	\$5,191	20	\$259.66	
<i>El Segundo</i>	Pool Vehicle Replacements 2013-14 (2 of 4)	\$24,082	\$3,431	13	\$265.66	
<i>El Monte</i>	Purchase (1) CNG Ford F-250 Truck	\$48,000	\$5,627	17	\$325.98	
<i>San Jacinto</i>	Purchase of (2) Propane Powered Fleet Trucks	\$76,433	\$8,960	20	\$441.48	
<i>Rosemead</i>	Purchase Two Hybrid Vehicles	\$74,513	\$8,735	19	\$464.34	
<i>Norwalk</i>	Cleaner Street Sweeping Contract	\$87,564	\$90,191	1,366	\$66.04	
<i>Bellflower</i>	Purchase CNG Vehicles	\$93,447	\$9,388	19	\$493.36	
<i>Los Angeles (City)</i>	#2 Purchase 7 Elgin CNG/LNG Broom Bear Sweepers	\$175,000	\$20,515	501	\$40.98	
<i>Los Angeles (City)</i>	#4 Purchase 4 Peterbilt CNG Model 365 Trucks 8.9L	\$100,000	\$11,723	199	\$59.04	
<i>San Juan Capistrano</i>	Alternative Fuel Vehicle	\$25,112	\$3,577	6	\$588.60	
<i>Menifee</i>	Alternative Fuel Vehicle Purchases (3)	\$114,102	\$16,255	27	\$609.31	
<i>La Mirada</i>	Purchase 3 2014 Ford Fusion	\$118,533	\$16,886	27	\$621.63	
<i>Hermosa Beach</i>	Purchase of 2 hybrid vehicles	\$78,192	\$11,139	17	\$658.47	
<i>La Puente</i>	Purchase of Four (4) Light Duty Hybrid Vehicles	\$112,158	\$15,978	24	\$679.48	
<i>Gardena</i>	Purchase of Alternate Fuel Truck	\$59,883	\$7,020	10	\$688.32	
<i>Perris</i>	CNG Public Works Utility Truck	\$108,575	\$12,728	16	\$789.68	
<i>South Pasadena</i>	Purchased (1) CNG Mini Van for Dial-A-Ride Services	\$60,161	\$8,570	10	\$887.73	
<i>Highland</i>	Purchase 2013 C-Max Hybrid Vehicle	\$24,321	\$3,465	4	\$891.26	
<i>Hawaiian Gardens</i>	2014 C-Max Hybrid Plug In (2 vehicles purchased)	\$67,072	\$7,863	9	\$914.38	
<i>Redlands</i>	Purchased (3) Solid Waste Vehicles	\$90,000	\$21,101	85	\$248.69	
<i>Garden Grove</i>	Alternative Fuel Vehicle Rebate Program	\$20,000	\$20,600	15	\$1,356.88	
<i>Los Angeles (City)</i>	#3 Purchase 13 Kenworth Truck Tractors T660 11.9NG	\$325,000	\$38,100	244	\$155.98	
<i>Alhambra</i>	Purchase of 2 CNG Honda Civics	\$50,001	\$7,123	4	\$1,844.53	
<i>Beaumont</i>	Hybrid car purchase	\$26,704	\$3,804	2	\$2,231.56	
<i>Rancho Cucamonga</i>	Purchased 1 Medium Duty CNG Truck	\$56,690	\$58,391	10	\$5,616.97	
<i>Hemet</i>	CNG Medium Duty 10 Wheel Dump Truck	\$32,400	\$7,315	3	\$2,857.14	
Subcategory Totals and Average cost-effectiveness:		Subcategory Summary	\$3,932,617	\$805,451	168,791	\$4.77

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)
(1d) Electric Vehicle Purchases					
<i>San Dimas</i>	Electric Vehicle Leases	\$3,924	\$460	37	\$12.49
<i>County of Orange</i>	Electric Forklift Replacement Program	\$112,463	\$13,184	923	\$14.28
<i>Orange (City)</i>	Community Services Electric Vehicle Initiative	\$13,000	\$1,306	63	\$20.86
<i>Santa Monica</i>	Electric Vehicle Purchases	\$180,000	\$21,101	152	\$138.85
<i>Huntington Park</i>	Fire Fly Vehicle	\$103,701	\$14,773	47	\$314.88
<i>Santa Monica</i>	Electric Vehicle Leases	\$90,873	\$93,599	220	\$426.00
<i>Dana Point</i>	Parks and Recreation City fleet utility vehicle	\$15,258	\$1,789	2	\$799.50
<i>Hermosa Beach</i>	Purchase one electric vehicle	\$35,667	\$4,181	3	\$1,335.65
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$554,886	\$150,394	1,447	\$103.94
(1f) Electric Vehicle Infrastructure					
<i>Hermosa Beach</i>	Electrical Vehicle Charging Station Charge Points	\$4,320	\$434	2	\$253.47
<i>County of Orange</i>	EV Charging Station Purchase/Installation	\$5,854	\$686	0	\$2,111.59
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$10,174	\$1,120	2	\$549.90
	Category Summary	\$4,497,677	\$956,965	170,240	\$5.62
(2) Vehicle Emissions Abatement					
(2a) Off Road Vehicle Cleaner Diesel Purchases, Repowers, & Retrofits					
<i>Norwalk</i>	Purchase of Loader Backhoe	\$93,212	\$10,927	445	\$24.53
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$93,212	\$10,927	445	\$24.53
(2c) Old Vehicle Scrappage					
<i>Riverside (City)</i>	AQMD Rule 2202 Compliance	\$26,716	\$27,517	2,764	\$9.96
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$26,716	\$27,517	2,764	\$9.96
	Category Summary	\$119,928	\$38,445	3,209	\$11.98
(4) Public Transportation (Transit & Rail)					
(4c) Transit Operations (new service, shuttles, fuel subsidies)					
<i>Huntington Beach</i>	4th of July/US Open Shuttle	\$15,728	\$16,200	252	\$64.32
<i>Temecula</i>	Lease Payment for Route 55 Temecula Trolley Service	\$16,361	\$3,572	54	\$66.34
<i>Anaheim</i>	ART Route 17 Shuttle	\$49,911	\$51,408	621	\$82.79
<i>Rancho Palos Verdes</i>	Public Transit Program	\$38,612	\$39,770	362	\$109.83
<i>Los Angeles (City)</i>	Commuter Services Office (Transit-Rail or Bus)	\$590,647	\$608,366	11,219	\$54.23
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$711,259	\$719,317	12,508	\$57.51

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)	
(4d) Passenger Fare Subsidies						
<i>Laguna Beach</i>	Free Ride to Work Bus Pass Program	\$13,200	\$13,596	8,661	\$1.57	
<i>Monrovia</i>	Discount Bus Passes	\$3,301	\$3,400	1,667	\$2.04	
<i>Riverside (City)</i>	City Pass Program	\$17,543	\$2,057	250	\$8.23	
<i>Whittier</i>	Go Rio Bus Pass Program	\$9,268	\$9,546	1,042	\$9.16	
<i>South El Monte</i>	Go Rio Bus Pass Program	\$2,326	\$2,396	167	\$14.30	
<i>Azusa</i>	Transit Pass Subsidy	\$16,690	\$17,191	790	\$21.76	
<i>Riverside (City)</i>	Riverside Go Transit Bus Pass Subsidy Program	\$74,900	\$8,781	330	\$26.63	
<i>Walnut</i>	Bus Pass Subsidies	\$7,660	\$7,890	272	\$28.98	
<i>Corona</i>	Corona Cruiser Passenger Fare Subsidy	\$14,517	\$14,953	456	\$32.81	
<i>South Pasadena</i>	South Pasadena Transit Subsidy Program	\$301	\$310	9	\$33.09	
<i>South El Monte</i>	Bus Pass Subsidy Program	\$6,972	\$7,182	167	\$42.88	
<i>Placentia</i>	Senior Citizen Transport	\$5,636	\$5,805	90	\$64.19	
<i>Covina</i>	Commuter Choice Reimbursement Program	\$9,259	\$9,537	137	\$69.80	
<i>Laguna Beach</i>	Free Mainline Service during Summer	\$15,636	\$16,105	264	\$60.97	
<i>County of San Bernardino</i>	Transit Subsidy	\$2,400	\$2,472	33	\$73.84	
<i>Anaheim</i>	Metrolink OCTA	\$139,797	\$143,991	2,018	\$71.34	
<i>Garden Grove</i>	Transit Subsidy Program (Metrolink & OCTA)	\$25,266	\$26,024	217	\$120.07	
<i>Claremont</i>	City Employee Trip Reduction Program	\$1,501	\$1,546	10	\$152.91	
<i>Pasadena</i>	Transit Subsidy	\$109,800	\$113,094	2,307	\$49.02	
<i>Norwalk</i>	Transit Subsidy	\$30,000	\$30,900	73	\$421.19	
Subcategory Totals and Average cost-effectiveness:		Subcategory Summary	\$505,974	\$436,774	18,963	\$23.03
		Category Summary	\$1,217,232	\$1,156,091	31,471	\$36.74
(5) Traffic Management						
(5a) Traffic Calming						
<i>Costa Mesa</i>	East 19th Safe Route to School Project	\$6,120	\$615	33	\$18.55	
<i>Costa Mesa</i>	Placentia Ave. & 20th St. Flashing Crosswalk	\$3,351	\$337	15	\$21.82	
Subcategory Totals and Average cost-effectiveness:		Subcategory Summary	\$9,471	\$951	49	\$19.59
(5b) Traffic Flow or Signalization (timing, surveillance)						
<i>Costa Mesa</i>	Sunflower Ave. & Anton Blvd. Signal Improvements	\$24	\$5	18	\$0.30	
<i>Los Angeles (City)</i>	Automatic Traffic Surveillance and Control (ATSAC)	\$1,069,522	\$1,101,608	10,155,429	\$0.11	
<i>Highland</i>	Signal Synchronization	\$25,840	\$5,642	5,748	\$0.98	

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)	
(5b) Traffic Flow or Signalization (timing, surveillance) (cont'd)						
<i>Loma Linda</i>	Signal Coordination	\$5,175	\$1,130	932	\$1.21	
<i>Diamond Bar</i>	Signal Synchronization Project (DBITS)	\$63,500	\$65,405	44,929	\$1.46	
<i>Murrieta</i>	City Fiber Communication Backbone Plans	\$149,815	\$10,070	2,296	\$4.39	
<i>Costa Mesa</i>	Baker St./Placentia Ave. Traffic Signal Sync. Project	\$34,861	\$7,612	929	\$8.19	
<i>Lake Elsinore</i>	Citywide Traffic Signal Coordination	\$65,143	\$14,224	1,327	\$10.72	
<i>Costa Mesa</i>	17th St. Traffic Signal Synchronization Project	\$19,718	\$4,306	377	\$11.43	
<i>Moreno Valley</i>	Traffic Signal Coordination Program	\$30,008	\$30,908	1,126	\$27.46	
<i>Costa Mesa</i>	Harbor Blvd. Widening	\$10,151	\$2,217	50	\$44.55	
<i>Costa Mesa</i>	West 19th St. Pedestrian Improvements	\$67,804	\$14,805	294	\$50.36	
<i>Artesia</i>	Master Signal Computer Maintenance	\$2,635	\$265	1	\$449.33	
<i>Costa Mesa</i>	Harbor Blvd. & Wilson St. Improvements	\$39,492	\$8,623	12	\$708.19	
<i>Costa Mesa</i>	Victoria St. and Valley Rd. Improvements	\$75,919	\$16,577	21	\$796.77	
Subcategory Totals and Average cost-effectiveness:		Subcategory Summary	\$1,659,607	\$1,283,397	10,213,486	\$0.13
		Category Summary	\$1,669,078	\$1,284,349	10,213,534	\$0.13
(6) Transportation Demand Management						
(6a) Employer-Based Trip Reduction						
<i>Huntington Beach</i>	Emissions Credit	\$6,010	\$604	3,380	\$0.18	
<i>Palm Springs</i>	Rideshare Subsidies	\$5,068	\$5,220	6,332	\$0.82	
<i>Rancho Cucamonga</i>	Employer Ride Share Program	\$15,864	\$16,340	11,354	\$1.44	
<i>County of Orange</i>	Employee Rideshare Program	\$35,000	\$36,050	156,303	\$0.23	
<i>Long Beach</i>	Rule 2202 Compliance	\$48,688	\$4,891	3,320	\$1.47	
<i>County of LA</i>	Countywide Trip Reduction Services/Outreach	\$285,696	\$294,267	104,255	\$2.82	
<i>Costa Mesa</i>	Rule 2202 Implementation	\$4,096	\$4,219	1,152	\$3.66	
<i>Huntington Beach</i>	Employee Rideshare	\$30,033	\$30,934	5,196	\$5.95	
<i>Monrovia</i>	Clean Air Program	\$4,956	\$5,105	699	\$7.30	
<i>Covina</i>	Commuter Rideshare Program	\$1,856	\$1,912	229	\$8.36	
<i>Irvine</i>	Rule 2202 Compliance	\$7,200	\$7,416	802	\$9.25	
<i>Newport Beach</i>	Employee Rideshare Program	\$6,258	\$6,446	635	\$10.15	
<i>Fullerton</i>	Rideshare Program	\$20,582	\$21,200	1,743	\$12.16	
<i>Whittier</i>	Employee Rideshare	\$7,029	\$7,240	451	\$16.04	
<i>Anaheim</i>	Trip Reduction Program	\$57,701	\$59,432	3,953	\$15.03	

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)
(6a) Employer-Based Trip Reduction (cont'd)					
<i>Commerce</i>	Employer Based Trip Reduction	\$15,864	\$16,340	696	\$23.47
<i>Torrance</i>	Employee Trip Reduction	\$151,970	\$156,529	6,172	\$25.36
<i>Fontana</i>	Rule 2202 Rideshare Compliance Activities	\$9,631	\$9,920	347	\$28.60
<i>County of San Bernardino</i>	Employee Commute Reduction Program	\$268,299	\$276,348	9,309	\$29.69
<i>South Gate</i>	Employer Rideshare Program	\$2,452	\$2,526	78	\$32.52
<i>Westminster</i>	Rideshare Program	\$17,349	\$17,869	543	\$32.89
<i>Montebello</i>	Rule 2202 Compliance	\$37,251	\$38,369	1,119	\$34.27
<i>Hawthorne</i>	Rideshare Incentives	\$2,000	\$2,060	56	\$36.54
<i>Palm Desert</i>	Ride Share Program	\$1,608	\$1,656	43	\$38.50
<i>Bell Gardens</i>	Alternative Transportation Program	\$126	\$130	3	\$38.77
<i>Santa Clarita</i>	Rideshare	\$6,720	\$6,922	175	\$39.46
<i>Azusa</i>	Rideshare Financial Incentives	\$11,707	\$12,058	292	\$41.31
<i>Redondo Beach</i>	Employee Rideshare	\$43,613	\$44,921	1,079	\$41.62
<i>Burbank</i>	Burbank Commuter Program	\$103,653	\$106,763	2,102	\$50.80
<i>Monterey Park</i>	Employee Transportation Program	\$23,676	\$24,386	443	\$55.06
<i>Orange (City)</i>	Trip Reduction Program	\$157,101	\$161,814	2,587	\$62.56
<i>West Hollywood</i>	Alternative Transportation Program	\$22,922	\$23,610	357	\$66.07
<i>Glendale</i>	Employer Based Trip Reduction Program	\$238,537	\$245,693	3,652	\$67.28
<i>Cerritos</i>	Employee Rideshare Trip Rebate Program	\$29,871	\$30,767	457	\$67.38
<i>Los Angeles (City)</i>	Commute Options Office (Carpool)	\$121,604	\$125,252	1,880	\$66.62
<i>Hermosa Beach</i>	AQMD Incentives to reduce auto trips	\$1,740	\$1,792	24	\$74.35
<i>Ontario</i>	Annual Rule 2202 Rideshare Administrative Activities	\$25,157	\$25,912	343	\$75.59
<i>San Bernardino (City)</i>	Employee Rideshare Program	\$65,054	\$67,006	927	\$72.29
<i>Glendora</i>	Altcom-Alternative Commute Program	\$13,673	\$14,083	160	\$88.11
<i>Whittier</i>	Air Quality Investment Program	\$14,859	\$15,305	144	\$106.11
<i>La Verne</i>	Bike, Carpool, Walk Incentive Program	\$11,184	\$11,520	104	\$110.29
<i>Arcadia</i>	Rideshare Plus Program	\$18,349	\$18,899	150	\$126.01
<i>El Monte</i>	Monthly Rideshare Incentives	\$57,678	\$59,408	426	\$139.30
<i>Santa Ana</i>	Blue Skies Ride Share Program	\$136,176	\$140,261	862	\$162.71

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)	
(6a) Employer-Based Trip Reduction (cont'd)						
<i>Rialto</i>	Rule 2202 Rideshare Program	\$73,437	\$75,640	407	\$185.81	
<i>County of Riverside</i>	Commuter Services Program	\$362,103	\$372,966	1,995	\$186.93	
<i>Upland</i>	Rideshare Activities	\$20,577	\$21,194	108	\$196.38	
<i>Stanton</i>	Alternative Commute Incentive	\$2,165	\$2,230	10	\$212.95	
<i>Carson</i>	Breathe-Employee Ride Share Program	\$60,157	\$61,962	254	\$243.53	
<i>Baldwin Park</i>	Employee Transportation Program	\$3,224	\$3,321	43	\$77.70	
<i>West Hollywood</i>	Alternative Transportation Program	\$33,486	\$34,491	120	\$287.45	
<i>Downey</i>	Downey Employees "Thumbs Up" Commuting Program	\$115,024	\$118,475	405	\$292.47	
<i>Montclair</i>	Rideshare Incentive Program	\$18,314	\$18,863	64	\$293.08	
<i>Compton</i>	Rideshare	\$181,749	\$187,201	626	\$298.86	
<i>Manhattan Beach</i>	Employee Rideshare Program	\$8,460	\$8,714	21	\$406.70	
<i>Los Angeles (City)</i>	Commute Options Office (Bicycle Subsidy)	\$8,686	\$8,947	198	\$45.14	
<i>Los Angeles (City)</i>	Commute Options Office (Walk Subsidy)	\$8,686	\$8,947	12	\$769.97	
Subcategory Totals and Average cost-effectiveness:		Subcategory Summary	\$3,041,928	\$3,082,343	338,602	\$9.10
(6b) Other Trip Reduction Incentive Programs						
<i>Seal Beach</i>	Orange County Senior Transportation Program	\$30,275	\$31,183	638	\$48.90	
<i>La Habra</i>	Shuttle Program	\$75,900	\$78,177	496	\$157.50	
<i>San Juan Capistrano</i>	Senior Nutritional Program Transportation	\$3,214	\$458	6	\$71.40	
Subcategory Totals and Average cost-effectiveness:		Subcategory Summary	\$109,389	\$109,818	1,140	\$96.30
(6c) Vanpool Programs						
<i>Los Angeles (City)</i>	Commuter Services Office (Vanpool Program)	\$138,977	\$143,146	97,447	\$1.47	
<i>Westminster</i>	Vanpool Program	\$60,237	\$62,044	1,194	\$51.95	
<i>Anaheim</i>	Citywide Vanpool Program	\$68,053	\$70,094	712	\$98.44	
<i>Pasadena</i>	Vanpool Subsidy	\$29,319	\$30,199	415	\$72.79	
<i>Garden Grove</i>	Conventional Gasoline Vanpool Program	\$39,643	\$40,832	122	\$334.24	
<i>Garden Grove</i>	CNG Vanpool Program	\$41,562	\$42,809	61	\$696.75	
Subcategory Totals and Average cost-effectiveness:		Subcategory Summary	\$377,791	\$389,124	99,952	\$3.89
(6d) Park and Ride Lots (for carpools, transit)						
<i>Baldwin Park</i>	Baldwin Park Transit Center Parking Structure	\$667,124	\$687,138	4,659	\$147.48	
<i>Santa Clarita</i>	McBean Park & Ride	\$49,660	\$51,150	5,913	\$8.65	
Subcategory Totals and Average cost-effectiveness:		Subcategory Summary	\$716,784	\$738,288	10,572	\$69.83

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)
(6e) Telecommunication					
<i>West Covina</i>	Website Design & Development	\$9,600	\$964	43	\$22.41
<i>Downey</i>	Upgrade Business License Application/Renewal System	\$2,412	\$527	16	\$33.41
<i>Diamond Bar</i>	NeoGov HR Application and Processing System	\$6,951	\$7,160	38	\$186.22
<i>County of Riverside</i>	Video Conferencing	\$121,496	\$125,141	226	\$554.11
<i>Yorba Linda</i>	Eagle Aerial Imaging (GIS Web Portal)	\$27,230	\$5,946	12	\$479.03
<i>Norwalk</i>	iPad Work Order System	\$28,014	\$28,854	14	\$2,017.59
<i>Agoura Hills</i>	Video Conferencing Equipment CH	\$46,244	\$47,631	19	\$2,501.39
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$241,947	\$216,223	369	\$586.23
	Category Summary	\$4,487,839	\$4,535,796	450,635	\$10.07
(8) Bicycles					
(8a) Bicycle Lanes and Trails (also bridges)					
<i>Yucaipa</i>	6th Street Curb, Gutter, Sidewalk	\$24	\$2	36	\$0.05
<i>Yucaipa</i>	12th Street Curb, Gutter, Sidewalk	\$739	\$62	4	\$17.27
<i>Temecula</i>	Enhancement of Santa Gertrudis Ped/Bike Bridge	\$7,158	\$600	20	\$29.65
<i>Yucaipa</i>	13th Street Curb, Gutter, Sidewalk	\$2,133	\$179	4	\$40.89
<i>Yucaipa</i>	12th and 13th Streets Curb, Gutter, Sidewalk	\$12,365	\$1,036	10	\$101.23
<i>Tustin</i>	Newport Avenue Bike Trail	\$96,580	\$6,492	59	\$110.74
<i>Beverly Hills</i>	Pilot Bicycle Lane/Routes	\$33,000	\$2,764	1	\$2,873.76
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$151,998	\$11,134	134	\$82.79
(8c) Bicycle Usage (electric bikes, purchases, loaner projects)					
<i>Orange (City)</i>	Orange Police Bike Team	\$4,242	\$426	100	\$4.25
<i>Pasadena</i>	FoldNGo	\$34,800	\$12,303	4,258	\$2.89
<i>Garden Grove</i>	Bicycle Purchase Assistance	\$5,135	\$5,289	130	\$40.67
<i>Los Angeles (City)</i>	#1 LADOT Purchase of Sixty (60) Bicycles-Bike Patrol	\$48,723	\$50,185	2,327	\$21.57
<i>County of San Bernardino</i>	Bicycle Subsidy	\$620	\$639	13	\$47.66
<i>Santa Clarita</i>	Bike to Work/Bike Santa Clarita	\$4,056	\$4,178	12	\$346.67
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$97,577	\$73,020	6,841	\$10.67
	Category Summary	\$249,575	\$84,154	6,976	\$12.06

Project Category	Project Name	MV Fees	Air Funds*	Emission Reductions ROG+NOx+PM2.5+CO/7 (lbs/year)	Cost-Effectiveness (\$/lb)
(9) PM10 Reduction Strategies					
(9a) Road Dust Control (paving roads, shoulders, street sweeping)					
<i>Desert Hot Springs</i>	Local Street Sweeping Operations - M&M Sweeping	\$41,667	\$4,885	807	\$6.05
<i>Desert Hot Springs</i>	Local Street Sweeping Operations - Clean Street	\$10,733	\$11,055	1,622	\$6.82
<i>El Monte</i>	Regional PM10 Street Sweepers Contract (2 Vehicles)	\$204,084	\$210,207	18,400	\$11.42
<i>Loma Linda</i>	City Street Sweeping Program	\$15,000	\$1,758	67	\$26.12
<i>Walnut</i>	Street Sweeping with CNG Sweeper	\$50,860	\$52,386	1,928	\$27.17
<i>Palm Springs</i>	CVAG Regional PM10 Street Sweeping Program	\$32,700	\$33,681	869	\$38.77
<i>Moreno Valley</i>	Street Sweeping Program - PM10 and PM2.5 Reduction	\$221,990	\$228,649	5,869	\$38.96
<i>Indian Wells</i>	Regional PM10 Street Sweeping Program	\$3,581	\$3,688	93	\$39.87
<i>Desert Hot Springs</i>	CVAG Regional PM10 Street Sweeping Program	\$20,569	\$21,187	527	\$40.19
<i>Indio</i>	Regional PM10 Street Sweeping Program	\$60,508	\$62,323	1,551	\$40.20
<i>Palm Desert</i>	Regional PM10 Street Sweeping Program	\$37,063	\$38,175	950	\$40.20
<i>County of Riverside</i>	Regional PM10 Street Sweeping Program	\$36,591	\$37,689	938	\$40.20
<i>Cathedral City</i>	Regional PM10 Street Sweeping Program	\$38,843	\$40,008	995	\$40.20
<i>Coachella</i>	Regional PM10 Street Sweeping Program	\$31,721	\$32,672	813	\$40.20
<i>Rancho Mirage</i>	Regional PM10 Street Sweeping Program	\$12,633	\$13,012	324	\$40.20
<i>La Quinta</i>	Regional PM10 Street Sweeping Program	\$28,452	\$29,306	729	\$40.20
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$846,995	\$820,681	36,481	\$22.50
	Category Summary	\$846,995	\$820,681	36,481	\$22.50
(11) Miscellaneous Projects					
(11a) Miscellaneous (use with "Miscellaneous Projects" Category)					
<i>County of Riverside</i>	Purchase of Mobile Source Emission Reduction Credits	\$110,876	\$114,202	13,594	\$8.40
<i>West Covina</i>	Air Quality Investment Program (AQIP)	\$7,562	\$7,789	601	\$12.96
<i>Riverside (City)</i>	ProjectDox	\$107,331	\$10,783	81	\$133.20
Subcategory Totals and Average cost-effectiveness:	Subcategory Summary	\$225,769	\$132,774	14,276	\$9.30
	Category Summary	\$225,769	\$132,774	14,276	\$9.30
	Program Summary	\$13,314,094	\$9,009,255	10,926,821	\$0.82

*Air Funds amortized equals (MV Fees + MSRC + Moyer) multiplied by the Capital Recovery Factor.

Cost-effectiveness is based on air funds and on ROG + NOx + PM2.5 + CO/7.

Only those projects with cost-effectiveness greater than zero are included in this report.

Cost-Effectiveness of Funding by Project

Fiscal Year 2013 - 2014

Project Category	Project Name	Cost-Effectiveness (\$/lb) *Based on ROG+NOx+PM2.5		Cost-Effectiveness (\$/lb) Based on ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(1) Alternative Fuels/Electric Vehicles					
<i>Alhambra</i>	CNG Street Sweeper Purchase	\$12.44	\$12.44	\$12.40	\$12.40
<i>Alhambra</i>	Purchase of 2 CNG Honda Civics	\$3,151.88	\$3,151.88	\$1,844.53	\$1,844.53
<i>Arcadia</i>	Purchase One CNG Powered Aerial Tree	\$16.20	\$16.20	\$16.20	\$16.20
<i>Arcadia</i>	Purchase One Hybrid Passenger Car	\$314.47	\$314.47	\$174.39	\$174.39
<i>Azusa</i>	Alternative Fuel Vehicle Purchase	\$75.30	\$75.30	\$41.75	\$41.75
<i>Beaumont</i>	Hybrid car purchase	\$10,872.61	\$10,872.61	\$2,231.56	\$2,231.56
<i>Bellflower</i>	Purchase CNG Vehicles	\$843.04	\$843.04	\$493.36	\$493.36
<i>Calabasas</i>	Continued Lease of Fleet of 9 Alternative	\$60.92	\$60.92	\$33.78	\$33.78
<i>Chino</i>	Purchase of Honda Civic Hybrids	\$492.09	\$492.09	\$204.94	\$204.94
<i>Colton</i>	Purchase CNG Street Sweeper	\$0.04	\$0.04	\$0.04	\$0.04
<i>Corona</i>	Carpool Program (12 CNG Vehicles)	\$6.95	\$6.95	\$1.88	\$1.88
<i>Corona</i>	Alternative Fuel Vehicle Rebate Program	\$52.79	\$52.79	\$32.23	\$32.23
<i>County of Orange</i>	EV Charging Station Purchase/Installation	\$2,111.59	\$2,111.59	\$2,111.59	\$2,111.59
<i>County of Orange</i>	Electric Forklift Replacement Program	\$14.99	\$14.99	\$14.28	\$14.28
<i>Cudahy</i>	Hybrid Vehicle Lease (3 Vehicles)	\$223.83	\$223.83	\$124.72	\$124.72
<i>Dana Point</i>	Parks and Recreation City fleet utility	\$1,531.91	\$1,531.91	\$799.50	\$799.50
<i>Duarte</i>	Purchase of (1) Hybrid Vehicle	\$206.31	\$206.31	\$120.73	\$120.73
<i>El Monte</i>	Purchase (1) CNG Ford F-250 Truck	\$396.44	\$396.44	\$325.98	\$325.98
<i>El Monte</i>	Purchase (1) Ford CNG F350 Truck	\$51.62	\$254.13	\$42.45	\$208.96
<i>El Segundo</i>	Pool Vehicle Replacements 2013-14 (4 of 4)	\$190.87	\$190.87	\$130.52	\$130.52
<i>El Segundo</i>	Pool Vehicle Replacement 2013-14 (3 of 4)	\$319.30	\$319.30	\$187.34	\$187.34
<i>El Segundo</i>	Pool Replacement Vehicles 2013-14 (1 of 4)	\$297.24	\$297.24	\$203.26	\$203.26
<i>El Segundo</i>	Pool Vehicle Replacements 2013-14 (2 of 4)	\$452.77	\$452.77	\$265.66	\$265.66
<i>Fullerton</i>	CNG Vehicle	\$175.88	\$175.88	\$102.93	\$102.93
<i>Garden Grove</i>	Alternative Fuel Vehicle Rebate Program	\$2,435.52	\$2,435.52	\$1,356.88	\$1,356.88
<i>Gardena</i>	Purchase of Alternate Fuel Truck	\$837.10	\$837.10	\$688.32	\$688.32
<i>Hawaiian Gardens</i>	2014 C-Max Hybrid Plug In (2 vehicles)	\$1,706.88	\$1,706.88	\$914.38	\$914.38

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(1) Alternative Fuels/Electric Vehicles (cont'd)					
<i>Hawthorne</i>	Alt Fuel Street Sweeping	\$44.72	\$44.72	\$30.07	\$30.07
<i>Hemet</i>	CNG Medium Duty 10 Wheel Dump Truck	\$3,169.59	\$10,079.17	\$2,857.14	\$9,085.59
<i>Hermosa Beach</i>	Purchase one electric vehicle	\$2,559.21	\$2,559.21	\$1,335.65	\$1,335.65
<i>Hermosa Beach</i>	Purchase of 2 hybrid vehicles	\$1,063.53	\$1,063.53	\$658.47	\$658.47
<i>Hermosa Beach</i>	Electrical Vehicle Charging Station Charge	\$461.31	\$461.31	\$253.47	\$253.47
<i>Highland</i>	Purchase 2013 C-Max Hybrid Vehicle	\$1,522.95	\$1,522.95	\$891.26	\$891.26
<i>Huntington Park</i>	Ford C-MAX	\$176.51	\$176.51	\$93.52	\$93.52
<i>Huntington Park</i>	Ford Fusions	\$183.11	\$183.11	\$101.54	\$101.54
<i>Huntington Park</i>	Fire Fly Vehicle	\$603.33	\$603.33	\$314.88	\$314.88
<i>La Habra Heights</i>	Purchase of One (1) Toyota Prius Plug-in	\$157.30	\$157.30	\$101.26	\$101.26
<i>La Mirada</i>	Purchase 3 2014 Ford Fusion	\$1,062.23	\$1,062.23	\$621.63	\$621.63
<i>La Puente</i>	Purchase of Four (4) Light Duty Hybrid	\$1,161.08	\$1,161.08	\$679.48	\$679.48
<i>Lakewood</i>	Purchase CNG Truck	\$272.46	\$272.46	\$151.09	\$151.09
<i>Lomita</i>	CNG Street Sweeping Services	\$106.72	\$106.72	\$104.79	\$104.79
<i>Los Angeles (City)</i>	#2 Purchase 7 Elgin CNG/LNG Broom Bear	\$40.98	\$534.58	\$40.98	\$534.58
<i>Los Angeles (City)</i>	#4 Purchase 4 Peterbilt CNG Model 365	\$59.04	\$561.36	\$59.04	\$561.36
<i>Los Angeles (City)</i>	#3 Purchase 13 Kenworth Truck Tractors	\$155.98	\$1,562.60	\$155.98	\$1,562.60
<i>Malibu</i>	Purchase of Hybrid Vehicle	\$276.39	\$445.60	\$154.01	\$248.29
<i>Menifee</i>	Alternative Fuel Vehicle Purchases (3)	\$675.69	\$675.69	\$609.31	\$609.31
<i>Menifee</i>	Alternative Fuel Vehicle Purchase (1)	\$371.00	\$371.00	\$205.77	\$205.77
<i>Montclair</i>	Purchase of an hybrid light-duty vehicle (1)	\$106.79	\$106.79	\$55.74	\$55.74
<i>Norwalk</i>	Cleaner Street Sweeping Contract	\$66.04	\$479.31	\$66.04	\$479.31
<i>Orange (City)</i>	Community Services Electric Vehicle	\$39.97	\$39.97	\$20.86	\$20.86
<i>Palos Verdes Estates</i>	Purchase of Alternative Fuel Vehicles	\$149.36	\$149.36	\$82.80	\$82.80
<i>Paramount</i>	Purchase of hybrid vehicles	\$352.30	\$352.30	\$195.36	\$195.36
<i>Perris</i>	CNG Public Works Utility Truck	\$876.04	\$876.04	\$789.68	\$789.68
<i>Pomona</i>	CNG Trash Trucks Lease Payment (22)	\$0.09	\$0.09	\$0.09	\$0.09
<i>Rancho Cucamonga</i>	Purchased 1 Medium Duty CNG Truck	\$6,837.88	\$6,837.88	\$5,616.97	\$5,616.97
<i>Rancho Palos Verdes</i>	Purchase of Two (2) Alternative Fuel	\$213.22	\$213.22	\$124.78	\$124.78
<i>Redlands</i>	Purchased (3) Solid Waste Vehicles	\$248.69	\$1,220.21	\$248.69	\$1,220.21
<i>Riverside (City)</i>	Alternative Fuel Vehicle Rebate Program	\$13.23	\$13.23	\$6.90	\$6.90
<i>Rosemead</i>	Purchase Two Hybrid Vehicles	\$839.32	\$839.32	\$464.34	\$464.34

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(1) Alternative Fuels/Electric Vehicles (cont'd)					
<i>San Dimas</i>	Electric Vehicle Leases	\$23.93	\$23.93	\$12.49	\$12.49
<i>San Jacinto</i>	Purchase of (2) Propane Powered Fleet	\$4,519.96	\$4,519.96	\$441.48	\$441.48
<i>San Juan Capistrano</i>	Alternative Fuel Vehicle	\$1,110.90	\$1,110.90	\$588.60	\$588.60
<i>San Marino</i>	Purchase (1) Hybrid Vehicle	\$129.94	\$129.94	\$76.04	\$76.04
<i>Santa Monica</i>	Electric Vehicle Leases	\$816.25	\$816.25	\$426.00	\$426.00
<i>Santa Monica</i>	Electric Vehicle Purchases	\$266.04	\$266.04	\$138.85	\$138.85
<i>South Gate</i>	Alternative Fuel Vehicle Lease	\$242.87	\$242.87	\$159.28	\$159.28
<i>South Pasadena</i>	Purchased (1) Plug-in Hybrid	\$443.70	\$443.70	\$259.66	\$259.66
<i>South Pasadena</i>	Purchased (1) CNG Mini Van for Dial-A-	\$1,516.92	\$1,516.92	\$887.73	\$887.73
<i>Upland</i>	CNG Street Sweeper Lease	\$15.60	\$15.60	\$15.14	\$15.14
<i>Upland</i>	Vehicle Purchase	\$179.08	\$179.08	\$104.80	\$104.80
<i>Yorba Linda</i>	Vehicle replacement program to alternative	\$126.19	\$126.19	\$81.08	\$81.08
(2) Vehicle Emissions Abatement					
<i>Norwalk</i>	Purchase of Loader Backhoe	\$24.78	\$24.78	\$24.53	\$24.53
<i>Riverside (City)</i>	AQMD Rule 2202 Compliance	\$17.32	\$17.32	\$9.96	\$9.96
(4) Public Transportation (Transit & Rail)					
<i>Anaheim</i>	MetroLink OCTA	\$122.19	\$141.32	\$71.34	\$82.51
<i>Anaheim</i>	ART Route 17 Shuttle	\$132.02	\$143.25	\$82.79	\$89.83
<i>Azusa</i>	Transit Pass Subsidy	\$37.13	\$37.13	\$21.76	\$21.76
<i>Claremont</i>	City Employee Trip Reduction Program	\$260.99	\$260.99	\$152.91	\$152.91
<i>Corona</i>	Corona Cruiser Passenger Fare Subsidy	\$55.23	\$55.23	\$32.81	\$32.81
<i>County of San Bernardino</i>	Transit Subsidy	\$125.99	\$125.99	\$73.84	\$73.84
<i>Covina</i>	Commuter Choice Reimbursement Program	\$118.80	\$118.80	\$69.80	\$69.80
<i>Garden Grove</i>	Transit Subsidy Program (MetroLink & OCTA)	\$204.95	\$204.95	\$120.07	\$120.07
<i>Huntington Beach</i>	4th of July/US Open Shuttle	\$107.34	\$107.34	\$64.32	\$64.32
<i>Laguna Beach</i>	Free Ride to Work Bus Pass Program	\$2.74	\$2.74	\$1.57	\$1.57
<i>Laguna Beach</i>	Free Mainline Service during Summer	\$106.43	\$126.85	\$60.97	\$72.67
<i>Los Angeles (City)</i>	Commuter Services Office (Transit-Rail or Bus)	\$93.15	\$408.61	\$54.23	\$237.87
<i>Monrovia</i>	Discount Bus Passes	\$3.46	\$3.46	\$2.04	\$2.04
<i>Norwalk</i>	Transit Subsidy	\$716.99	\$716.99	\$421.19	\$421.19
<i>Pasadena</i>	Transit Subsidy	\$83.63	\$270.35	\$49.02	\$158.45

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(4) Public Transportation (Transit & Rail) (cont'd)					
<i>Placentia</i>	Senior Citizen Transport	\$105.86	\$105.86	\$64.19	\$64.19
<i>Rancho Palos Verdes</i>	Public Transit Program	\$199.29	\$199.29	\$109.83	\$109.83
<i>Riverside (City)</i>	Riverside Go Transit Bus Pass Subsidy	\$44.38	\$44.38	\$26.63	\$26.63
<i>Riverside (City)</i>	City Pass Program	\$13.72	\$13.72	\$8.23	\$8.23
<i>South El Monte</i>	Go Rio Bus Pass Program	\$24.46	\$24.46	\$14.30	\$14.30
<i>South El Monte</i>	Bus Pass Subsidy Program	\$73.33	\$73.33	\$42.88	\$42.88
<i>South Pasadena</i>	South Pasadena Transit Subsidy Program	\$56.36	\$56.36	\$33.09	\$33.09
<i>Temecula</i>	Lease Payment for Route 55 Temecula	\$75.54	\$75.54	\$66.34	\$66.34
<i>Walnut</i>	Bus Pass Subsidies	\$49.11	\$49.11	\$28.98	\$28.98
<i>Whittier</i>	Go Rio Bus Pass Program	\$15.56	\$15.56	\$9.16	\$9.16
(5) Traffic Management					
<i>Artesia</i>	Master Signal Computer Maintenance	\$752.04	\$752.04	\$449.33	\$449.33
<i>Costa Mesa</i>	Victoria St. and Valley Rd. Improvements	\$9,902.70	\$9,902.70	\$796.77	\$796.77
<i>Costa Mesa</i>	Harbor Blvd. Widening	\$140.01	\$140.01	\$44.55	\$44.55
<i>Costa Mesa</i>	Placentia Ave. & 20th St. Flashing	\$36.01	\$36.01	\$21.82	\$21.82
<i>Costa Mesa</i>	East 19th Safe Route to School Project	\$30.74	\$30.74	\$18.55	\$18.55
<i>Costa Mesa</i>	17th St. Traffic Signal Synchronization	\$35.93	\$35.93	\$11.43	\$11.43
<i>Costa Mesa</i>	Baker St./Placentia Ave. Traffic Signal Sync.	\$18.73	\$18.73	\$8.19	\$8.19
<i>Costa Mesa</i>	Sunflower Ave. & Anton Blvd. Signal	\$3.67	\$3.67	\$0.30	\$0.30
<i>Costa Mesa</i>	West 19th St. Pedestrian Improvements	\$103.74	\$103.74	\$50.36	\$50.36
<i>Costa Mesa</i>	Harbor Blvd. & Wilson St. Improvements	\$1,204.12	\$1,204.12	\$708.19	\$708.19
<i>Diamond Bar</i>	Signal Synchronization Project (DBITS)	\$2.58	\$2.58	\$1.46	\$1.46
<i>Highland</i>	Signal Synchronization	\$2.05	\$2.05	\$0.98	\$0.98
<i>Lake Elsinore</i>	Citywide Traffic Signal	\$17.26	\$17.26	\$10.72	\$10.72
<i>Loma Linda</i>	Signal Coordination	\$4.33	\$4.33	\$1.21	\$1.21
<i>Los Angeles (City)</i>	Automatic Traffic Surveillance and Control	\$0.15	\$1.18	\$0.11	\$0.87
<i>Moreno Valley</i>	Traffic Signal Coordination Program	\$52.31	\$52.31	\$27.46	\$27.46
<i>Murrieta</i>	City Fiber Communication Backbone Plans	\$10.96	\$10.96	\$4.39	\$4.39
(6) Transportation Demand Management					
<i>Agoura Hills</i>	Video Conferencing Equipment CH	\$4,603.33	\$4,603.33	\$2,501.39	\$2,501.39
<i>Anaheim</i>	Trip Reduction Program	\$25.75	\$27.94	\$15.03	\$16.31
<i>Anaheim</i>	Citywide Vanpool Program	\$167.99	\$200.74	\$98.44	\$117.63

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(6) Transportation Demand Management (cont'd)					
<i>Arcadia</i>	Rideshare Plus Program	\$215.01	\$215.01	\$126.01	\$126.01
<i>Azusa</i>	Rideshare Financial Incentives	\$70.48	\$70.48	\$41.31	\$41.31
<i>Baldwin Park</i>	Baldwin Park Transit Center Parking	\$250.63	\$628.80	\$147.48	\$370.02
<i>Baldwin Park</i>	Employee Transportation Program	\$132.32	\$471.07	\$77.70	\$276.63
<i>Bell Gardens</i>	Alternative Transportation Program	\$66.14	\$66.14	\$38.77	\$38.77
<i>Burbank</i>	Burbank Commuter Program	\$86.68	\$86.68	\$50.80	\$50.80
<i>Carson</i>	Breathe-Employee Ride Share Program	\$415.53	\$415.53	\$243.53	\$243.53
<i>Cerritos</i>	Employee Rideshare Trip Rebate Program	\$114.96	\$114.96	\$67.38	\$67.38
<i>Commerce</i>	Employer Based Trip Reduction	\$40.04	\$40.04	\$23.47	\$23.47
<i>Compton</i>	Rideshare	\$509.92	\$509.92	\$298.86	\$298.86
<i>Costa Mesa</i>	Rule 2202 Implementation	\$6.25	\$6.25	\$3.66	\$3.66
<i>County of LA</i>	Countywide Trip Reduction	\$4.82	\$4.82	\$2.82	\$2.82
<i>County of Orange</i>	Employee Rideshare Program	\$0.39	\$2.51	\$0.23	\$1.47
<i>County of Riverside</i>	Commuter Services Program	\$318.94	\$318.94	\$186.93	\$186.93
<i>County of Riverside</i>	Video Conferencing	\$971.76	\$971.76	\$554.11	\$554.11
<i>County of San Bernardino</i>	Employee Commute Reduction Program	\$50.84	\$50.84	\$29.69	\$29.69
<i>Covina</i>	Commuter Rideshare Program	\$14.24	\$14.24	\$8.36	\$8.36
<i>Diamond Bar</i>	NeoGov HR Application and Processing	\$318.65	\$318.65	\$186.22	\$186.22
<i>Downey</i>	Upgrade Business License	\$56.85	\$56.85	\$33.41	\$33.41
<i>Downey</i>	Downey Employees "Thumbs Up"	\$499.03	\$499.03	\$292.47	\$292.47
<i>El Monte</i>	Monthly Rideshare Incentives	\$238.59	\$238.59	\$139.30	\$139.30
<i>Fontana</i>	Rule 2202 Rideshare Compliance Activities	\$48.80	\$48.80	\$28.60	\$28.60
<i>Fullerton</i>	Rideshare Program	\$13.39	\$13.39	\$12.16	\$12.16
<i>Garden Grove</i>	Conventional Gasoline Vanpool Program	\$529.90	\$529.90	\$334.24	\$334.24
<i>Garden Grove</i>	CNG Vanpool Program	\$800.92	\$800.92	\$696.75	\$696.75
<i>Glendale</i>	Employer Based Trip Reduction Program	\$114.80	\$114.80	\$67.28	\$67.28
<i>Glendora</i>	Altcom-Alternative Commute Program	\$150.34	\$150.34	\$88.11	\$88.11
<i>Hawthorne</i>	Rideshare Incentives	\$65.41	\$65.41	\$36.54	\$36.54
<i>Hermosa Beach</i>	AQMD Incentives to reduce auto trips	\$126.86	\$126.86	\$74.35	\$74.35
<i>Huntington Beach</i>	Emissions Credit	\$0.20	\$0.20	\$0.18	\$0.18
<i>Huntington Beach</i>	Employee Rideshare	\$10.05	\$10.05	\$5.95	\$5.95
<i>Irvine</i>	Rule 2202 Compliance	\$16.02	\$16.02	\$9.25	\$9.25
<i>La Habra</i>	Shuttle Program	\$267.90	\$267.90	\$157.50	\$157.50

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(6) Transportation Demand Management (cont'd)					
<i>La Verne</i>	Bike, Carpool, Walk Incentive Program	\$188.18	\$188.18	\$110.29	\$110.29
<i>Long Beach</i>	Rule 2202 Compliance	\$3.73	\$3.73	\$1.47	\$1.47
<i>Los Angeles (City)</i>	Commute Options Office (Bicycle Subsidy)	\$77.02	\$755.39	\$45.14	\$442.72
<i>Los Angeles (City)</i>	Commute Options Office (Walk Subsidy)	\$1,360.56	\$3,949.93	\$769.97	\$2,235.36
<i>Los Angeles (City)</i>	Commute Options Office (Carpool)	\$113.67	\$116.01	\$66.62	\$67.99
<i>Los Angeles (City)</i>	Commuter Services Office (Vanpool)	\$2.50	\$14.85	\$1.47	\$8.74
<i>Manhattan Beach</i>	Employee Rideshare Program	\$693.93	\$693.93	\$406.70	\$406.70
<i>Monrovia</i>	Clean Air Program	\$12.38	\$12.38	\$7.30	\$7.30
<i>Montclair</i>	Rideshare Incentive Program	\$499.61	\$499.61	\$293.08	\$293.08
<i>Montebello</i>	Rule 2202 Compliance	\$58.48	\$58.48	\$34.27	\$34.27
<i>Monterey Park</i>	Employee Transportation Program	\$93.95	\$93.95	\$55.06	\$55.06
<i>Newport Beach</i>	Employee Rideshare Program	\$17.32	\$17.32	\$10.15	\$10.15
<i>Norwalk</i>	iPad Work Order System	\$3,411.43	\$3,411.43	\$2,017.59	\$2,017.59
<i>Ontario</i>	Annual Rule 2202 Rideshare	\$128.97	\$128.97	\$75.59	\$75.59
<i>Orange (City)</i>	Trip Reduction Program	\$107.03	\$107.03	\$62.56	\$62.56
<i>Palm Desert</i>	Ride Share Program	\$65.91	\$65.91	\$38.50	\$38.50
<i>Palm Springs</i>	Rideshare Subsidies	\$1.41	\$1.41	\$0.82	\$0.82
<i>Pasadena</i>	Vanpool Subsidy	\$123.70	\$417.59	\$72.79	\$245.73
<i>Rancho Cucamonga</i>	Employer Ride Share Program	\$2.50	\$2.50	\$1.44	\$1.44
<i>Redondo Beach</i>	Employee Rideshare	\$71.01	\$71.01	\$41.62	\$41.62
<i>Rialto</i>	Rule 2202 Rideshare Program	\$314.91	\$314.91	\$185.81	\$185.81
<i>San Bernardino (City)</i>	Employee Rideshare Program	\$123.81	\$133.71	\$72.29	\$78.06
<i>San Juan Capistrano</i>	Senior Nutritional Program Transportation	\$119.08	\$2,007.66	\$71.40	\$1,203.74
<i>Santa Ana</i>	Blue Skies Ride Share Program	\$277.61	\$277.61	\$162.71	\$162.71
<i>Santa Clarita</i>	McBean Park & Ride	\$14.67	\$714.83	\$8.65	\$421.38
<i>Santa Clarita</i>	Rideshare	\$67.33	\$67.33	\$39.46	\$39.46
<i>Seal Beach</i>	Orange County Senior Transportation	\$83.17	\$83.17	\$48.90	\$48.90
<i>South Gate</i>	Employer Rideshare Program	\$55.48	\$55.48	\$32.52	\$32.52
<i>Stanton</i>	Alternative Commute Incentive	\$360.91	\$360.91	\$212.95	\$212.95
<i>Torrance</i>	Employee Trip Reduction	\$43.17	\$43.17	\$25.36	\$25.36
<i>Upland</i>	Rideshare Activities	\$333.74	\$333.74	\$196.38	\$196.38

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(6) Transportation Demand Management (cont'd)					
<i>West Covina</i>	Website Design & Development	\$37.83	\$37.83	\$22.41	\$22.41
<i>West Hollywood</i>	Alternative Transportation Program	\$493.35	\$493.35	\$287.45	\$287.45
<i>West Hollywood</i>	Alternative Transportation Program	\$113.17	\$113.17	\$66.07	\$66.07
<i>Westminster</i>	Rideshare Program	\$56.21	\$56.21	\$32.89	\$32.89
<i>Westminster</i>	Vanpool Program	\$250.72	\$250.72	\$51.95	\$51.95
<i>Whittier</i>	Employee Rideshare	\$22.15	\$22.15	\$16.04	\$16.04
<i>Whittier</i>	Air Quality Investment Program	\$148.66	\$148.66	\$106.11	\$106.11
<i>Yorba Linda</i>	Eagle Aerial Imaging (GIS Web Portal)	\$791.03	\$2,373.09	\$479.03	\$1,437.10
(8) Bicycles					
<i>Beverly Hills</i>	Pilot Bicycle Lane/Routes	\$5,007.85	\$5,007.85	\$2,873.76	\$2,873.76
<i>County of San Bernardino</i>	Bicycle Subsidy	\$81.37	\$81.37	\$47.66	\$47.66
<i>Garden Grove</i>	Bicycle Purchase Assistance	\$69.43	\$69.43	\$40.67	\$40.67
<i>Los Angeles (City)</i>	#1 LADOT Purchase of Sixty (60) Bicycles-	\$40.55	\$82.17	\$21.57	\$43.70
<i>Orange (City)</i>	Orange Police Bike Team	\$8.15	\$8.15	\$4.25	\$4.25
<i>Pasadena</i>	FoldNGo	\$5.43	\$26.71	\$2.89	\$14.20
<i>Santa Clarita</i>	Bike to Work/Bike Santa Clarita	\$591.51	\$591.51	\$346.67	\$346.67
<i>Temecula</i>	Enhancement of Santa Gertrudis Ped/Bike	\$51.81	\$51.81	\$29.65	\$29.65
<i>Tustin</i>	Newport Avenue Bike Trail	\$183.95	\$183.95	\$110.74	\$110.74
<i>Yucaipa</i>	12th Street Curb, Gutter, Sidewalk	\$28.95	\$28.95	\$17.27	\$17.27
<i>Yucaipa</i>	13th Street Curb, Gutter, Sidewalk	\$68.55	\$68.55	\$40.89	\$40.89
<i>Yucaipa</i>	12th and 13th Streets Curb, Gutter,	\$169.08	\$169.08	\$101.23	\$101.23
<i>Yucaipa</i>	6th Street Curb, Gutter, Sidewalk	\$0.09	\$0.09	\$0.05	\$0.05
(9) PM10 Reduction Strategies					
<i>Cathedral City</i>	Regional PM10 Street Sweeping Program	\$40.20	\$40.20	\$40.20	\$40.20
<i>Coachella</i>	Regional PM10 Street Sweeping Program	\$40.20	\$40.20	\$40.20	\$40.20
<i>County of Riverside</i>	Regional PM10 Street Sweeping Program	\$40.20	\$40.20	\$40.20	\$40.20
<i>Desert Hot Springs</i>	Local Street Sweeping Operations - M&M	\$6.09	\$6.09	\$6.05	\$6.05
<i>Desert Hot Springs</i>	Local Street Sweeping Operations - Clean	\$6.82	\$6.82	\$6.82	\$6.82
<i>Desert Hot Springs</i>	CVAG Regional PM10 Street Sweeping	\$40.19	\$40.19	\$40.19	\$40.19
<i>El Monte</i>	Regional PM10 Street Sweepers Contract (2)	\$11.42	\$11.42	\$11.42	\$11.42
<i>Indian Wells</i>	Regional PM10 Street Sweeping Program	\$39.87	\$39.87	\$39.87	\$39.87

Project Category	Project Name	Cost-Effectiveness (\$/lb)		Cost-Effectiveness (\$/lb)	
		*Based on		Based on	
		ROG+NOx+PM2.5		ROG+NOx+PM2.5+CO/7	
		Air Funds	ALL Funds	Air Funds	ALL Funds
(9) PM10 Reduction Strategies (cont'd)					
<i>Indio</i>	Regional PM10 Street Sweeping Program	\$40.20	\$40.20	\$40.20	\$40.20
<i>La Quinta</i>	Regional PM10 Street Sweeping Program	\$40.20	\$40.20	\$40.20	\$40.20
<i>Loma Linda</i>	City Street Sweeping Program	\$26.40	\$26.40	\$26.12	\$26.12
<i>Moreno Valley</i>	Street Sweeping Program - PM10 and	\$38.96	\$38.96	\$38.96	\$38.96
<i>Palm Desert</i>	Regional PM10 Street Sweeping Program	\$40.20	\$40.20	\$40.20	\$40.20
<i>Palm Springs</i>	CVAG Regional PM10 Street Sweeping	\$38.77	\$38.77	\$38.77	\$38.77
<i>Rancho Mirage</i>	Regional PM10 Street Sweeping Program	\$40.20	\$40.20	\$40.20	\$40.20
<i>Walnut</i>	Street Sweeping with CNG Sweeper	\$27.17	\$27.17	\$27.17	\$27.17
(11) Miscellaneous Projects					
<i>County of Riverside</i>	Purchase of Mobile Source Emission	\$8.40	\$8.40	\$8.40	\$8.40
<i>Riverside (City)</i>	ProjectDox	\$162.17	\$162.17	\$133.20	\$133.20
<i>West Covina</i>	Air Quality Investment Program (AQIP)	\$14.34	\$14.34	\$12.96	\$12.96

*Used for Statewide Comparisons.

Air Funds include MV Fees, MSRC, and Moyer dollars. All Funds also include CMAQ and other Co-funding.

Summary of Projects that Reported Cost-Effectiveness

Fiscal Year 2013 - 2014

Motor Vehicle Fees	\$13,314,094
Air Funds (MV Fees+MSRC+Moyer)	\$13,434,094
Amortized Air Funds	\$9,009,255
Emission Reductions (lbs per year) (ROG + NO _x + PM _{2.5} + CO/7)	10,926,821
Average Cost-Effectiveness (dollars per lb)	\$0.82

This report includes only projects with cost-effectiveness greater than zero.

Cost-effectiveness equals amortized Air Funds (MV Fees + MSRC + Moyer dollars) divided by ROG + NO_x + PM_{2.5} + CO/7.

[↑ Back to Agenda](#)

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 23

TITLE: Annual Report on 457 Deferred Compensation Plan

SYNOPSIS: SCAQMD sponsors an IRS-approved 457 deferred compensation program for its employees. The Annual Report addresses the Board's responsibility for monitoring the activities of the Deferred Compensation Plan Committee and ensuring the Committee carries out its fiduciary duties and responsibilities under the Committee Charter.

COMMITTEE Administrative, October 9, 2015; Recommended for Approval

RECOMMENDED ACTION:
Receive and file.

Barry R. Wallerstein, D.Env.
Executive Officer

WJJ:WR

Background

SCAQMD sponsors and administers a 457 deferred compensation program for its employees. The plan is currently administered by Massachusetts Mutual Life Insurance Company (MassMutual), a retirement services, asset management and insurance firm. State law governs the fiduciary requirement for the operation and investment of 457 plans sponsored by governmental entities. SCAQMD's Board serves a fiduciary role subject to the duties and obligations under Article XVI, Section 17 of the California Constitution.

To meet its fiduciary responsibilities, the Board, at the time it established SCAQMD's 457 Plan, also established a Deferred Compensation Plan Committee to oversee the administration of the Plan. On May 2, 2008, the Board approved the Deferred Compensation Plan Committee Charter, formalizing the fiduciary duties and responsibilities of the Committee. In addition to the retirement plan administrator, SCAQMD utilizes services of an independent, third-party consulting firm, currently

Benefit Funding Services Group (BFSG), to provide services to the Plan as a fiduciary under a Registered Investment Advisor agreement.

Summary of Report

Attached is the 457 Deferred Compensation Plan Annual Report to the Board, for FY 2014-15. During this fiscal year period, the Committee reviewed the Plan funds and made several changes to consolidate funds that no longer met the Committee's investment policy criteria. In response to recent court cases surrounding fiduciary liability, the Committee reviewed and approved changes to the Investment Policy Statement as recommended by BFSG. The Committee also approved changes to the Plan Expense Reimbursement Account Policy to accurately detail the current arrangement with MassMutual as well as increase the reserve requirement from \$7,500 to \$15,000 to account for timing issues with reimbursement payments. Finally, the Committee amended the Plan Document to allow for rollovers from the OBRA Plan, allowing regular SCAQMD employees who were once part-time employees to consolidate their funds. The attached report provides information as of June 30, 2015, regarding the Plan Assets/Demographics and Plan Performance.

Attachment

457 Deferred Compensation Plan Annual Report for FY 2014-15

SEPTEMBER 2, 2015

ANNUAL REPORT TO THE BOARD

REPORT PERIOD: JULY 2014 -
JUNE 2015



South Coast Air Quality Management District
457 Deferred Compensation Plan

Table of Contents

Section I	Executive Summary
Section II	Year in Review
Section III	Plan Assets / Demographics
Section IV	Plan Performance
Section V	Appendix
	<ul style="list-style-type: none">• Meeting Minutes

SECTION I

EXECUTIVE SUMMARY

Executive Summary

South Coast Air Quality Management District ("SCAQMD") sponsors and administers an eligible deferred compensation program for its employees, as covered under section 457 of the Federal Internal Revenue Code. SCAQMD's Deferred Compensation Plan ("Plan") was adopted on January 1, 1987. Employees are immediately eligible upon hire to participate in the Plan.

SCAQMD's Deferred Compensation Plan Committee ("Committee"), officially chartered in May 2008, and whose members are appointed by SCAQMD's Governing Board, meets on a regular basis to review the Plan's design, investment options, asset allocation/demographics, and to make changes as necessary. Current membership includes the Chief Financial Officer, General Counsel, the Assistant Deputy Executive Officer of Administration and Human Resources, and a Human Resources Manager.

The Plan is administered by Massachusetts Mutual Life Insurance Company ("Mass Mutual"), a retirement services, asset management and insurance firm. MassMutual took over administration after purchasing the retirement plan business of Hartford Life Insurance Company ("Hartford"). MassMutual has informed the Committee of its intent to honor the terms of the agreement entered into with Hartford by the Committee effective November 17, 2011. MassMutual has been administering 457 Plans since 1979, has \$12 billion in 457 assets under management and an S&P credit rating of AA-.

In addition to the retirement plan administrator, SCAQMD utilizes the services of Benefit Funding Services Group ("BFSG"). BFSG is an independent, third-party consulting firm that provides services to the Plan as a fiduciary under a Registered Investment Advisor agreement. Their consulting services include investment analysis, review and recommendation of investment options offered in the Plan, fiduciary compliance assistance to Committee members and annual Plan cost benchmarking. BFSG has been providing services to the Plan since 2007.

The Plan was established to provide a retirement savings program for the employees of SCAQMD and is maintained for the exclusive purpose of benefiting the Plan participants and their beneficiaries. The Plan also is intended to operate in accordance with all applicable state and federal laws and regulations.

While Plan participants are ultimately responsible for their own investment decisions, the Committee endeavors to provide an appropriate range of investment options, allowing participants to invest in accordance with their own time horizons, risk tolerance, and retirement goals.

SECTION II

YEAR IN REVIEW

2014/2015 Year in Review

Items addressed and adopted by the Committee during the year are as follows:

Investment Menu

Date	Item	Update
October 22, 2014 (Interim Meeting)	Fund Change	The Committee called an interim meeting due to the unexpected departure of Bill Gross from PIMCO. The Committee agreed to replace PIMCO Total Return with Metropolitan West Total Return Bond. The fund change occurred on January 2, 2015.
March 4, 2015	Watch List	The Committee placed Artisan Mid Cap Value on the Watch List due to short-term underperformance

SECTION III

PLAN ASSETS /
DEMOGRAPHICS

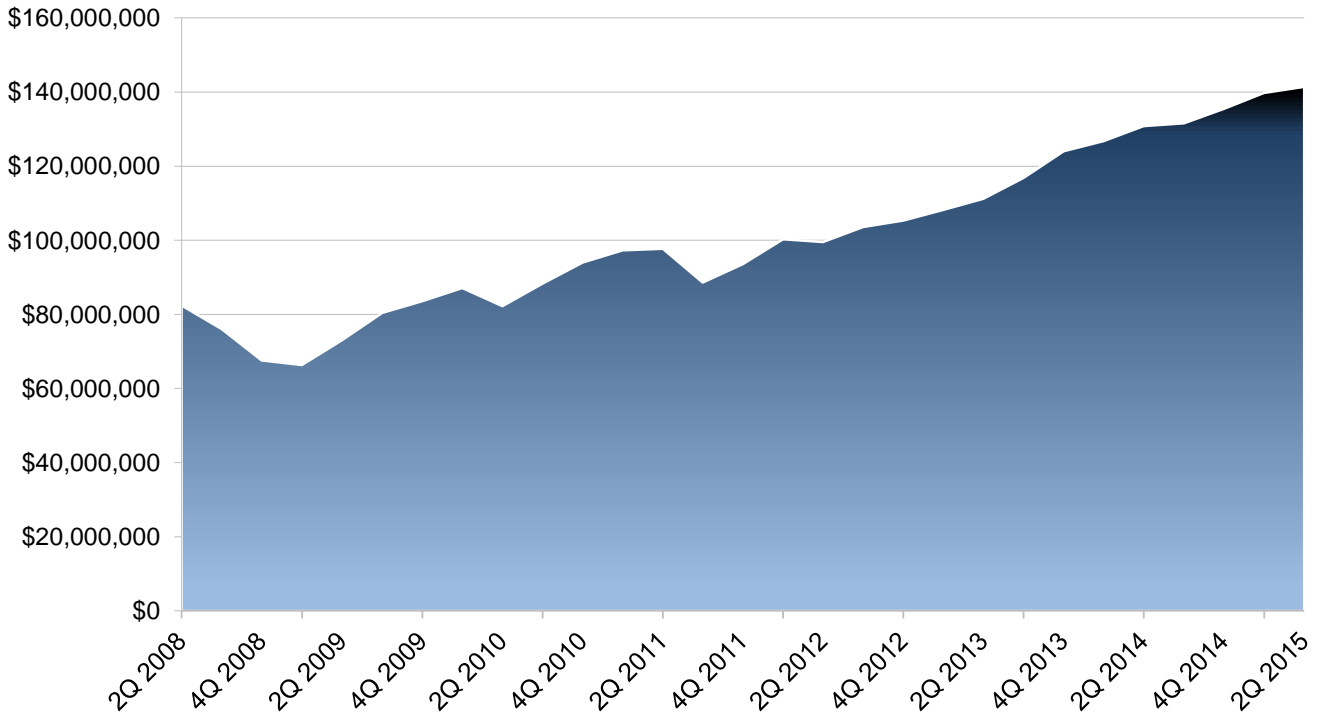
Plan Assets / Demographics as of June 30, 2015

Investment Option	% of Assets	Participants	Plan Assets
Hartford General Account	45.77%	601	\$64,736,263
Hartford Capital Appreciation HLS IA	10.48%	292	\$14,824,158
T. Rowe Price Blue Chip Growth	9.17%	329	\$12,972,025
Hartford MidCap HLS IA	3.89%	255	\$5,497,472
Hartford Dividend and Growth HLS IA	3.52%	253	\$4,981,256
SSgA S&P 500 Index Sec Lend Inv Opt	3.36%	151	\$4,749,554
Invesco Equity and Income A	3.25%	158	\$4,592,204
Hartford International Opp HLS IA	3.14%	293	\$4,439,050
Hartford Healthcare HLS IA	2.75%	113	\$3,883,602
Hartford Small Company HLS IA	2.19%	211	\$3,104,032
Metropolitan West Total Return Bond I	2.16%	203	\$3,051,759
MFS® Utilities A	2.06%	122	\$2,908,838
AllianzGI NFJ Small-Cap Value Admin	1.15%	180	\$1,624,936
SSgA Dow Jones Target 2045(SM) Sec Lend Inv Opt	1.12%	58	\$1,582,633
SSgA US Interm Gov/Credit Bond Index SL Inv Opt	1.00%	100	\$1,413,693
Artisan Mid Cap Value Investor	0.86%	155	\$1,217,687
MFS® International New Discovery A	0.84%	103	\$1,186,525
SSgA Dow Jones Target 2035(SM) Sec Lend Inv Opt	0.75%	31	\$1,066,808
SSgA S&P MidCap Index Non-Lend Series Inv Opt	0.73%	87	\$1,036,890
Invesco Real Estate R5	0.63%	53	\$890,187
SSgA Russell Small Cap Index Sec Lend Inv Opt	0.44%	69	\$619,316
SSgA International Index Sec Lend Series Inv Opt	0.30%	34	\$421,170
SSgA Dow Jones Target 2025(SM) Sec Lend Inv Opt	0.22%	14	\$310,581
Neuberger Berman Socially Rspns Tr	0.16%	32	\$232,802
SSgA Dow Jones Target 2015(SM) Sec Lend Inv Opt	0.06%	5	\$86,667
American Century Capital Presv Investor	0.01%	4	\$12,185
SSgA Dow Jones Target Today	0.00%	2	\$4,398
Total	100.00%	827	\$141,446,690

Note: Does not include Self-Directed Brokerage Account

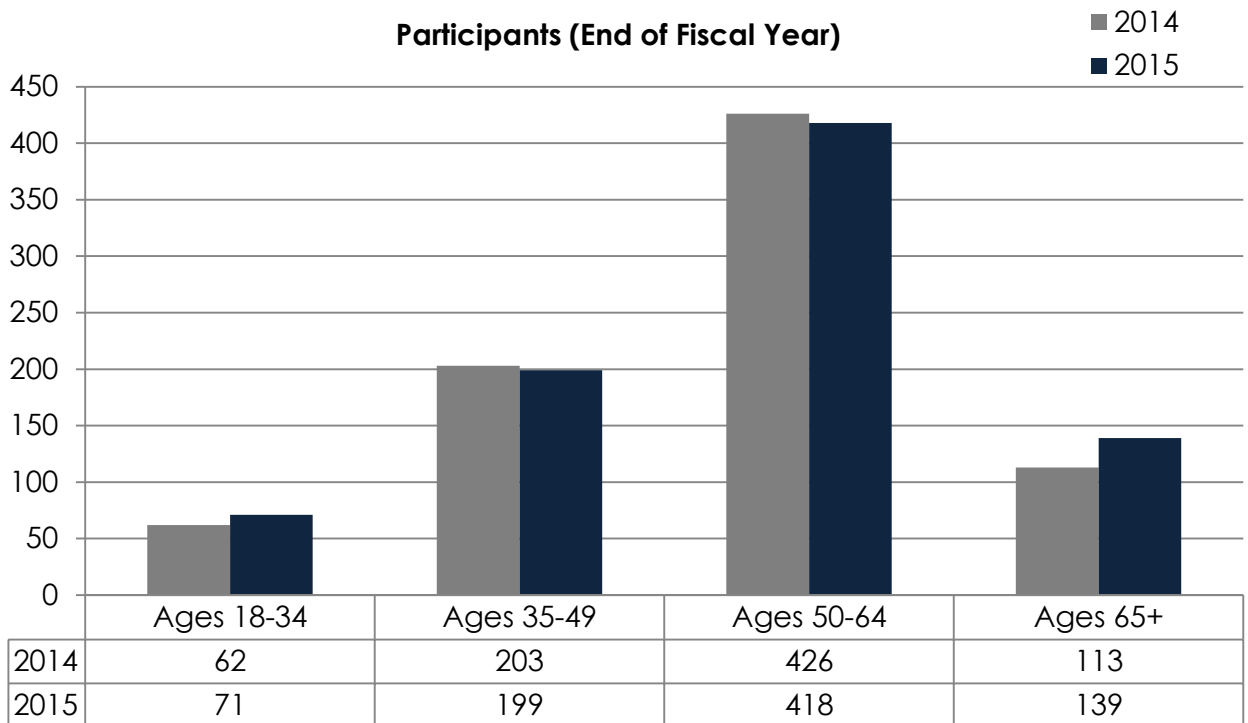
Plan Assets / Demographics

Growth of Plan Assets



Plan Participants by Age

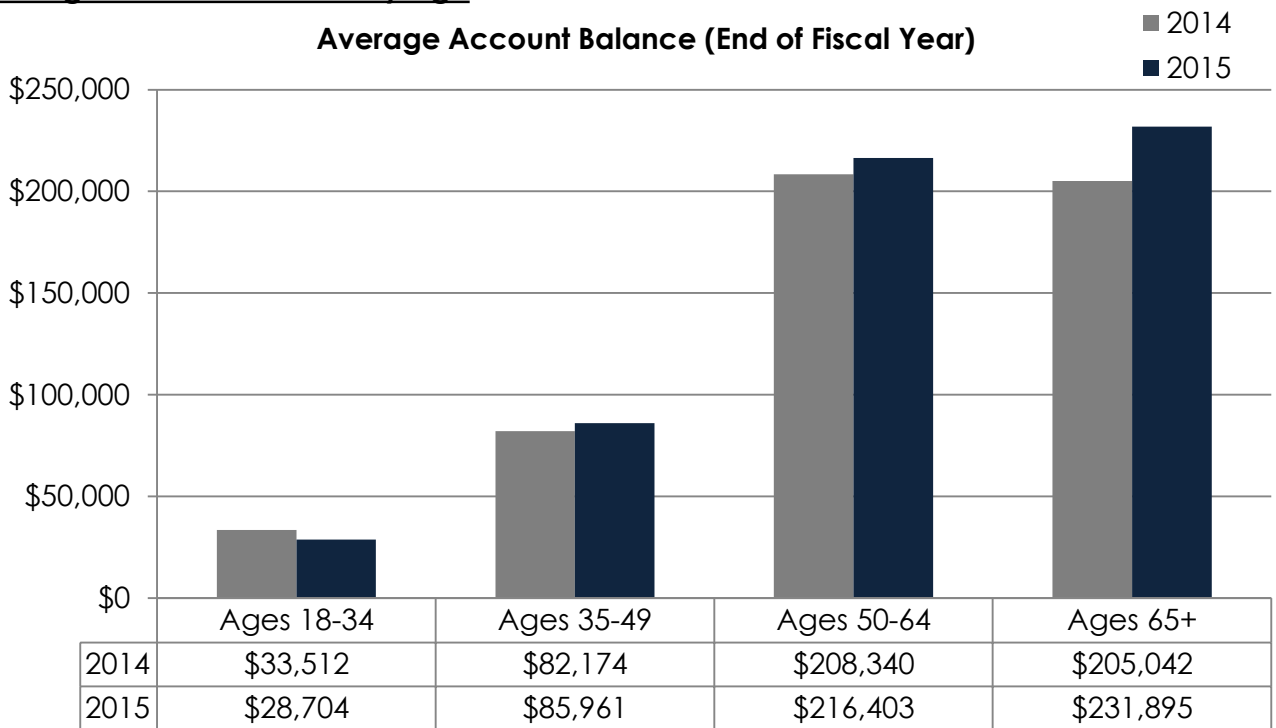
Participants (End of Fiscal Year)



Plan Assets / Demographics

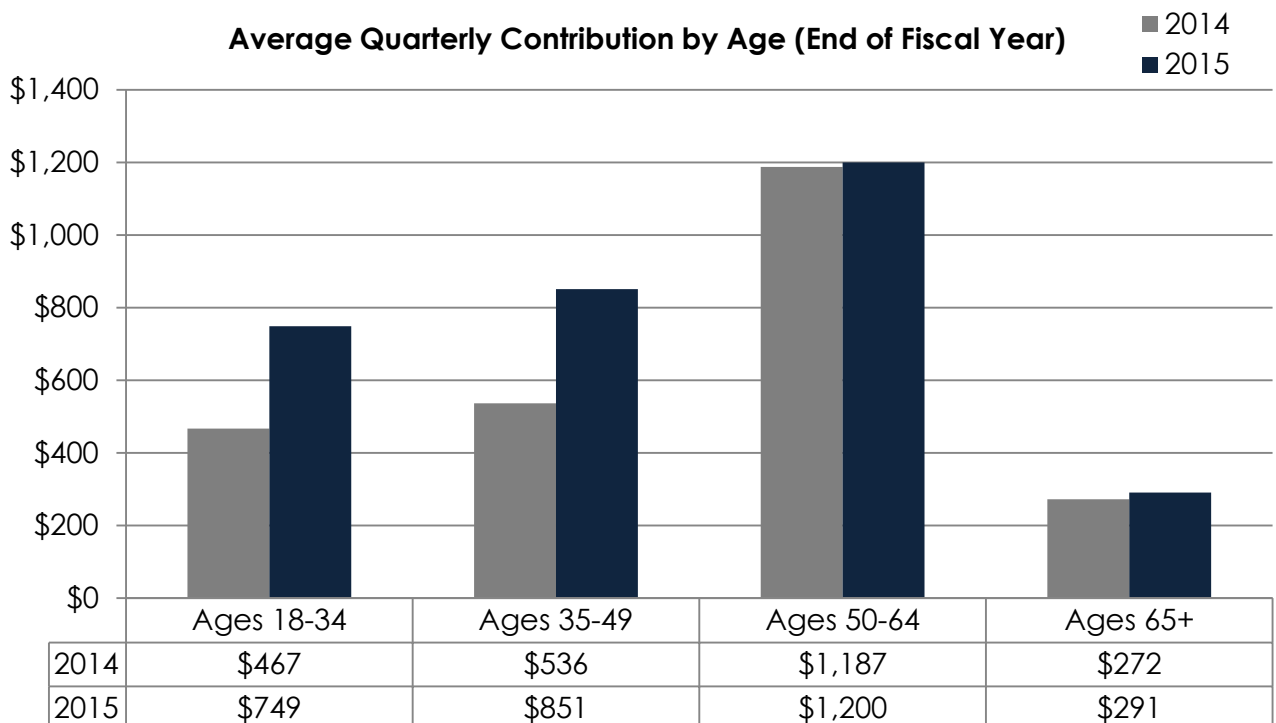
Average Account Balance by Age

Average Account Balance (End of Fiscal Year)



Average Contributions by Age

Average Quarterly Contribution by Age (End of Fiscal Year)



Plan Assets / Demographics

Annual Net Cash Flow –YTD 2015

QUARTER ENDING	2015				YTD
	March 31st	June 30th	September 30th	December 31st	Jan 1st - Dec 31st
Cash Flow					
Beginning Market Value	\$135,494,973	\$139,760,890			\$135,494,973
Employee Deferrals	\$1,843,647	\$2,362,968			\$4,206,615
Withdrawals	-\$1,002,878	-\$1,443,372			-\$2,446,250
Net Loan Activity	\$11,164	\$176,704			\$187,868
Fees	-\$1,577	-\$1,364			-\$2,941
TOTAL DISBURSEMENTS	-\$993,291	-\$1,268,032			-\$2,261,322
NET CASH FLOW	\$850,356	\$1,094,936			\$1,945,292
Change in Value	\$3,415,560	\$934,073			\$4,349,634
Net Transfers	\$0	\$0			\$0
Ending Market Value	\$139,760,890	\$141,789,899			\$141,789,899

Annual Net Cash Flow - 2014

QUARTER ENDING	2014				YTD
	March 31st	June 30th	September 30th	December 31st	Jan 1st - Dec 31st
Cash Flow					
Beginning Market Value	\$124,067,692	\$126,785,580	\$130,882,473	\$131,610,309	\$124,067,692
Employee Deferrals	\$1,596,665	\$1,803,120	\$1,501,179	\$1,418,170	\$6,319,135
Withdrawals	-\$469,858	-\$1,350,698	-\$426,247	-\$476,739	-\$2,723,542
Net Loan Activity	-\$44,098	-\$61,293	\$53,137	-\$77,058	-\$129,312
Fees	-\$1,577	-\$1,746	-\$1,602	-\$1,677	-\$6,601
TOTAL DISBURSEMENTS	-\$515,533	-\$1,413,737	-\$374,712	-\$555,473	-\$2,859,455
NET CASH FLOW	\$1,081,132	\$389,384	\$1,126,467	\$862,697	\$3,459,681
Change in Value	\$1,636,756	\$3,755,863	-\$398,631	\$3,021,967	\$8,015,955
Net Transfers	\$0	-\$48,354	\$0	\$0	-\$48,354
Ending Market Value	\$126,785,580	\$130,882,473	\$131,610,309	\$135,494,973	\$135,494,973

SECTION IV

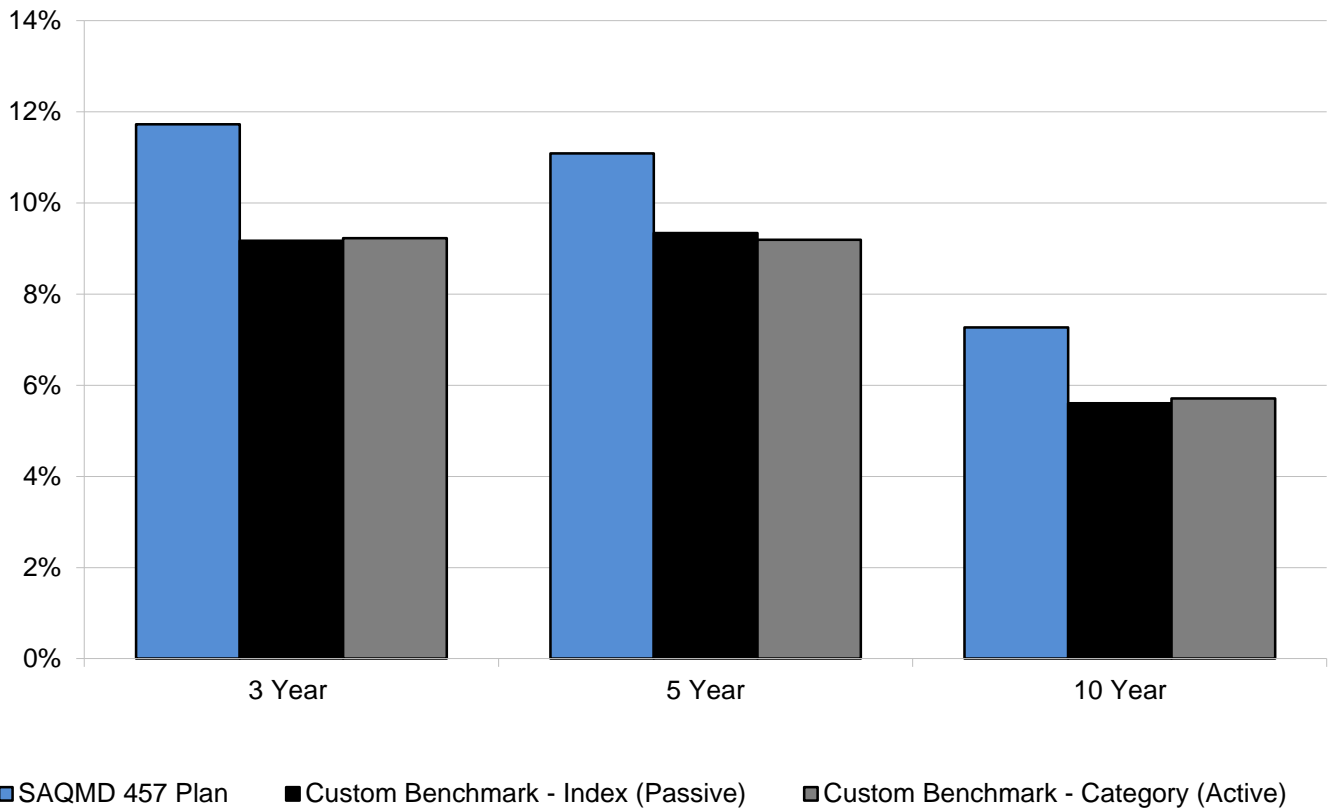
PLAN PERFORMANCE

Weighted Portfolio Return versus Custom Benchmark

Performance as of June 30, 2015	3 Month	1 Year	Annualized Returns			3 YR Std Dev	3 YR Sharpe	Expense Ratio
			3 Year	5 Year	10 Year			
SAQMD 457 Plan	0.71%	5.85%	11.73%	11.09%	7.27%	4.74	2.36	0.72
Custom Benchmark - Index (Passive)	0.07%	4.27%	9.17%	9.34%	5.60%	N/A	N/A	N/A
Custom Benchmark - Category (Active)	0.26%	4.16%	9.23%	9.19%	5.71%	4.35	2.05	0.89

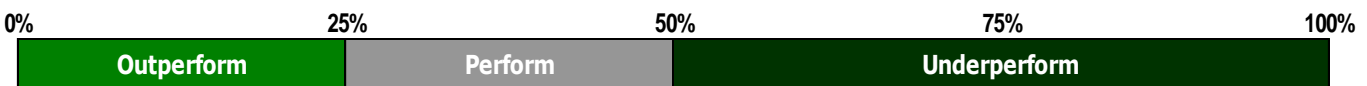
*Custom expense ratio represents the weighted expense (based upon current allocation) of Institutional and Retirement share classes in each asset category.

Annualized Returns



Individual Fund Ranking (Per Investment Policy Statement Evaluation Criteria)

Investment Name	Quarterly Ranking			
	2Q15	1Q15	4Q14	3Q14
Intermediate-Term Bond Metropolitan West Total Return Bond I	0	0	0	0
Moderate Allocation Invesco Equity and Income A	20	27	15	13
Large Value Hartford Dividend & Growth HLS IA	3	3	3	4
Large Blend Hartford Capital Appreciation HLS IA	25	33	32	25
Large Growth Neuberger Berman Socially Rspns Tr T. Rowe Price Blue Chip Growth	63 1	53 1	53 2	55 1
Mid Value Artisan Mid Cap Value Investor	72	68	63	54
Mid Growth Hartford MidCap HLS IA	7	4	2	1
Small Value AllianzGI NFJ Small Cap Value Admin	42	36	34	25
Small Growth Hartford Small Company HLS IA	18	11	8	9
Foreign Large Equity Hartford International Opp HLS IA	2	6	4	5
Foreign Small/Mid Equity MFS® International New Discovery A	41	41	27	34
Healthcare Hartford Global Health HLS IA	16	19	17	20
Real Estate Invesco Real Estate R5	33	35	32	22
Utilities MFS Utilities A	24	34	35	22
Average Rank	24	25	23	20
Plan Weighted Rank (Reweighted)	15	17	17	13



SECTION V

APPENDIX

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

September 3, 2014

Members Present: Mr. Bill Johnson – Asst. Deputy Executive Officer/Admin and Human Resources
Mr. Bill Richards – Human Resources Manager
Mr. Michael O’Kelly – Chief Financial Officer
Mr. Kurt Wiese – General Counsel

Committee Consultants: Mr. John Campbell – Benefit Funding Services Group (BFSG)
Mr. Darren Stewart – BFSG
Mr. Robert Trenergy - MassMutual

Call to Order: The regular meeting of the Deferred Compensation Plan Committee was called to order by Mr. Johnson on September 3, 2014 at 2:05 pm in Conference Room CC-3. It was noted a quorum was present.

1. Approval of Prior Meeting Minutes

The minutes from the meeting held on July 21, 2014 were reviewed, revised, and unanimously approved by the Committee.

Investment Agenda

2. 457 Plan Quarterly Investment Review – 2nd Quarter 2014

The Committee received and filed the 457 Plan Quarterly Investment Review dated June 30, 2014 as prepared by BFSG. Mr. Campbell provided a brief economic and market overview outlining economic growth as measured by GDP, inflation, unemployment, interest rates and market sector returns during the 1st quarter of 2014. The Committee reviewed the performance of each investment option in the Plan relative to its respective benchmark during the quarter and annualized over a 1, 3, 5 and 10 year basis. Mr. Stewart provided the following qualitative information on the funds requiring discussion:

American Century Capital Preservation: The SEC recently issued regulations affecting prime money market funds. It is unclear if the regulations will apply to retirement plans, but potential implications include redemption fees and restricted withdrawals during times of financial stress. The regulations will go into effect January 1, 2016. BFSG will provide updates to the Committee as details are released.

Artisan Mid Cap Value: The fund has underperformed in the short- and intermediate-term. A large cash position has detracted from performance during the market rally. The fund typically underperforms during up-markets and outperforms during down-markets. Risk-adjusted performance across all measured time periods remains strong relative to its peer group. Long-term performance remains in the top 4% of its peer group.

SSGA Dow Jones Target Date Funds: The funds have underperformed over most measured time periods due to a very conservative glidepath and a significant underweight to equities. The funds attempt to track the Dow Jones Target Date Index. The funds have historically underperformed during market rallies but protected investors during market downturns.

As weighted on June 30, 2014, the Plan outperformed passive and active benchmarks across all measured time periods. The Plan-weighted expense ratio is 73 bps which is below the custom category average of 90 bps.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

Administrative Agenda

3. Quarterly Plan Review

The Committee received and filed the MassMutual Retirement Plan Review dated June 30, 2014. Mr. Trenerry review plan statistics and demographics. Assets increased approximately \$4 million for the quarter to \$130.9 million. The average account balance increased to \$162,856, but the average loan balance remains much higher than in other MassMutual plans at \$15,359. The high average loan balance is likely due to the high average account balance. Nearly 24% of participants are invested in a single investment option, but 54 participants are utilizing the asset allocation models.

4. Annual Report to the Governing Board

The Committee received and reviewed the Annual Report to the Governing Board created by BFGS. The purpose of the Annual Report is to assist the Governing Board in fulfilling its responsibility to monitor the Committee, to which it has delegated fiduciary responsibility. The Committee made several edits to the presentation. Mr. Stewart will make the changes and send an electronic copy to Mr. Johnson.

5. Public Comments

Mr. Johnson asked the attending members of the Public for comment but received no reply.

Adjournment

With no further items to address, Mr. Johnson adjourned the meeting at 3:30 pm.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

October 22, 2014

Members Present: Mr. Bill Johnson – Asst. Deputy Executive Officer/Admin and Human Resources
Mr. Bill Richards – Human Resources Manager
Mr. Michael O’Kelly – Chief Financial Officer
Mr. Kurt Wiese – General Counsel

Committee Consultants: Mr. John Campbell – Benefit Funding Services Group (BFSG)
Mr. Darren Stewart – BFSG
Mr. Darryl Shafer - MassMutual

Call to Order: The special meeting of the Deferred Compensation Plan Committee was called to order by Mr. Johnson on October 22, 2014 at 2:00 pm in Conference Room CC-7. It was noted a quorum was present.

Investment Agenda

1. PIMCO Total Return Fund Search

The Plan currently offers PIMCO Total Return as its only intermediate bond investment option and the fund is also held in the Asset Allocation Models. Founder and President of PIMCO Bill Gross recently announced his immediate resignation. This follows the resignation of CEO Mohamed El-Erian earlier this year. A team of managers has taken over for Gross in managing PIMCO Total Return. The announcement has led to significant cash outflows which may lead to organizational and fund management issues. As a result, the Committee unanimously voted to remove PIMCO Total Return from the Plan and replace it with Metropolitan West Total Return Bond. The fund was chosen for its strong historical performance in up- and down-markets, strong risk-adjusted performance, and low expenses. This change will also affect the allocations in the Asset Allocation Models.

2. Public Comments

Mr. Johnson asked the attending members of the Public for comment but received no reply.

Adjournment

With no further items to address, Mr. Johnson adjourned the meeting at 2:35 pm.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

December 10, 2014

Members Present: Mr. Bill Johnson – Asst. Deputy Executive Officer/Admin and Human Resources
Mr. Bill Richards – Human Resources Manager
Mr. Michael O’Kelly – Chief Financial Officer

Members Absent: Mr. Kurt Wiese – General Counsel

Committee Consultants: Mr. John Campbell – Benefit Funding Services Group (BFSG)
Ms. Aksana Munoz – BFSG
Mr. Robert Trenerry - MassMutual

Call to Order: The regular meeting of the Deferred Compensation Plan Committee was called to order by Mr. Johnson on December 10, 2014 at 2:10 pm in Conference Room CC-7. It was noted a quorum was present.

1. Approval of Prior Meeting Minutes

The minutes from the meetings held on September 3 and October 22, 2014 were reviewed and unanimously approved by the Committee members in attendance.

Investment Agenda

2. 457 Plan Quarterly Investment Review – 3rd Quarter 2014

The Committee received and filed the 457 Plan Quarterly Investment Review dated June 30, 2014 as prepared by BFSG. Mr. Campbell provided a brief economic and market overview outlining economic growth as measured by GDP, inflation, unemployment, interest rates and market sector returns during the 3rd quarter of 2014. The Committee reviewed the performance of each investment option in the Plan relative to its respective benchmark during the quarter and annualized over a 1, 3, 5 and 10 year basis. Mr. Campbell provided the following qualitative information on the funds requiring discussion:

PIMCO Total Return: The fund is scheduled to be removed from the Plan on January 2, 2015. All assets and future contributions will be mapped to Metropolitan West Total Return Bond. Metropolitan West Total Return Bond will replace PIMCO Total Return in the Asset Allocation Models.

Invesco Equity and Income: The fund outperformed its benchmark and peers across all measured time periods. It was noted that fund was recently re-categorized by Morningstar to Moderate Allocation. The fund is currently allocated with approximately 65% to equity and 35% to fixed income. The fixed income portion is invested heavily in high quality securities and cash.

Neuberger Berman Socially Responsive: As of the end of the reporting period, the fund underperformed its passive and active benchmark across all measured time periods largely due to an overweight to energy. Management avoids stocks that get significant revenue from alcohol, tobacco, nuclear power, or gambling, and favors those with good community and environmental records. As the fund is following its philosophy, there was no concern raised at this time.

Artisan Mid Cap Value: The fund underperformed in the short- and intermediate-term largely due to an overweight position to energy and consumer discretionary. The fund typically underperforms during up-markets and performs well during down-markets. Long-term performance remains strong.

SSGA Dow Jones Target Date Funds: The funds have underperformed over most measured time periods due to a very conservative glide path and a significant underweight to equities. The funds seek an investment return that approximates as closely as practicable the performance of the applicable Dow Jones Target Date Index. The funds have historically underperformed during market rallies but protected investors during market downturns.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

The Committee reviewed the performance of the Asset Allocation Models noting each model has exceeded its custom benchmark across all measured time periods as of September 30, 2014. Model net expense ratios range from 67 basis points to 78 basis points, well below the custom peer group averages.

As weighted on September 30, 2014, the Plan outperformed passive and active benchmarks across all measured time periods. The Plan-weighted expense ratio is 73 bps which is below the custom category average of 91 bps.

Administrative Agenda

3. Quarterly Plan Review

The Committee received and filed the MassMutual Retirement Plan Review dated September 30, 2014. Mr. Trenerry reviewed Plan statistics which included demographics, asset allocation by category, participation by age group, asset allocation modes participation, and contributions. Net cash flow was approximately \$313,000 and assets increased to over \$131 million. The average account balance remains very high at approximately \$162,000. It was also noted that the participation in the Asset Allocation Models increased 4% during the quarter.

4. Discussion Regarding Retirement Fees

Due to absence of Mr. Kurt Wiese, this topic was tabled to the next meeting.

5. Calendar Year 2015 Meeting Dates

The Committee presented the 2015 schedule for the Deferred Compensation Plan Committee. Meetings will be held at 2:00 on March 4th, June 10th, September 2nd, and December 2nd in Conference Room CC-3/5. BFSG will work with the Committee to coordinate these dates.

6. Public Comments

Mr. Johnson asked the attending members of the Public for comment but received no reply.

Adjournment

With no further items to address, Mr. Johnson adjourned the meeting at 3:54 pm.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

March 4, 2015

Members Present: Mr. Bill Johnson – Asst. Deputy Executive Officer/Admin and Human Resources
Mr. Bill Richards – Human Resources Manager
Mr. Kurt Wiese – General Counsel

Members Absent: Mr. Michael O’Kelly – Chief Financial Officer

Committee Consultants: Mr. John Campbell – Benefit Funding Services Group (BFSG)
Mr. Darren Stewart - BFSG
Ms. Aksana Munoz – BFSG
Mr. Robert Trenergy - MassMutual

Call to Order: The regular meeting of the Deferred Compensation Plan Committee was called to order by Mr. Johnson on March 4, 2015 at 2:00 pm in Conference Room CC-5. It was noted a quorum was present.

1. Approval of Prior Meeting Minutes

The minutes from the meeting held on December 10, 2014 were reviewed and unanimously approved by the Committee members in attendance.

Investment Agenda

2. 457 Plan Quarterly Investment Review – 4th Quarter 2014

The Committee received and filed the 457 Plan Quarterly Investment Review (“Report”) dated December 31, 2014 as prepared by BFSG. Mr. Campbell provided a brief economic and market overview outlining economic growth as measured by GDP, inflation, unemployment, interest rates and market sector returns during the 4th quarter of 2014. The Committee reviewed the performance of each investment option in the Plan relative to its respective benchmark during the quarter and annualized over a 1-, 3-, 5- and 10-year basis. Mr. Campbell provided the following qualitative information on the funds requiring discussion:

Hartford Capital Appreciation underperformed its benchmark index and peers for the quarter and on a 1- and 5-year basis largely due its high position in foreign equities. The fund’s overweight to healthcare added to performance. Long-term performance remains strong.

Artisan Mid Cap Value: The fund significantly underperformed in the short and intermediate term due to an overweight to energy. The fund tends to underperform during up markets and perform well during down markets. Long-term performance ranks in the top 13% amongst its peers. After discussion, the Committee agreed to place the fund on the Watch List due to significant underperformance.

AllianzGI NFJ Small-Cap Value underperformed its benchmark and active category for the quarter and on a 1-, 3-, and 5-year basis largely due to an overweight to materials and energy. Management invests heavily in stocks paying dividends. The fund historically performs better than its peers during down markets, but underperforms during market rallies. Risk-adjusted performance, as measured by the Sharpe Ratio, remains strong. Long-term performance ranks in the top 8% amongst its peers.

The Asset Allocation Models performance was also reviewed, and noted as predominantly outperforming their custom benchmarks with lower expense ratios than the benchmarks.

As weighted on December 31, 2014, the Plan outperformed its peers across all measured time periods noted in the Report, but underperformed its passive benchmark for the quarter on a one-year basis. The Plan-weighted expense ratio is 73 bps which is below the custom category average of 90 bps.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

Administrative Agenda

3. Quarterly Plan Review

The Committee received and filed the MassMutual Retirement Plan Review dated December 31, 2014. Mr. Trenerry reviewed Plan statistics which included the Plan's cash flow, rollover contributions, withdrawals, loans, demographics, and participation statistics. Mr. Trenerry proposed a communication campaign with a goal of increasing enrollment and participation in the Plan and in the Asset Allocation Models. Mass Mutual will work with Mr. Richards on the details of this communication campaign.

4. Discussion Regarding Retirement Fees

In the interest of time, this topic was tabled to the next meeting.

5. Other Business

The Committee discussed benefits of potentially adding a 401 (a) Plan to utilize for the employer's match. Mass Mutual will work on a fee proposal to recordkeep the Plan and will provide it to the Committee at the next meeting.

6. Public Comments

Mr. Johnson asked the attending members of the Public for comment but received no reply.

Adjournment

With no further items to address, Mr. Johnson adjourned the meeting at 3:40 pm.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

June 10, 2015

Members Present: Mr. Bill Johnson – Asst. Deputy Executive Officer/Admin and Human Resources
Mr. Michael O’Kelly – Chief Financial Officer
Mr. Bill Richards – Human Resources Manager
Mr. Kurt Wiese – General Counsel

Committee Consultants: Mr. Darren Stewart – Benefit Funding Services Group (“BFSG”)
Ms. Aksana Munoz – BFSG
Mr. Robert Trenergy - MassMutual

Call to Order: The regular meeting of the Deferred Compensation Plan Committee was called to order by Mr. Johnson on June 10, 2015 at 2:00 pm in Conference Room CC-5. It was noted a quorum was present.

1. Approval of Prior Meeting Minutes

The minutes from the meeting held on March 4, 2015 were reviewed and unanimously approved by the Committee as written.

Investment Agenda

2. 457 Plan Quarterly Investment Review – 1st Quarter 2015

The Committee received and filed the 457 Plan Quarterly Investment Review (“Report”) dated March 31, 2015 as prepared by BFSG. Mr. Stewart provided a brief economic and market overview outlining economic growth as measured by GDP, inflation, unemployment, interest rates, and market sector returns during the 1st quarter of 2015. The Committee reviewed the performance of each investment option in the Plan relative to its respective benchmark during the quarter and annualized over a one-, 3-, 5- and 10-year basis. Mr. Stewart provided the following qualitative information on the funds requiring discussion:

American Century Capital Preservation: The Committee discussed pros and cons of having the money market fund in the Plan alongside the Hartford General Account. The Committee agreed to add a potential removal of the fund and the asset class to the next agenda.

Invesco Equity & Income: The fund underperformed its passive and active benchmarks for the quarter and on a one-year period. An overweight in financials detracted from performance for the quarter while an underweight in foreign equities contributed to performance on a 3-year basis. The fund has outperformed its peers on a 3-, 5-, and 10-year basis.

Artisan Mid Cap Value, which is currently on the Watch List, slightly underperformed its passive benchmark and peers for the quarter. The fund significantly underperformed both benchmarks on a 3- and 5-year basis but outperformed its peers on a 10-year basis. An overweight in energy and industrials and an underweight in healthcare contributed to the recent underperformance. After discussion, the Committee unanimously agreed to keep the fund on the Watch List due to its relative underperformance. If the fund’s performance does not improve in the next quarter, BFSG will prepare an analysis of available alternatives in the mid-cap value category for review at the next Committee meeting.

AllianzGI NFJ Small-Cap Value: The fund underperformed its passive benchmark and active benchmark on a one-, 3-, and 5-year basis but outperformed both benchmarks for the quarter. Strong stock selection contributed to performance while an overweight in energy and materials detracted from performance. Long-term performance is in the top quartile amongst its peers.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
DEFERRED COMPENSATION PLAN COMMITTEE
MEETING MINUTES

The Committee reviewed the performance of the Asset Allocation Models noting each model has exceeded its custom benchmark across all measured time periods as of March 31, 2015. Model net expense ratios range from 66 basis points to 77 basis points, well below the custom benchmarks.

As weighted on March 31, 2015, the Plan outperformed its peers across all measured time periods noted in the Report. The Plan-weighted expense ratio is 72 bps which is below the custom category average of 90 bps.

Asset Allocation: Assets in the Plan totaled \$139.4 million as of the end of the reporting period representing 810 participant accounts with a balance.

Administrative Agenda

3. Quarterly Plan Review

The Committee reviewed the MassMutual Retirement Plan Review for the period ending March 31, 2015. The average participant loan balance increased by 7% while account balances for participants under age 50 increased by 4% during the quarter. As of March 31, 2015, 57 participants utilize the asset allocation models. The Committee also reviewed the Plan's cash flow, contributions, withdrawals, and participation statistics.

4. 401(a) Plan Proposal

The topic was tabled to a future meeting.

5. Discussion Regarding Retirement Fees

The Committee discussed recent industry-related headline news regarding retirement fees, including the Tibble v. Edison Court ruling.

6. Other Business

Hartford Contract Extension Proposal: It was noted that the current Contract with Hartford is set to expire in November 2016. As such, Mr. Trenerry was asked to provide a new contract proposal for the Committee's review and discussion at the next meeting.

Committee Charter: It was noted that an updated Committee Charter shall be presented for review at a future meeting.

7. Public Comments

Mr. Johnson asked the attending members of the Public for comment but received no reply.

Adjournment

With no further items to address, Mr. Johnson adjourned the meeting at 3:55 pm.

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 24

PROPOSAL: Report of RFQs Scheduled for Release in November

SYNOPSIS: This report summarizes the RFQs for budgeted services over \$75,000 scheduled to be released for advertisement for the month of November.

COMMITTEE: Administrative, October 9, 2015; Recommended for Approval

RECOMMENDED ACTION:

Approve the release of RFQs for the month of November.

Barry R. Wallerstein, D.Env.
Executive Officer

MBO:lg

Background

At its January 8, 2010 meeting, the Board approved a revised Procurement Policy and Procedure. Under the revised policy, RFQs for budgeted items over \$75,000, which follow the Procurement Policy and Procedure, no longer require individual Board approval. However, a monthly report of all RFQs over \$75,000 is included as part of the Board agenda package and the Board may, if desired, take individual action on any item. The report provides the title and synopsis of the RFQ, the budgeted funds available, and the name of the Deputy Executive Officer/Asst. Deputy Executive Officer responsible for that item. Further detail including closing dates, contact information, and detailed proposal criteria will be available online at <http://www.aqmd.gov/grants-bids> following Board approval on November 6, 2015.

Outreach

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

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

Proposal Evaluation

Proposals received will be evaluated by applicable diverse panels of technically-qualified individuals familiar with the subject matter of the project or equipment and may include outside public sector or academic community expertise.

Attachment

Report of RFQs Scheduled for Release in November 2015

**November 6, 2015 Board Meeting
Report on RFQs Scheduled for Release on November 6, 2015**

(For detailed information visit SCAQMD's website at
<http://www.aqmd.gov/rfp/index.html> following Board approval on November 6, 2015)

STANDARDIZED SERVICES

REQUESTS FOR QUALIFICATIONS AND QUOTATIONS - Prequalified Vendor List

RFQQ #Q2016-02	Issue Request for Qualifications and Quotations to Prequalify Vendors for Computer, Network, Printer, Hardware and Software	MARLIA/3148
	<p>On February 7, 2014, the Board approved a vendor list for the purchase of personal computer hardware, software, and installation services for a period of two years. The current vendor list expires on February 7, 2016. SCAQMD operational efficiency is dependent on staff's desktop computer systems, and many software applications (both off-the-shelf and in-house developed applications) are exceeding the capacity of the present desktop systems. New desktop computer systems, with adequate capacity to support current software applications, are needed to replace older desktop systems. These replacements are in accord with SCAQMD's Information Management Strategic Plan. This action is to issue a Request for Qualifications and Quotations to competitively develop a new list of vendors for computer, network and printer; hardware and software for a two-year term. Funds for these purchases (\$300,000) made under this prequalified vendor list are included in the FY 2015-16 Budget and will be requested in the following FY as well.</p>	

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 25

PROPOSAL: Status Report on Major Projects for Information Management
Scheduled to Start During First Six Months of FY 2015-16

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 projects to be initiated by Information Management during the first six months of FY 2015-16.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Barry R. Wallerstein, D.Env.
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 expected to come before the Board between July 1 and December 31, 2015. Information provided for each project includes a brief project description, FY 2015-16 Budget, and the schedule associated with known major milestones (issue RFP/RFQ, execute contract, etc.).

Attachment

Information Management Major Projects for Period July 1 through December 31, 2015

ATTACHMENT
November 6, 2015 Board Meeting
Information Management Major Projects
for the Period of July 1 through December 31, 2015

Item	Brief Description	Budgeted Funds	Schedule of Board Actions	Status
OnBase Software Support	Authorize the sole source purchase of OnBase software subscription and support for one year.	\$122,980	Approve Sole Source Purchase July 10, 2015	Completed
Oracle PeopleSoft Software Support	Purchase of Oracle PeopleSoft software support and maintenance for the integrated Finance/HR system.	\$328,800	Approve Purchase July 10, 2015	Completed
Hearing Board and GB Rooms Audio Visual System Upgrades	Select vendor to upgrade the audiovisual systems in the Hearing Board and GB rooms at the Diamond Bar headquarters.	\$401,000	Release RFP April 3, 2015; Award Contract September 4, 2015	Completed
Systems Development, Maintenance, and Support	Provide Development, Maintenance and support for: <ul style="list-style-type: none"> • Web Application Development • e-Commerce Implementation • CLASS System Replacement • CLASS System Enhancements • Version Upgrades 	\$345,000	October 2, 2015	Completed
Website Evaluation and Improvement Contract	Award contract to Xivic, Inc. to evaluate SCAQMD's current website, make recommendations and implement those improvements.	TBD	November 6, 2015	On Schedule
Prequalify Vendor List for PCs, Network Hardware, etc.	Establish list of prequalified vendors to provide customer, network, and printer hardware and software, and to purchase desktop computer hardware upgrades.	\$300,000	Release RFQ November 6, 2015; Approve Vendors List and Award Purchase February 5, 2016	On Schedule
Telecomm Services	Select vendor(s) to provide local, long distance, internet, cellular services, and phone equipment maintenance for a three-year period.	\$750,000	Release RFP September 4, 2015; Award Contract(s) December 4, 2015	On Schedule

Double-lined Rows - Board Agenda items current for this month

Shaded Rows - activities completed

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 27

REPORT: Administrative Committee

SYNOPSIS: The Administrative Committee met on Friday, October 9, 2015. The Committee discussed various issues detailed in the Committee report. The next Administrative Committee meeting is scheduled for Friday, November 13, 2015 at 10:00 a.m.

RECOMMENDED ACTION:
Receive and file.

Dr. William A. Burke, Chair
Administrative Committee

nv

Attendance: Attending the October 9, 2015 meeting were Committee Vice Chair Dennis Yates and Committee Member Judith Mitchell at SCAQMD headquarters, and Committee Chair Dr. William A. Burke and Committee Member Dr. Clark E. Parker, Sr. via videoconference.

ACTION/DISCUSSION ITEMS:

On the suggestion of the Chairman, and as moved by Mitchell and seconded by Yates, Items 1 through 6 were approved on a consent basis due to time constraints.

1. **Board Members' Concerns:** None to report.
2. **Chairman's Report of Approved Travel:** The Committee written report included a report on Dr. William Burke's upcoming travel to the November 16-18, 2015 Drone World Expo.
3. **Approval of Compensation for Board Member Assistant(s)/Consultant(s):** None to report.
4. **Report of Approved Out-of-Country Travel:** None.

5. **Establish Board Meeting Schedule for Calendar Year 2016:** Executive Officer Dr. Barry Wallerstein inquired as to what the committee's preference would be for scheduling the July 2016 Board meeting: July 1, 2016 or July 8, 2016. Dr. Burke responded that his preference was to schedule the July 2016 Board meeting on July 8, 2016.

6. **Annual Report on 457 Deferred Compensation Plan**

7. **Reissue RFP for Refurbishment of Pace Air Handlers at SCAQMD Headquarters:** Assistant DEO Bill Johnson reported that staff is requesting to reissue an RFP for refurbishment of Pace Air Handlers at headquarters due to only one responsive bid received during the first release of the RFP, with a proposed cost well in excess of what was allowed in the budget.

Moved by Mitchell; seconded by Yates; unanimously approved.

8. **Execute Contract for Website Evaluation and Improvement:** Assistant DEO/Information Management Chris Marlia reported this item is coming back for selection of a contractor for website evaluation and improvement. Mr. Marlia provided a brief comparison of the two proposals' costs in terms of hours and labor rate(s), previous work with SCAQMD, and sample work from educational/government and commercial websites. Mr. Marlia added that one of the two contractors, 360 Business Consulting, did not follow-through to complete a scheduled interview with Dr. Lyou, one of the stakeholders scheduled for interview. Dr. Wallerstein commented as part of the process of speaking with stakeholders, a Board Member interview should have been seen as high priority. Dr. Burke inquired as to Mr. Marlia's recommendation in selecting a contractor. Mr. Marlia responded that both contracting companies have good references, with pleasing sites, but his choice would be Xivic since he has had a positive experience with Xivic through their work on the SCAQMD's content management system for the current website. Dr. Wallerstein commented that 360 Business Consulting's hourly wages appeared low; part of 360 Business Consulting's explanation was that they were charging other clients more so that would enable them to charge the SCAQMD less. Dr. Wallerstein's concern was that the 360 Business Consulting's hourly wages were so low that the agency may not obtain the hours that are necessary to complete the website project. Dr. Burke inquired as to Councilmember Mitchell's recommendation for selecting a contractor. Councilmember Mitchell responded that Xivic would be a good choice since they are already familiar with the SCAQMD's operations and further, 360 Business Consulting not following through with a Board Member is rather concerning since that shows that they are not taking this opportunity seriously. Mayor Yates's choice was Xivic due to the simple layout of Xivic's sample websites. Dr. Parker inquired on the cost if there are any additional conversions to the new website; would it be part of the overall cost and what is the timeframe? Mr. Marlia responded that based on the cost to convert from the previous website to the current website, this effort should be somewhat less than

the initial cost and that the budget is sufficient to cover it. The contractors are recommending four to six months for a website update. Mayor Yates suggested creating an oversight committee to oversee the work of the new contractor as they begin to transform the current website into a new website and Dr. Burke concurred. Dr. Parker inquired as to whether the contract would transition to an hourly rate or is it all-inclusive if additional work is needed? Mr. Marlia responded that the cost is included on the chart, up through Task 2, where recommendations are made. In response to Dr. Parker, Mr. Marlia advised that the budget is \$200,000 for this effort. Dr. Wallerstein clarified that once the contractor reaches Task 3, this item will come back to the Board, in consultation with the new committee, with the new website's design, and the remaining cost will be determined at that time. In consideration of Committee Members' comments, Dr. Burke concluded that Xivic is recommended as the contractor for the web evaluation and improvement.

Moved by Mitchell; seconded by Parker; unanimously approved.

On the suggestion of the Chairman, and as moved by Yates and seconded by Parker, Items 9 through 13 were approved by consent due to time constraints.

9. **Recognize Revenue and Appropriate Funds for U.S. EPA PAMS, U.S. EPA PM2.5 and U.S. Government Programs, Amend Contracts for Technical Support for U.S. EPA PAMS, and Issue RFQs and Purchase Orders for Air Monitoring Equipment and Upper Air Meteorology Equipment Warranty Services**
 10. **Report of RFQs Scheduled for Release in November**
 11. **Recognize Revenue and Amend Contract for Technical Advisor Services to Community Members of Exide Technologies Advisory Group**
 12. **Local Government & Small Business Assistance Advisory Group Minutes for the July 17, 2015 Meeting:** Attached for information only are the minutes from the July 17, 2015 meeting of the Local Government & Small Business Assistance Advisory Group.
 13. **Review of the November 6, 2015 Governing Board Agenda:** Waived by the Committee.
 14. **Public Comment:** None.
- Meeting adjourned at 11:10 a.m.

Attachment

Local Government & Small Business Assistance Advisory Group Minutes from the July 17, 2015 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, JULY 17, 2015 MEETING MINUTES

MEMBERS PRESENT:

Dennis Yates, Mayor, City of Chino and LGSBA Chairman
Ben Benoit, Councilman, City of Wildomar and LGSBA Vice Chairman
Felipe Aguirre
Paul Avila, P.B.A. & Associates
Geoffrey Blake, Metal Finishers of Southern California/All Metals
Todd Campbell, Clean Energy
Maria Elena Kennedy, Kennedy Communications
Rita Loof, RadTech International
David Rothbart, Los Angeles County Sanitation District

MEMBERS ABSENT:

Lupe Ramos Watson, Councilmember, City of Indio

OTHERS PRESENT:

Bob Ulloa, Board Member Assistant (*Yates*)
Mark Abramowitz, Board Member Assistant (*Lyou*)
Marisa Perez, Board Member Assistant (*Mitchell*)
Andrew Silva, Board Member Assistant (*Rutherford*)

SCAQMD STAFF:

Derrick J. Alatorre, Asst. Deputy Executive Officer/Public Advisor
Guillermo Sanchez, Senior LPA Manager
Joe Cassmassi, Planning & Rules Director
Hannea Cox, AQ Engineer II
Philip Fine, Deputy Executive Officer
Tracy Goss, Planning & Rules Manager
Priscilla Hamilton, AQ Specialist
Lori Langrell, Secretary
Jill Whynot, Asst. Deputy Executive Officer

Agenda Item #1 - Call to Order/Opening Remarks

Chair Dennis Yates called the meeting to order at 11:30 a.m.

Agenda Item #2 – Approval of May 15, 2015 Meeting Minutes/Review of Follow-Up/Action Items

Chair Yates called for approval of the May 15, 2015 meeting minutes. The Minutes were approved unanimously.

Agenda Item #2 –Review of Follow-Up/Action Items

Mr. Guillermo Sanchez advised there were no follow up items that arose out of the May 15, 2015 meeting.

Agenda Item #3 – 2016 AQMP Inventory and Modeling Updates

Mr. Joe Cassmassi presented an update on 2016 AQMP Inventory and Modeling.

Mr. Paul Avila asked what the population is of cattle in Chino. Previously the cattle population was around 500,000, but now are down to 250,000 within Chino, Hemet, and the “Preserve” development in Ontario.

Mr. Todd Campbell noted that on-road heavy-duty is listed as the number one source of NO_x, same for San Joaquin, but when he has mentioned this to ARB they do not agree. Mr. Cassmassi indicated at the technical level the agencies are in relative agreement, what is being targeted is the .02 NO_x grams per mile emission for the engine of the future. Mr. Campbell further asked when referencing heavy-duty is it Class 4 Class A, or Class 7 Class A. Mr. Cassmassi clarified that he is referencing heavy-duty Class 7 Class A.

Ms. Rita Loof asked if desired 25.8 reduction was in percentage or tons. Mr. Cassmassi clarified he was referring to tons. Ms. Loof further asked whether the decreases were in stationary or mobile sources and whether they were attributed to District Rules? Mr. Cassmassi answered the decrease is attributed to a combination of changes in vehicle fleets and district rules.

Mr. David Rothbart asked how reliable was the data given changes in the mobile fleet. Mr. Cassmassi indicated these are baseline inventories based on the post 2012 RTP growth factors and which will be subsequently updated with the 2016 RTP numbers. These inventories are adopted at the local and state levels and then projected forward. .

Mr. Avila inquired where airports fall in this category. Mr. Cassmassi replied ten (10) tons of NO_x per year, we have a contractor working with them to see if there are modifications to our last inventory. Planes are federally controlled, the big issue is in the projection of millions of persons going through the airports.

Ms. Loof asked with the VOC only and NO_x only control strategies indicated, has the District decided which way they are going to go because there seems to be a blended strategy in the VOC White Papers. Mr. Cassmassi replied it is not designed to be a specific strategy. However, for all intents and purposes we will focus on NO_x control strategy, but to minimize population exposure in different parts of the basin, reductions in VOC emissions will help because of the VOC/NO_x ratio and the differential reactivity of the gases. This may require alternative approaches over the course of the day and as one is closer to an emissions source.

Mr. Avila asked if the state of California runs a parallel study, how different from ours would the results be. Mr. Cassmassi indicated that CARB and this Agency are working closely together exchanging data. CARB will run the models on the northern part of the state and SCAQMD will cover all of southern California, including San Diego, Imperial, and San Joaquin. Mr. Avila further asked whether a large differentiation in the results would be indicative of an error. Mr. Cassmassi explained that it may be indicative of different assumptions; not necessarily an error.

Mr. Blake indicated he lives in San Clemente, and in the last four to five months he noted that AQMD was reporting moderate air quality. Why are the more recent reports indicating poorer quality air when to him it seemed the same. Mr. Cassmassi explained that the federal standard changed from 85ppb to 75 ppb, resulting in a change in the air quality index. Same air, different rating.

Agenda Item #4 – Draft 2016 AQMP Business Case White Paper

Ms. Priscilla Hamilton provided a presentation regarding the Draft 2016 AQMP Business Case White Paper.

Mr. Avila asked whether pathways meant freeways. Ms. Hamilton defined pathways as the route that you take to come into compliance; which strategy or options you use.

Ms. Loof asked to confirm that the deadline for public comment is today, July 17th. Ms. Hamilton answered in the affirmative. Ms. Loof further indicated that she will put comments on record today.

Ms. Loof indicated that previously the focus did not seem to be on fleets; rather the focus was on stationary sources, specifically small business, and she wondered whether the current discussions indicated a shift. Mr. Cassmassi indicated there are several white papers being developed simultaneously. The “Business Case” white paper looks at how through changing equipment or technology, monetary gains, switching fuels and driving patterns, companies are now looking toward making the switch to clean technologies.

Ms. Whynot indicated to Ms. Loof that today is an interim date for comments, there are plenty of opportunities to comment, she doesn’t have to feel compelled to comment right away.

Ms. Loof provided comment as follows: The planning concepts where you reduce the burdens for compliance and enforcement, from a business standpoint, in the White Papers Committee meetings there was a lot of discussion regarding what exactly is a business case. For industry, the definition is not the same definition as the District’s definition. For industry the issue is whether the product is going to be profitable? Where we want help from the district is paperwork reduction, enabling clean technology to operate here more easily. Incentives are appreciated, especially if the process were more friendly, easier, etc., especially to those that don’t have an environmental consultant.

Dr. Fine replied that he heard a lot of comments about business case and we are looking at revising the definition. Not only a way to comply with a rule, but also looking at shifting and be more encompassing.

Mr. Avila asked how representative was the sampling for the white paper. Ms. Hamilton stated that the case study included 5 in depth cases: 2 small business, 3 larger.

Agenda Item #5 – Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

Mr. Tracy Goss provided a presentation regarding the further reductions of particulate emissions from Cement Manufacturing Facilities.

Mr. Blake asked what the hexavalent chromium 6 concern was at the location under study. Mr. Goss indicated we are working with the Department of Toxic Substances Control and have been working with both companies for at least five years. Mr. Goss further indicated that as staff is working on final

development of the rule, the largest issue is fugitive dust and particulate matter, and are we bring proactive.

Ms. Loof asked why are they shutting down if they are in compliance. Chair Yates indicated the companies were in compliance only because they aren't operating. In fact, the company's primary interest is in shutting down, getting cleared, and selling off the property. Mr. Goss further explained that the quality of limestone in the current mine has been decreasing and the facility is no longer able to produce the clinker needed. Current need is being met by another plant and may not be profitable in the long term for the company to start production at this site.

Mr. Goss advised that under the mining reclamation plan, they should be done and out in three years. They have to demonstrate there won't be any exposure to hexavalent chromium, in that they will be burying everything that is left.

Mr. Todd Campbell asked what about the impact on the water table. Mr. Goss indicated there is no ground water contamination. Ms. Whynot advised one of the areas of concern is the demolition of the existing building. There is a large amount of dust in the packaging area, among other areas, and we don't have know how long hexavalent chromium will be present in the dust formed on many of these acres. It will need to be monitored for awhile. At Riverside Cement there are homes around the area of their 200-300 acres. We need to make sure it's workable, and we are not exposing the people around the location.

Agenda Item #6 –Monthly Report on Small Business Assistance Activities

No comments.

Agenda Item #7 - Other Business

No comments.

Agenda Item #7 - Public Comment

No comments.

Adjournment

The meeting adjourned at 12:43 p.m.

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BOARD MEETING DATE: November 6, 2015

AGENDA NO. 28

REPORT: Legislative Committee

SYNOPSIS: The Legislative Committee held a meeting on Friday, October 9, 2015. The next Legislative Committee meeting is scheduled for Friday, November 13, 2015 at 9 a.m. in Conference Room CC8.

The Committee deliberated on agenda items for Board consideration and recommended the following action:

Agenda Item	Recommendation
Interview and Recommend Execution of Contract(s) for Legislative Representation in Washington, D.C.	Authorize the Chairman to execute contracts with The Carmen Group, Inc.; Cassidy & Associates, Inc.; and Kadesh & Associates, Inc. for Legislative Representation in Washington, D.C.

RECOMMENDED ACTION:

Receive, file this report, and approve agenda item as specified in this letter.

Judith Mitchell
Chair
Legislative Committee

Attendance [Attachment 1]

The Legislative Committee met on October 9, 2015. Committee Chair Judith Mitchell was present at SCAQMD's Diamond Bar headquarters. Committee Members Michael D. Antonovich, Dr. William A. Burke, Dr. Clark E. Parker, Sr. and Janice Rutherford attended via videoconference. Committee Member Joe Buscaino was absent.

Update on State Legislative Issues

SCAQMD state legislative consultant, Jason Gonsalves of Joe A. Gonsalves & Son, briefed the Committee on key Sacramento issues.

Friday, September 11 was the last day of the 2015 Legislative Session, which started the 30 day deadline (until October 11) for the Governor to act on all bills sent to him. Overall, 941 bills were sent to the Governor. Although the Legislature is not scheduled to reconvene until January 4th, the Governor called two extraordinary sessions. One is on Transportation and the other is on Healthcare. Prior to adjournment, the Legislature did send some legislative vehicles to the extraordinary sessions' conference committees. Although the conference committee members were appointed, there has been little to no action by either committee. Any action on these two issues that might involve additional fees and/or taxes would require a two-thirds majority vote to pass; however, there is little feeling that such a vote would happen.

2016 will be the second year of the two-year legislative session. All 2015 bills leftover must pass out by August 31, 2016, with the exception of urgency bills.

For the 2016 election year:

- There are currently five initiatives that qualified for the 2016 ballot with an additional 75 pending at various stages of the qualification process.
- In addition to the propositions, the 2016 elections will bring the entire State Assembly under the new 12-year term limit rule, as there are 16 Members terming out in 2016.
- 31 of the 40 Senators fall under the old term limits law of two 4-year terms. The remaining nine Senators fall under the new 12-year term limit rule.

With regard to leadership changes:

- Back in February, the Senate Republicans elected Senator Jean Fuller to be the next Republican leader, replacing Senator Bob Huff. This makes Senator Fuller the first female Senate Republican leader in the State's history. Senator Fuller terms out in 2018.
- On September 1, 2015 the Assembly Republican's elected Assembly Member Chad Mayes as their Republican leader. Assembly Member Mayes is in his first year and has 11 years remaining under term limits.

- On September 3, 2015, Assembly Member Anthony Rendon was elected to be the next Assembly Speaker, replacing current Assembly Speaker Toni Atkins. Currently, Assembly Member Rendon is not slated to take over until late 2016. However, this timeline is flexible, especially given that Speaker Atkins has announced her intention to run for Senate. Assembly Member Rendon was elected in 2012 and has the potential to serve as Speaker until 2024.

SCAQMD state legislative consultant, Will Gonzalez of Gonzalez, Quintana & Hunter, also briefed the Committee on key legislative issues and related matters in 2015:

- **SB 350 (de León) Clean Energy and Pollution Reduction Act of 2015**
This bill, which was recently signed by the Governor, increases the Renewable Portfolio Standard (RPS) to 50% by 2030 and doubles buildings' energy efficiency in electricity and gas by 2030. However, the third provision regarding a required 50% reduction in petroleum use in California was dropped in order to secure the votes for passage. Overall, this bill is still a significant piece of legislation despite this removal. One key consequence of this bill is that it allows utilities to claim carbon credit for their investments in electric vehicle (EV) infrastructure. This incentive places electric utilities in direct competition with the oil industry.
- **SB 32 (Pavley) - California Global Warming Solutions Act**
This bill would have codified the Governor's Executive Order of greenhouse gas (GHG) reduction goals of 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. In response to various concerns expressed, Senator Pavley added language to the bill that gave the Legislature increased power over the California Air Resources Board (CARB) programs related to these GHG goals. However, this amendment proved to be controversial. The bill also contained language, included at SCAQMD's request, to ensure that nothing in the bill impacted local air district authority to meet federal Clean Air Act requirements. In the end, this bill failed passage on the Assembly Floor; however, it is eligible to be taken up again for consideration in 2016.
- **AB 1288 (Speaker Atkins) – CARB Board Members**
This bill originally would have permanently removed the state Cap and Trade program's sunset date. That provision did not have the votes to pass. The bill was gutted and amended near the end of session to instead add two members to the CARB Board who work with environmental justice (EJ) communities. One member would be appointed by the Senate Rules Committee, and the other by the Assembly Speaker. This bill was recently signed by the Governor and provides additional Legislative oversight of CARB's work programs.

- SB 513 (Beall) - Carl Moyer Memorial Air Quality Standards Attainment Program
This bill was sponsored by the California Air Pollution Control Officers Association (CAPCOA). It updated cost-effectiveness definitions and other provisions relating to the Carl Moyer program. This bill was fairly non-controversial and was recently signed by the Governor.
- GHG Cap and Trade Funding
The Legislature's 40% of greenhouse gas Cap and Trade funding to allocate this past fiscal year amounted to just under one billion dollars. The funding remains unexpended as there was no consensus on where to direct these investments. The understanding was that these funds would be allocated later in the year, but that also did not happen. Cap and Trade auctions continue and the funds available are only growing. The Governor's January budget is expected to have a proposal on how to spend these funds.

Discussions were had regarding the criteria for selection of the two new EJ-focused CARB board members created through AB 1288 (Speaker Atkins). The estimated amounts of unspent 2015 and upcoming 2016 Cap and Trade funds were also discussed by the Committee. Possible approaches to ensuring that a fair share of this money is spent on achieving co-benefit criteria pollutant emission reductions and on addressing EJ issues were also discussed by the Committee. It was also mentioned that CARB has recently put out a draft Mobile Source Strategy document detailing what kinds of controls are needed to address mobile sources of pollution under both state and federal jurisdiction and to meet federal standards. Related funding needs will also be calculated as a next step in the process.

Interview and Recommend Execution of Contract(s) for Legislative Representation in Washington, D.C.

In preparation for the interviews, the Committee members discussed the questions to be asked of the three top qualified firms and the process for their selection. They then proceeded with the interviews of:

The Carmen Group, Inc.
Cassidy & Associates, Inc.
Kadesh & Associates, Inc.

After the interviews were concluded, the Committee Members unanimously recommended that the Board authorize the execution of contracts with The Carmen Group, Inc.; Cassidy & Associates, Inc. and with Kadesh & Associates, Inc. *[Refer to the November 6, 2015 Board Agenda item 11 for additional information on this matter.]*

Report from SCAQMD Home Rule Advisory Group [Attachment 2]

Please refer to Attachment 2 for written report.

Other Business:

None

Public Comment Period:

No public comment.

Attachments

1. Attendance Record
2. SCAQMD Home Rule Advisory Group Report

ATTACHMENT 1

ATTENDANCE RECORD –October 9, 2015

SCAQMD BOARD MEMBERS:

Councilmember Judith Mitchell, Chair
Supervisor Michael Antonovich (Videoconference)
Dr. William A., Burke (Videoconference)
Dr. Clark E. Parker (Videoconference)
Supervisor Janice Rutherford (Videoconference)

STAFF TO COMMITTEE:

Lisha B. Smith, Deputy Executive Officer
Derrick Alatorre, Assistant Deputy Executive Officer/Public Advisor
Guillermo Sanchez, Senior Public Affairs Manager
Julie Franco, Senior Administrative Secretary

SCAQMD STAFF:

Barry R. Wallerstein, Executive Officer
Daniela Arellano, Senior Public Information Specialist
Barbara Baird, Chief Deputy Counsel
Marc Carrel, Program Supervisor
Philip Crabbe, Community Relations Manager
Philip Fine, Deputy Executive Officer
Bayron Gilchrist, Assistant Chief Deputy Counsel
Chris Marlia, Assistant Deputy Executive Officer
Matt Miyasato, Deputy Executive Officer
Robert Paud, Telecommunications Supervisor
Mary Reichert, Senior Deputy District Counsel
Cher Snyder, Assistant Deputy Executive Officer
Laki Tisopulos, Assistant Deputy Executive Officer
Jeanette Short, Senior Administrative Secretary
Patti Whiting, Staff Specialist
Bill Wong, Principal Deputy District Counsel
Rainbow Yeung, Senior Public Information Specialist (Videoconference)

OTHERS PRESENT:

Mark Abramowitz, Governing Board Member Consultant (Lyou)
David Carmen, The Carmen Group
Tom Dennis, Cassidy & Associates
Kaleb Froehlich, Cassidy & Associates
Jason Gonsalves, Joe A. Gonsalves & Son (teleconference)
Will Gonzalez, Gonzalez, Quintana & Hunter, LLC (teleconference)
Stewart Harris, The Carmen Group
Gary Hoitsma, The Carmen Group
Amelia Jenkins, Cassidy & Associates
Mark Kadesh, Kadesh & Associates
Chris Kierig, Kadesh & Associates
Bill LaMarr, California Small Business Alliance
Chung Liu, Governing Board Member Consultant (Mitchell)
Rita Loof, RadTech
Debra Mendelsohn, Governing Board Consultant (Antonovich)
David Rothbart, Los Angeles County Sanitation Districts
Andy Silva, Governing Board Member Consultant (Rutherford)
Susan Stark, Tesoro
Lupe C. Valdez, Union Pacific
Warren Weinstein, Kadesh & Associates
Peter Whittingham, CP & A

ATTACHMENT 2

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

LEGISLATIVE REPORT FROM HOME RULE ADVISORY GROUP MEETING OF JULY 22, 2015

HRAG members present:

Dr. Joseph Lyou, Chairman

Dr. Philip Fine, SCAQMD

Elizabeth Adams, EPA (participated by phone)

Mike Carroll, Latham & Watkins on behalf of the Regulatory Flexibility Group

Curt Coleman, Southern California Air Quality Alliance

Chris Gallenstein, CARB (participated by phone)

Sue Gornick, WSPA

Jayne Joy, Eastern Municipal Water District

Bill LaMarr, California Small Business Alliance

Rongsheng Luo, SCAG (participated by phone)

Art Montez, AMA International

Diane Moss, Renewables 100 Policy Institute

Bill Quinn, CCEEB (participated by phone)

Terry Roberts, American Lung Association of California

David Rothbart, Los Angeles County Sanitation Districts

Larry Smith, Riverside Cement

TyRon Turner, We Care About You

Lee Wallace, So Cal Gas and SDG&E

Others: Mark Abramowitz (Board Consultant to Dr. Lyou); Daniel McGivney (SoCalGas/SDG&E); Noel Muyco (SoCalGas/SDG&E); and Rita Loof (Radtech).

AQMD Staff: Philip Crabbe, Jill Whynot, Bill Wong, Cristina Lopez, and Marilyn Traynor

LEGISLATIVE UPDATE

Philip Crabbe reported on the following items that were discussed at the Legislative Committee meeting on July 17, 2015:

Federal

The U.S. House of Representatives passed its version of a bill that would extend current program levels under the MAP-21 Surface Transportation bill for an additional five months, to December 18, 2015. To continue funding the programs, \$8 billion would be transferred to the Highway Trust Fund (\$5 billion from a variety of tax compliance measures and \$3 billion in savings from Transportation Security Administration fees). The bill will now go to the Senate for consideration. There is a separate Senate bill with different provisions that is currently being negotiated. House leaders are hoping that the extension to December 18 will allow additional time to develop a more comprehensive tax reform package. The Senate Commerce Committee recently marked up and passed out the rail title of a transportation bill.

The full House has passed six out of 12 appropriations bills. The House was unable to pass the Interior-Environment spending bill that oversees the U.S. Environmental Protection Agency's (EPA) budget and includes funding for the Targeted Airshed Grant Program and the Diesel Emission Reduction Act (DERA) program. The full House recently suspended consideration of the bill after controversy arose with regard to an amendment about the use of the confederate flag. An omnibus package is likely to be passed in December.

Funding of the federal government after September 30, 2015, is likely to be carried on through a continuing resolution. In the past, zero-emissions goods movement funding has been excluded from long-term continuing resolutions. However, Senator Feinstein is pressing for the inclusion of this zero emission goods movement funding provision.

Within the next month or two, the U.S. Department of Energy (DOE) is expected to release a request for proposals for zero emissions goods movement projects. SCAQMD will be eligible to apply for the \$10 million budgeted to fund the program.

State

The following bills were reported on at the Legislative Committee:

SB 350 (De León)-Clean Energy and Pollution Reduction Act of 2015

SB 350 would increase renewable energy by 50%, reduce oil use by 50%, and increase building energy efficiency by 100%. SB 350 passed through the Senate and negotiations continue in the state Assembly. Some provisions at issue involve: (1) rooftop solar energy and utilities' renewable energy requirements; (2) credit for utilities for electrification of transportation; and (3) the oil reduction provisions.

SB 32 (Pavley)-California Global Warming Solutions Act of 2006: emissions limit

SB 32 would create new 2030 and 2050 greenhouse gas reduction goals. The goal for 2050 would call for 80% reduction below 1990 levels. SB 32 passed through the Senate and is pending in the Assembly.

AB 1288 (Atkins)-California Global Warming Solutions Act of 2006: regulations

AB 1288 would remove the sunset on the cap-and-trade program for greenhouse gas. There is a mix of positions on this bill.

SB 513 (Beall)-Carl Moyer Memorial Air Quality Standards Attainment Program

This bill has recently passed out of the Assembly Transportation Committee and is pending in the Senate Appropriations Committee.

AB 693 (Eggman)-Multifamily Affordable Housing Renewables Program

This is a "gut and amend" bill which would set aside \$100 million per year, or approximately 10% of the cap and trade utility auction revenues currently being rebated to utility customers, and use it to create a rooftop solar program for disadvantaged communities, with low-income multifamily developments being a target in particular. Approximately \$1 billion has been set aside to fund this program over a ten-year period. The bill passed its first policy committee.

The Governor signed the budget by the June 15, 2015 deadline; however, about 40% of the greenhouse gas reduction funds (over \$800 million) were unallocated pending further negotiations. These funds will likely be addressed during the end-of-session negotiations.

The Governor has called for two Extraordinary Legislative Sessions. The first will be focused on transportation/infrastructure funding (gas tax, registration fees, vehicle maintenance fees). The second will be focused on Medi-Cal.

Discussion

Mr. Quinn reported that, after a 3-1/2 hour hearing and by a 3-0 vote, the Senate Rules Committee approved Barbara Lee's candidacy for Director of the Department of Toxics Substances Control (DTSC). Her appointment still needs to go before the full Senate for approval but is considered a formality.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

LEGISLATIVE REPORT FROM HOME RULE ADVISORY GROUP MEETING OF SEPTEMBER 16, 2015

HRAG members present:

Dr. Joseph Lyou, Chairman

Dr. Philip Fine, SCAQMD

Elizabeth Adams, EPA (participated by phone)

Patrick Au on behalf of Chris Gallenstein, CARB (participated by phone)

Mike Carroll, Latham & Watkins on behalf of the Regulatory Flexibility Group

Curt Coleman, Southern California Air Quality Alliance

Sue Gornick, WSPA

Jayne Joy, Eastern Municipal Water District

Bill LaMarr, California Small Business Alliance

Rongsheng Luo, SCAG (participated by phone)

Dan McGivney on behalf of Lee Wallace, So Cal Gas and SDG&E

Art Montez, AMA International

Diane Moss, Renewables 100 Policy Institute

Terry Roberts, American Lung Association of California

Larry Rubio, Riverside Transit Agency (participated by phone)

TyRon Turner, We Care About You

Others: Mark Abramowitz (Board Consultant to Dr. Lyou); Earl Elrod (Board Consultant to Mayor Yates); Noel Muyco (SoCalGas/SDG&E); and Susan Stark (Tesoro).

AQMD Staff: Teresa Barrera, Philip Crabbe, Megan Lorenz, Karin Manwaring, Jill Whynot, Bill Wong, and Marilyn Traynor

LEGISLATIVE UPDATE

Since the Legislative Committee did not meet in September, Philip Crabbe had nothing new to report. Dr. Lyou asked for an update on bills resulting from the end of the legislative session. Mr. Crabbe responded that SB 350 (De León) passed through the legislature with the portion relating to petroleum removed. Dr. Lyou added that the legislature revised AB 1288 (Atkins) which proposes to add two seats to the Air Resources Board—one seat appointed by the Senate President Pro Tem and one appointed by the Assembly Speaker. Mr. Crabbe noted that the Legislative Committee will meet on October 9, 2015, but the meeting will likely only include interviews for the SCAQMD's federal legislative representation.

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BOARD MEETING DATE: November 6, 2015

AGENDA NO. 29

REPORT: Mobile Source Committee

SYNOPSIS: The Mobile Source Committee met on Friday, October 16, 2015. Following is a summary of that meeting. The next Mobile Source Committee meeting is scheduled for Friday, November 20, 2015 at 9:00 a.m.

RECOMMENDED ACTION:
Receive and file.

Dr. Clark E. Parker, Sr., Chair
Mobile Source Committee

PMF:AFM

Attendance

Committee Members Dr. Joseph Lyou and Judith Mitchell attended at SCAQMD headquarters. Committee Chair Dr. Clark E. Parker, Sr. and Committee Member Ben Benoit attended via videoconference. Vice-Chair Dr. Joseph Lyou called the meeting to order at 9:00 a.m.

Dr. Lyou recommended that agenda item #3 be taken out of order, as the presenter's presence was constrained by airport departure time.

The following items were presented:

INFORMATIONAL ITEM:

3) CARB Mobile Source Strategy – Draft Discussion

Kurt Karperos, CARB Deputy Executive Officer, gave an informational briefing on CARB's recent release of their draft Mobile Source Strategy.

Mr. Karperos described the multiple planning efforts outlined in the Mobile Source Strategy. He stated that in addition to mapping out an attainment demonstration through broad control strategies, the Strategy also outlines specific measure concepts

for the SIP. Proposed measure concepts for passenger vehicles, heavy-duty trucks, and off-road equipment were discussed. Mr. Karperos stated that federal and international sources, such as ships, aircraft and locomotives are more difficult to regulate since they fall primarily under federal authority. Dr. Lyou inquired if CARB has determined that non-switch locomotives that do not leave the State would be subject to CARB regulatory action; Mr. Karperos confirmed. He concluded that CARB and SCAQMD staff have collaboratively mapped out concepts in the basic framework in order to achieve the 2023 attainment goal, and are now looking into the potential costs and funding sources.

Dr. Barry Wallerstein, Executive Officer, added that CARB analysis shows health impacts of over 4,000 premature deaths per year in our District, mostly resulting from fine particulate matter (PM2.5). In the context of SB 350, petroleum reduction has been characterized as a rationing of gasoline at service stations; however the CARB strategy focuses on measures to reduce NOx and greenhouse gases by increasing fuel efficiency and fuel reformulation. Dr. Wallerstein commends CARB for their collaborative efforts with the SCAQMD, especially with this document. Currently, U.S. EPA does not have a strategic plan on Mobile Sources, and staff recommends supporting CARB as it petitions U.S. EPA to establish a national heavy-duty engine emissions standard.

During Public Comment, Lee Wallace from SoCal Gas referred to findings from a study conducted by Energy + Environmental Economics (E3) in the 'PATHWAYS' Project (a multi-agency engagement), evaluating the comparative feasibility and cost of a range of GHG reduction scenarios in California. E3's preliminary results include a scenario which attains 2030 and 2050 goals in part by timely replacement of transportation fossil fuels with advanced decarbonized biofuels. Mr. Wallace stated that this proposal would not take the place of current strategies, and instead would be additional to the current plan.

Councilmember Judith Mitchell extended her thanks to SCAQMD and CARB staff, and stated that it is very gratifying to see both agencies working together so closely. Mayor Ben Benoit agreed with Ms. Mitchell's comments and concurred that both agencies should now work with U.S. EPA to make progress on nationwide issues. Dr. Lyou stated that funding issues are critical and inquired if this would be discussed in CARB's document. Mr. Karperos responded that the immediate goal of the document is to map out the goals for attainment, and they will then need to identify the estimated costs to reach attainment. Dr. Wallerstein added that a lot of funding will be needed, however ultimately the Governor will make those decisions through the legislature. Dr. Wallerstein continued that he supports that a greater portion of the Greenhouse Reduction funds go through CARB to be invested in the incentives needed for clean air. Dr. Joseph Lyou inquired about the recent natural gas engine certified to the 0.02 g/bhp-hr optional NOx standard that it actually is at

0.01 g/bhp-hr and asked if there is an explanation for the lower emissions level. Dr. Matt Miyasato, Deputy Executive Officer, Science and Technology commented that it was certified at the optional standard of 0.02 g/bhp-hr. The results of the engine emissions testing conducted for the certification are at the 0.01 g/bhp-hr level.

ACTION ITEMS:

1) Execute a Contract to Implement Leaf Blower Exchange Program

Vasken Yardemian, Sr. Staff Specialist, gave a presentation on the Leaf Blower Exchange Program. The presentation covered an update of last year's program and this year's Program Announcement to which one company responded. This is the first year that Pacific STIHL offered two types of zero-emission/low-noise lithium-ion battery operated model blowers in addition to a low-emission certified gasoline leaf blower. Dr. Lyou asked how many of the 120 dealers in Southern California are trained to service these battery operated leaf blowers. Staff responded that most of the dealers are trained because they are already selling battery operated blowers. He also asked if any other lawn and garden equipment manufacturers were interested in this Program Announcement. Staff answered that only one company had contacted the SCAQMD. There were no public comments on this item.

Moved by Mitchell; Seconded by Benoit; unanimously approved

2) Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2013-14

Kathryn Higgins, Program Supervisor, presented on this item. She noted that AB 2766 was signed into law in 1990 and currently authorizes a \$6 motor vehicle registration fee surcharge, of which 40% of \$4 of the funds is subvended to local governments to implement projects that reduce mobile source emissions. The purpose of the report is to summarize the outcome of FY 2013-14 AB 2766 Subvention Fund financial and program activity as reported by the 162 local government fund recipients. Ms. Higgins highlighted the Subvention Fund's financial summary which reflects a combined local jurisdiction beginning balance of \$42.3 million, funds received \$20.3 million, project spending \$19.8 million, and predesignated funds amounting to \$29.5 million. She reported that 353 projects were funded, with 222 reporting quantification of emission reductions during the FY 2013-14 reporting cycle.

[Dr. Parker joined the meeting via videoconference at 9:57 a.m.]

Expenditures in 10 project categories reflected that Alternative Fuels/Electric Vehicles and Transportation Demand Management had the highest spending totals, and the Traffic Management project category reported the highest emission

reductions. A total of 5,463 tons of emissions (NO_x, ROG, PM_{2.5} and CO/7) were reduced through project implementation. The overall average cost-effectiveness of all projects implemented was reported to be \$0.82/lb. During this reporting cycle, SCAQMD staff provided outreach including briefing policy makers, Council of Government staff, and encouraging local government attendance at AB 2766 trainings. Dr. Lyou inquired about the progress of staff's outreach to local governments. Ms. Higgins responded that while outreach is continuing, the turnover in local government staff contact persons can reduce the effectiveness of staff efforts; however, she also noted that recent outreach partnership between SCAQMD AB 2766 and Legislative & Public Affairs staff has been well received. There were no public comments on this item.

Moved by Lyou; Seconded by Mitchell; unanimously approved

WRITTEN REPORTS:

4) Rule 2202 Activity Report

The report was received as submitted.

5) Monthly Report on Environmental Justice Initiatives – CEQA Document Commenting Update

The report was received as submitted.

OTHER BUSINESS:

None.

PUBLIC COMMENT:

None.

The meeting was adjourned at 10:05 a.m.

Attachment

Attendance Roster

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MOBILE SOURCE COMMITTEE MEETING
Attendance Roster – October 16, 2015**

NAME	AFFILIATION
Dr. Clark E. Parker, Sr. (videoconference)	SCAQMD Governing Board
Dr. Joseph Lyou	SCAQMD Governing Board
Mayor Ben Benoit (videoconference)	SCAQMD Governing Board
Councilmember Judith Mitchell	SCAQMD Governing Board
Board Consultant Mark Abramowitz	SCAQMD Governing Board (Lyou)
Board Consultant Earl Elrod	SCAQMD Governing Board (Yates)
Board Consultant Chung Liu	SCAQMD Governing Board (Mitchell)
Board Consultant Debra Mendelsohn	SCAQMD Governing Board (Antonovich)
Board Consultant Ruthanne Taylor-Berger	SCAQMD Governing Board (Benoit)
Curtis Coleman	SoCal Air Quality Alliance
Kurt Karperos	California Air Resources Board
Noel Muyco	SoCal Gas
David Rothbart	Los Angeles County Sanitation Districts
Susan Stark	Tesoro
Lee Wallace	SoCal Gas
Barry Wallerstein	SCAQMD Staff
Philip Fine	SCAQMD Staff
Joe Cassmassi	SCAQMD Staff
Barbara Baird	SCAQMD Staff
Kurt Wiese	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Sam Atwood	SCAQMD Staff
Carol Gomez	SCAQMD Staff
Kathryn Higgins	SCAQMD Staff
Chris Marlia	SCAQMD Staff
Fred Minassian	SCAQMD Staff
Adewale Oshinuga	SCAQMD Staff
Dean Saito	SCAQMD Staff
Laki Tisopulos	SCAQMD Staff
Patti Whiting	SCAQMD Staff
Kim White	SCAQMD Staff
Vasken Yardemian	SCAQMD Staff

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 30

REPORT: Stationary Source Committee

SYNOPSIS: The Stationary Source Committee met Friday, October 16, 2015. Following is a summary of that meeting.

RECOMMENDED ACTION:
Receive and file.

Dennis Yates, Chair
Stationary Source Committee

MN:am

Attendance

The meeting began at 10:30 a.m. In attendance at SCAQMD Headquarters were Committee Chair Dennis Yates and Committee Members Judith Mitchell and Dr. Joseph Lyou. Committee Member Ben Benoit attended via videoconference. Absent was Committee Member Shawn Nelson. Mayor Yates announced that agenda item #4 would be taken out of order since it was continued from the previous month.

INFORMATIONAL ITEMS

4. Rule 1113 – Architectural Coatings

Dr. Phillip Fine, Deputy Executive Officer for Planning, Rule Development & Area Source, presented a summary of the staff proposal and an update on the changes being proposed since the Public Workshop. Members representing industry made the following comments:

David Darling of the American Coatings Association commented that the emissions from architectural coatings are four tons below the projected emissions from the 2012 Air Quality Management Plan so the small container exemption should not be phased out at this time. He emphasized rust preventatives and historical preservations as categories still needing the small container exemption. Mr. Darling also requested a further commitment from the SCAQMD to continue working on the volatile organic compound (VOC) test methods.

Barry Cupp of the Sherwin Williams Corporation commented that the test method being proposed for adoption is an improvement for low-VOC water based coatings,

but it does not work for all coating types. Mr. Cupp also asked for a commitment from the SCAQMD to continue working on the VOC test method.

Megan Gaughan of the Rust-Oleum Corporation distributed handouts and commented that water-based alkyd enamels do not perform well compared to solvent-based alkyds in a salt fog chamber, a standard corrosion test. The exempt solvent formulations do perform as well but would double the cost of a quart container. Mayor Yates requested to see salt fog results for the low-VOC exempt solvent rust preventative coatings.

Robert Wendoll of the Dunn Edwards Corporation also commented on the removal of the small container exemption for rust preventative coatings and stated that they will consider replacing them with aerosol coatings. He mentioned that aerosol coatings have more regulations but allow higher emissions. Mr. Wendoll also commented that the solvents used in their products have low reactivity. In addition, he noted there is no price incentive for the solvent-based over the water-based rust preventative coatings, in fact the profit margin is higher for their water based line. Mr. Wendoll commented that the performance of the water-based coatings is improving and that they are selling less solvent-based coatings, but the loss of the small container exemption would cause the shutdown of their local Los Angeles facility.

Howard Berman, an attorney representing the Rust-Oleum Corporation, commented that the company is working on possible alternative pathways to the phase out of the small container exemption with staff and requested that the rule come back to the November Stationary Source Committee.

Mohsen Nazemi, Deputy Executive Officer for Engineering & Compliance, brought to the attention of the Committee Members a comment received by Katy Wolf, from the Institute of Research and Technology Assistance, which supported SCAQMD staff's proposal to exempt 2-methyl-2-amino propanol (AMP) and requested the removal of tertiary butyl acetate (tBAC) as an exempt solvent.

After comments were received from members representing the coatings industry, Dr. Lyou inquired about the test method and staff's plan to address the remaining issues. Dr. Fine confirmed that staff will include a resolution to continue working on addressing the few remaining issues. Dr. Lyou also inquired about the statement from Rust-Oleum that transferring their compliant gallon formulation into quart containers would double the cost. Dr. Fine acknowledged that the claim was from the manufacturer. Dr. Lyou also inquired about the toxicity of tBAC, the status of the Office of Environmental Health Hazard Assessment (OEHHA) draft analysis and the exemption in Rule 1113. Dr. Fine stated that tBAC has toxicity associated with it, but staff will wait until the final assessment before considering a change and re-evaluate the worker exposure risks associated with the uses exempted in the rule. Barbara Baird, Chief Deputy Counsel, pointed out that the exemption for tBAC is limited to industrial maintenance coatings where personal protection equipment is

typically used and that a CEQA analysis was conducted at the time of the exemption, including worker exposure, but the new information will be considered. Councilmember Mitchell inquired about the corrosion testing that Rust-Oleum presented and asked if the SCAQMD had corrosion data on the water-based rust preventative coatings. Dr. Fine indicated that the results presented were conducted by Rust-Oleum, performance is very dependent on surface preparation, and we discussed conducting third-party testing to address the performance. Mayor Yates also questioned the results of the corrosion testing and requested more science data on the performance of the water-based coatings. Councilmember Mitchell encouraged staff to continue working with industry on these issues. Mayor Benoit expressed his concern about the price of the coating doubling if exempt solvents are utilized and encouraged outside testing of the water-based products.

1. Update on Industrial Facility Modernization White Paper

Susan Nakamura, Director of Strategic Initiatives in Planning, Rule Development and Area Sources, presented an update on the Industrial Facility Modernization White Paper. The concept of industrial facility modernization deals with encouraging new and existing stationary sources to use zero- or near-zero emission technologies. The approach in the White Paper is to present a comprehensive list of incentives to encourage facilities to implement zero- and near-zero emission technologies. Dr. Lyou wanted to be sure that the environmental community is aware of this White Paper and wants staff to fully vet the incentives, especially related to NSR reform, with the public before any recommendations are pursued. SCAQMD staff stated that many of the listed incentive concepts have been discussed over the past several years, and acknowledged the importance of a public process to prioritize which incentives to pursue. No public comments were made on this item.

2. Update on Regulation XX – Regional Clean Air Incentives Market RECLAIM

Dr. Philip Fine provided the Committee with an update on the proposed amendments to Regulation XX, which includes a 14 ton per day NO_x RECLAIM Trading Credit (RTC) reduction for the top 90 percent of RTC holders. The amount of reduction would depend on the industry category, and the programmatic reductions would occur on a proposed implementation schedule from 2016-2022. Staff is also proposing the establishment of a Regional NSR Holding Account for newer power plants that are required to hold RTCs at their potential to emit (PTE) level. Dr. Fine provided responses to several comments the Industry representatives made at the September 23, 2015 Stationary Source Committee special session.

Two representatives, Chuck Timms (representing the Cities of Burbank and Pasadena) and Curt Coleman (Southern California Air Quality Alliance) provided testimony to the Committee. Mr. Timms discussed the availability of credits for

electrical generating facilities after the shave, taking Resource Adequacy and the Renewable Portfolio Standard into consideration. He expressed concern that the current price trigger is too slow in responding to emergencies. To alleviate this problem, he wants assurance that credits in the Regional NSR Holding Account could be accessed at any time for a price. Mr. Coleman addressed the Committee and stated that he will come back with additional suggestions to close the gap between the Industry and staff proposals.

Dr. Joseph Lyou stated that he has three concerns. The first concern focused on the number of control devices installed based on the previous NOx RECLAIM amendment. He would like staff to generate a list of the controls that were not installed after the previous NOx RECLAIM amendment in 2005. The second concern is the lack of a program review if the RTC price is low. He would like an option for a program review if the RTC price falls too low. The third concern is the over-allocation of the program. Dr. Lyou would like some resolution language that would address this issue as the program progresses and have staff make ongoing adjustments, as opposed to making the adjustment the next time the program is amended.

Dr. Fine told the Committee that the proposed rule amendment had tentatively been scheduled for the November Board Hearing; Dr. Wallerstein stated that staff will be recommending delay of the Public Hearing until December, and that staff will continue to work with the stakeholders.

3. 2014 Annual Report on AB 2588 Air Toxics Hot Spots Program Concept for Early Risk Reduction for AB 2588 Facilities

Ian MacMillan, Planning and Rules Manager, presented the annual update for the implementation of the AB 2588 Air Toxics “Hot Spots” program. Mr. MacMillan discussed current and upcoming SCAQMD activities including a planned revision to the industry-wide Health Risk Assessments for gas stations and dry cleaners. In response to a question by Mayor Yates, Dr. Wallerstein clarified that there are no plans to further regulate dry cleaners. Susan Nakamura presented initial concepts for a voluntary early risk reduction for AB 2588 core facilities. Dr. Lyou asked how many potential facilities would be able to take part in early risk reduction. Ms. Nakamura and Mr. MacMillan responded; approximately 80 facilities. Dr. Lyou commented that early risk reductions are good, but it is important to maintain transparency for the public. Noel Muyco, from Southern California Gas Company representing California Council for Environmental and Economic Balance, and Mr. David Rothbart, from Southern California Alliance of Publicly Owned Treatment Works, commented that they support the initial concept. Mayor Ben Benoit indicated that he is pleased that there is support and he wants to see staff move forward.

WRITTEN REPORTS

All written reports were acknowledged by the Committee.

PUBLIC COMMENTS

There were no public comments.

The next Stationary Source Committee meeting is scheduled for November 20, 2015, and the meeting was adjourned at 11:55 a.m.

Attachments

Attendance Roster

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
STATIONARY SOURCE COMMITTEE
October 16, 2015
ATTENDANCE ROSTER (Voluntary)**

NAME	AFFILIATION
Mayor Dennis Yates	SCAQMD Governing Board Member
Councilmember Judith Mitchell	SCAQMD Governing Board Member
Mayor Ben Benoit (Videoconference)	SCAQMD Governing Board Member
Dr. Joseph Lyou	SCAQMD Governing Board Member
Board Consultant Mark Abramowitz	SCAQMD Governing Board (Lyou)
Board Consultant Chung Liu	SCAQMD Governing Board (Mitchell)
Barry Wallerstein	SCAQMD staff
Barbara Baird	SCAQMD staff
Kurt Wiese	SCAQMD staff
Philip Fine	SCAQMD staff
Mohsen Nazemi	SCAQMD staff
Jill Whynot	SCAQMD staff
Susan Nakamura	SCAQMD staff
Joe Cassmassi	SCAQMD staff
Cher Snyder	SCAQMD staff
Amir Dejbakhsh	SCAQMD staff
Bill Wong	SCAQMD staff
Bayron Gilchrist	SCAQMD staff
Bill Lamarr	California Small Business Alliance
Curt Coleman	So Cal Air Quality Alliance
David Rothbart	Los Angeles County Sanitation Districts

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 31

REPORT: Technology Committee

SYNOPSIS: The Technology Committee met on October 16, 2015. Major topics included Technology Advancement items reflected in the regular Board Agenda for the November Board meeting. A summary of these topics with the Committee's comments is provided. The next Technology Committee meeting will be held on November 20, 2015.

RECOMMENDED ACTION:

Receive and file.

John J. Benoit
Technology Committee Chair

MMM:pmk

Attendance: Supervisor John J. Benoit, Councilmember Joseph Buscaino and Mayor Miguel Pulido participated by videoconference. Councilmember Judith Mitchell and Mayor Dennis Yates were in attendance at SCAQMD headquarters. Supervisor Janice Rutherford was absent due to a conflict with her schedule.

NOVEMBER BOARD AGENDA ITEMS

1. **Recognize Revenue and Execute Contract for Development, Integration and Demonstration of Ultra-Low-Emission Natural Gas Engine for On-Road Heavy-Duty Vehicles**

The Board previously awarded contracts to Cummins Westport Inc. (CWI) and Cummins Inc. to develop next generation ultra-low-emission heavy-duty natural gas engines that are 90% cleaner than those meeting the current NOx emission standard. As a follow-on to this development project and given market demand for natural gas engines in the 11- to 13-liter range, the CEC, Southern California Gas Company and Clean Energy have expressed interest in cofunding the advancement of the current 11.9-liter natural gas engine to achieve ultra-low NOx emissions. These actions are to recognize revenues up to \$2.5 million and execute a contract with CWI for

development, integration and demonstration of an 11.9-liter ultra-low-emission natural gas engine in an amount not to exceed \$4.25 million from the Clean Fuels Fund (31).

Councilmember Mitchell asked whether the proposed 11.9-liter Cummins Westport, Inc., (CWI) engine is commonly used in freight transportation, and whether the proposed engine will be certified at 0.02g/bhp-hr NOx emissions. Staff responded yes, the 11.9-liter engine is commonly used in drayage trucks. Once the proposed engine is developed and demonstrated, Cummins Westport will submit an application to CARB and U.S. EPA for the engine to be certified at 0.02g/bhp-hr NOx or lower.

Supervisor Benoit questioned how further deployment of these 90% cleaner engines will get the South Coast Air Basin closer to federal attainment. Staff showed a scenario analysis indicating that if the new engines are widely deployed for class 8 trucks, we will be able to get very close to the 2023 Federal requirements.

Moved by Benoit; seconded by Mitchell; unanimously approved.

2. Execute Contract to Cosponsor Study on Opportunities and Benefits of Deploying Next-Generation Heavy-Duty Natural Gas Vehicles Operating on Renewable Natural Gas 

A leading natural gas engine manufacturer is targeting mid-2016 to commercialize the first natural gas engine achieving 90% lower NOx emissions than the current emissions standard. In addition, renewable natural gas (RNG) is currently being produced in large volume for use as a transportation fuel. While the benefits of significantly cleaner combustion engines and the use of renewable fuels have been individually studied, there has been no comprehensive assessment focused specifically on the air quality benefits of having significantly lower NOx combustion engines operating on renewable fuels or the market potential for such deployment. This action is to execute a contract with Gladstein, Neandross & Associates to conduct such a study in an amount not to exceed \$100,000, comprised of \$50,000 from the Clean Fuels Fund (31) and \$50,000 from the Natural Gas Vehicle Partnership Fund (40).

Moved by Yates; seconded by Mitchell; unanimously approved.

3. Execute Contract to Develop Online Application Database for Carl Moyer Program

The Carl Moyer Program receives several hundred applications for different types of vehicles and equipment during its annual open solicitation period. The projects must be evaluated for eligibility, cost-effectiveness, amount of funding, environmental justice ranking and other applicable factors before they can be considered for award.

Electronic acceptance of the applications will expedite the evaluation and reporting process as well as enhance uploading information into the state's Carl Moyer Program database. This action is to execute a contract with Trinity Technology Group to develop an online application database for the Carl Moyer Program in an amount not to exceed \$262,960 from the administrative portion of the Carl Moyer Program AB 923 Fund (80).

Moved by Yates; seconded by Mitchell; unanimously approved.

4. Adopt Resolution Accepting Terms and Conditions for Proposition 1B – Goods Movement Program Grants

In August 2015, SCAQMD submitted applications to CARB for the Fiscal Year 2015-16 Proposition 1B – Goods Movement Program. This is the last round of funding for this Program with approximately \$267 million remaining for eligible projects and local agency administrative costs. Consistent with CARB's funding targets for each trade corridor and upon execution of grant agreements, SCAQMD expects to receive a total of \$137.9 million. Eligible projects will include heavy-duty diesel trucks, locomotives, ships at berth, cargo handling equipment and transport refrigeration units. CARB requires a Board resolution to enter into grant agreements for the allocated funds. This action is to adopt a resolution accepting terms and conditions for the Proposition 1B – Goods Movement Program grants and authorize the Executive Officer to enter into grant agreements with CARB.

Moved by Buscaino; seconded by Mitchell; unanimously approved.

5. Clean Fuels Draft Plan Update  [Written Report Only]

Every fall, staff has brought the Clean Fuels Program Draft Plan Update before the Technology Committee to solicit input on the proposed distribution of potential project funds for the upcoming year before requesting final approval for the Plan Update each year in early spring. Staff proposes continued support for a wide portfolio of technologies, but with particular emphasis on heavy-duty truck technologies with zero and near-zero emissions for goods movement applications to create a pathway towards achieving 2023 attainment as well as a continued focus on preparing for hydrogen vehicle deployments. This item was presented at the October 16, 2015 Technology Committee as a written report.

Staff presented a summary of the Clean Fuels Draft Plan Update. Mayor Yates suggested lowering the proposed funding allocation for electric and hybrid-electric projects and increasing the funding allocation for hydrogen and natural gas, considering the historically limited support from local electric utilities such as Southern California Edison (SCE). Mayor Pulido suggested that electric drivetrain technology can use hydrogen or natural gas and requested staff to clarify. Staff explained that the proposed increase in electric and hybrid-electric funding

allocation further provides potential leveraging of greenhouse gas reduction funds available for all-electric-range heavy-duty vehicles. Dr. Wallerstein proposed that based on CARB actions on the use of greenhouse gas funds by March 2016, staff will accordingly revise the funding allocation and proposed a 5% increase in electric and hybrid-electric and the remainder in fuel cells and hydrogen. Supervisor Benoit supported the suggestion made by Dr. Wallerstein. Councilmember Mitchell noted a revised commitment from SCE, based on their recent actions.

This is a receive and file item. A copy of the Draft 2016 Plan Update is attached, with revisions relating to the funding allocation for electric and hybrid-electric projects.

6. Other Business

There was no other business.

7. Public Comment Period

There was no public comment.

Next Meeting: November 20, 2015

Attachments

1. Attendance
2. Clean Fuels Program Draft 2016 Plan Update

Attachment 1 – Attendance

Supervisor John J. Benoit (Videoconference).....	SCAQMD Governing Board
Councilmember Joseph Buscaino (Videoconference)	SCAQMD Governing Board
Councilmember Judith Mitchell.....	SCAQMD Governing Board
Mayor Miguel Pulido (Videoconference)	SCAQMD Governing Board
Mayor Dennis Yates	SCAQMD Governing Board
Mark Abramowitz	Board Consultant (Lyou)
Bob Ulloa	Board Consultant (Yates)
Barry Wallerstein, Executive Officer.....	SCAQMD
John Olvera, Principal Deputy District Counsel	SCAQMD
Matt Miyasato, STA	SCAQMD
Fred Minassian, STA.....	SCAQMD
Laki Tisopulos, STA	SCAQMD
Dean Saito, STA.....	SCAQMD
Phil Barroca, STA	SCAQMD
Richard Carlson, STA	SCAQMD
Connie Day, STA	SCAQMD
Lisa Mirisola, STA	SCAQMD
Adewale Oshinuga, STA.....	SCAQMD
Mei Wang, STA	SCAQMD
Vicki White, STA.....	SCAQMD
Robert Paud, IM	SCAQMD
Dominic Tung, IM.....	SCAQMD
Isabel Aguilar, STA.....	SCAQMD
Pat Krayser, STA.....	SCAQMD
Danielle Robinson	CARB
Mark Taylor.....	County of San Bernardino
Jon Leonard	GNA
Graciela Geyer.....	Sierra Club
Noel Muyco	SoCalGas
Susan Stark	Tesoro

Attachment 2

PROPOSAL: Clean Fuels Program Draft 2016 Plan Update 

SYNOPSIS: Every fall, staff has brought the Clean Fuels Program Draft Plan Update before the Board Technology Committee to solicit input on the proposed distribution of potential project funds for the upcoming year before requesting final approval for the Plan Update each year in early spring. Staff proposes continued support for a wide portfolio of technologies, but with particular emphasis on heavy-duty truck technologies with zero and near-zero emissions for goods movement applications to create a pathway towards achieving 2023 attainment as well as a continued focus on preparing for hydrogen vehicle deployments. This item was presented at the October 16, 2015 Technology Committee as a written report.

Background

Each calendar year, as required by legislation, the Clean Fuels Program Plan Update is revised to reflect technical priorities and proposed project areas for the upcoming year. As part of this process, every fall since 2007 staff has brought the Clean Fuels Program Draft Plan Update before the Board as a separate item to solicit input on the proposed distribution of potential project funds before requesting final approval each year in early spring. This has provided an opportunity for the Board to provide initial input, incorporate Board feedback as well as input from advisory groups, technical experts and other stakeholders and finally return in early spring to seek Board approval of the final Plan Update (concurrent with approval of the Annual Report).

For Calendar Year 2016, staff has prepared a Clean Fuels Program Draft 2016 Plan Update which proposes continued support for a wide portfolio of technologies. However, this Draft Update has particular emphasis on heavy-duty truck technologies with zero and near-zero emissions for goods movement applications to create a pathway towards achieving 2023 attainment, as well as a continued focus on preparing for hydrogen vehicle deployments. This emphasis not only aligns well with the SCAQMD's FY 2015-16 Goals and Priority Objectives, which includes continued development and demonstration of zero-emission goods movement technologies, but also begins to lay a pathway towards implementing the Air Quality Management Plan (AQMP) calling for a 65 percent reduction in NO_x emissions by 2031, while leveraging funds from other state programs such as the Greenhouse Gas Reduction Fund Program.

Proposal

The attached Clean Fuels Program Draft Plan Update identifies potential projects to be considered for funding during 2016. The proposed projects reflect promising low-, near-zero and zero-emission technologies and applications that are emerging in different source categories. This update includes a number of proposed projects, not all of which are expected to be funded in the current fiscal year given the available budget. Some of the proposed projects for 2016 include but are not limited to: 1) development and demonstration of drayage trucks with all electric range; 2) medium- and heavy-duty fuel cell truck and bus development; 3) development and demonstration of advanced natural gas engines and zero emission technologies for high horsepower applications 4) further evaluation of biofuels including dimethyl ether; 5) partnering with national and university laboratories on in-use testing;; and 6) lease of fuel cell vehicles (FCVs) for use in Technology Advancement’s demonstration fleet to promote marketability and demand of FCVs. Projects not funded in 2016 may be considered for funding in subsequent years.

In addition to identifying proposed projects to be considered for funding, this Draft Plan Update confirms nine key technical areas of highest priority to the SCAQMD. These high priority areas are listed below based on the proposed funding distribution shown in Figure 1:

- Electric and Hybrid Vehicle Technologies (including charging infrastructure)
- Hydrogen and Fuel Cell Technologies and Infrastructure
- Engine Systems (particularly in the heavy-duty vehicle sector)
- Infrastructure and Deployment (compressed and liquid natural gas)
- Fuels and Emission Studies
- Stationary Clean Fuels Technologies (including renewables)
- Emission Control Technologies
- Health Impacts Studies
- Outreach and Technology Transfer

It should be noted that these priorities represent the areas where SCAQMD funding is thought to have the greatest impact. In keeping with the diverse and flexible “technology portfolio” approach, these priorities may shift during the year to: (1) capture opportunities such as cost-sharing by the state government, the federal government or other entities, or (2) address specific technology issues which affect residents within the SCAQMD’s jurisdiction.

Staff is developing a rating system or “dashboard” to summarize the viability of technologies and proposed solutions using criteria such as environmental and health benefits, economic sustainability and stakeholder support. The proposed rating system will be evaluated by the Board’s Technology Committee, Clean Fuels Advisory Group,

the Technology Advancement Advisory Group and other technical experts and incorporated into the final 2016 Plan Update.

Figure 1 graphically depicts the potential distribution of SCAQMD Clean Fuels funds, based on projected program costs of \$16.4 million for the nine project areas discussed previously. The expected actual project expenditures for 2016 will be less than the total projected program cost since not all projects will materialize. The target allocations are based on balancing technology priorities, technical challenges and opportunities discussed previously, and near-term versus long-term benefits with the constraints on available SCAQMD funding. Specific contract awards throughout 2016 will be based on this proposed allocation, the quality of proposals received and evaluation of projects against standardized criteria, and ultimately, the Board's approval. At that time, additional details will be provided about the technology, its application, the specific scope of work, the project team capabilities, and the project cost-sharing.

These technical priorities will necessarily be balanced by funding availability and the availability of qualified projects. Revenues from several sources support the SCAQMD's Technology Advancement program. The principal revenue source is the Clean Fuels Program, which under H&SC Section 40448.5 and Vehicle Code Section 9250.11 establishes mechanisms to collect revenues from mobile and stationary sources to support the program's objectives, albeit with constraints on the use of the funds. Grants and cost-sharing revenue contracts from various government agencies, such as CARB, CEC, NREL, U.S. EPA and DOE, also support technology advancement efforts and may be approached for cost-sharing.

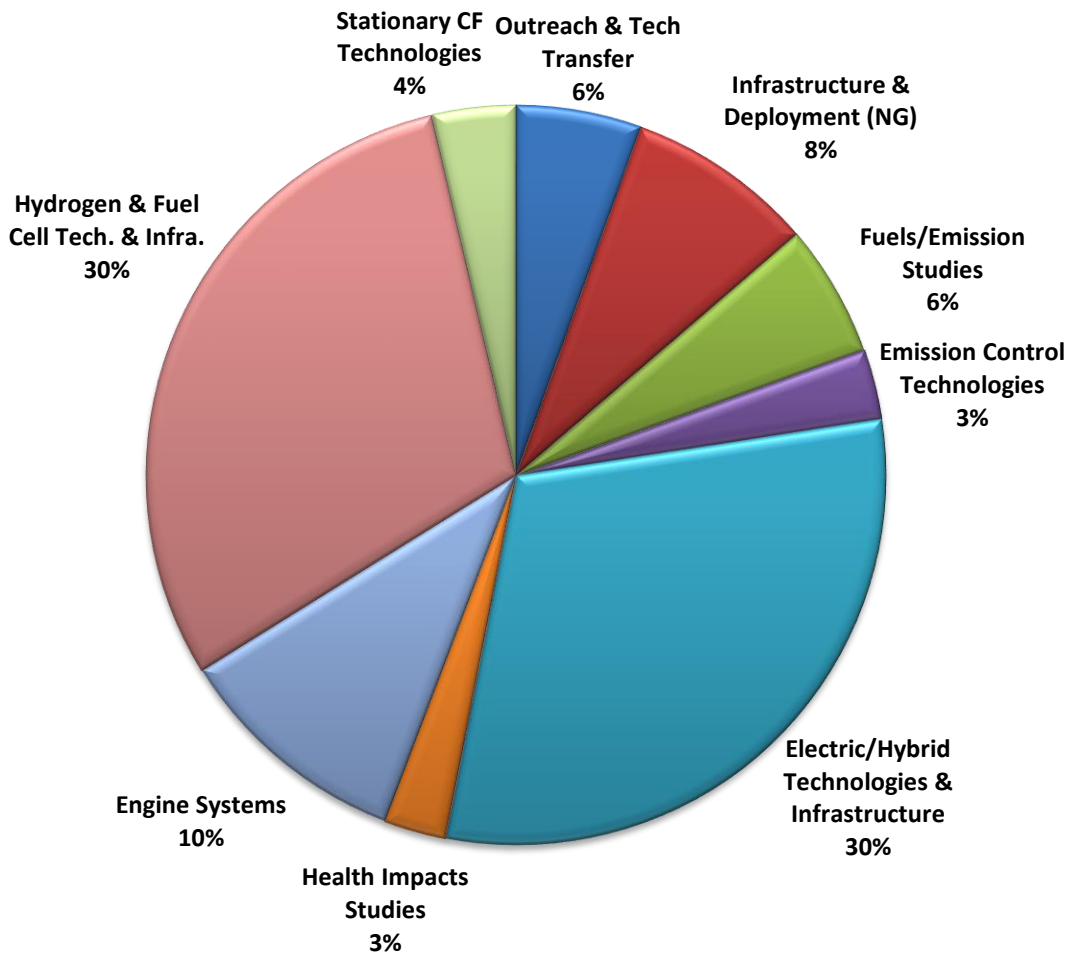


Figure 1: Projected Funding Distribution for Potential Projects in 2016 (\$16.4M)

The proposed update has been the result of a comprehensive planning and review process, which will continue over the next few months as it is further refined before the Board considers adoption in early spring. This process includes consideration of the 2012 AQMP and its control measures along with the white papers and preliminary analysis prepared for the Draft 2016 AQMP, as well as CARB’s recent draft discussion document “Mobile Source Strategy” (October 2015)¹. The proposed update also incorporates coordination activities involving outside organizations including consideration of federal, state and local activities and proposed integrated solutions ranging from the Governor’s Executive Orders and goals on electricity derived from renewable sources, petroleum reduction use in cars and trucks, and reduction of short-lived climate pollutants to CARB’s Sustainable Freight Strategy to AB 32 Scoping Plan updates. As part of this process, staff hosted two advisory group meetings in January 2015 and September 2015 to solicit input from the Clean Fuels Advisory Group, the Technology Advancement Advisory Group and other technical experts. During these

¹ http://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc_dd.pdf

advisory meetings, the participants reviewed current and proposed Technology Advancement projects as well as the proposed funding distribution for the Draft 2016 Plan Update and discussed near-term and long-term technologies as potential projects.

Discussions from the review process and advisory meetings, where appropriate, have been and will continue to be fashioned into project areas and included in this year's Plan Update as it is finalized. Additionally, staff regularly interacts with CARB, CEC, DOE, the California Fuel Cell Partnership, and other entities to solicit and incorporate technical areas for potential leveraged funding. Overall, the Draft Plan attempts to maintain flexibility to address dynamically evolving technologies and incorporate new research and data.

The major areas of focus are proposed in the following areas:

- Electric and hybrid technologies and infrastructure
- Hydrogen and fuel cell technology and infrastructure
- Near-zero emission engine systems
- Infrastructure and deployment

The relative changes in funding allocation are a result of opportunities to partner with other agencies on projects and studies, particularly the Greenhouse Gas Reduction Fund (GGRF) Program, to seek cost-sharing for heavy-duty truck projects. However, the Draft Update also continues a significant focus on hydrogen and fuel cell vehicles and infrastructure to meet the anticipated auto manufacturer roll out of fuel cell vehicles in 2016-2017.

Based on feedback from the Technology Committee, if the GGRF program award for zero-emission drayage trucks is not awarded to the SCAQMD, the proposed allocation in Figure 1 above will be revised to reflect a 25% allocation for Electric and Hybrid Technology and Infrastructure and a 35% allocation to Hydrogen and Fuel Cell Technology and Infrastructure.

There remains an urgency, in light of 2023 ambient air quality standards for ozone, on the need to develop and demonstrate heavy-duty all-electric, fuel cell, plug-in hybrid and hybrid technologies with all-electric range for zero and near-zero emission goods movement applications, including the infrastructure for such technologies.

Notwithstanding, while this Draft Update reflects a modest decrease in anticipated funding for hydrogen and fuel cells in 2016, the emphasis on heavy-duty truck technologies with zero and near-zero emissions for goods movement applications continues to lay a pathway towards achieving 2023 attainment. Emphasis will be maintained on engine system development and demonstration and natural gas infrastructure and deployment to ensure a broad portfolio of technologies and leverage state and federal efforts.

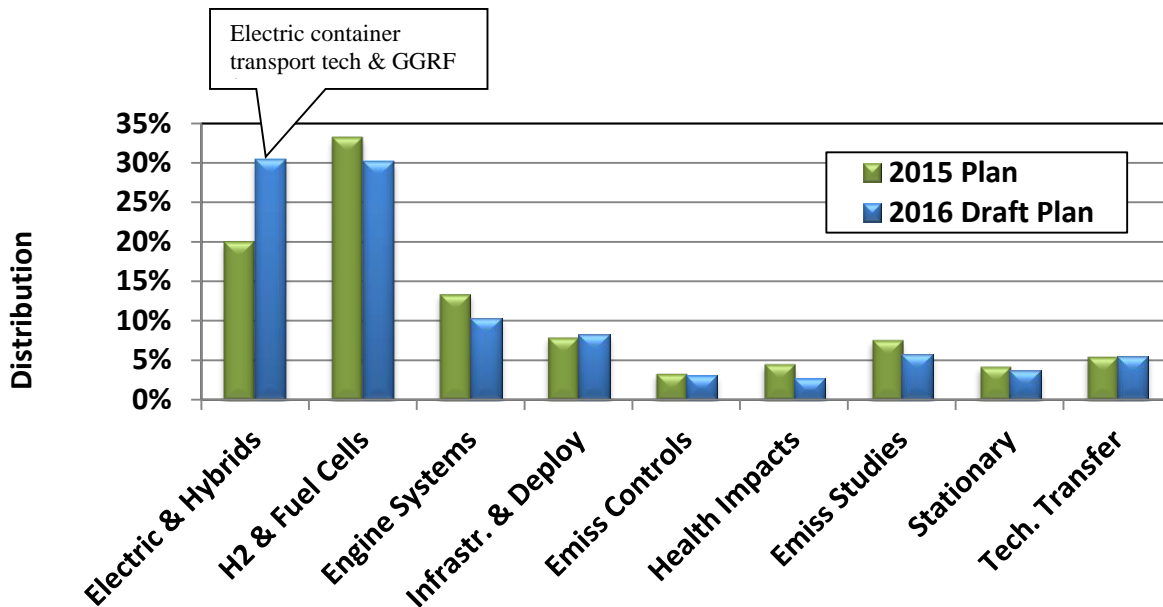


Figure 2: Plan Update Comparison

Based on communications with the organizations specified in H&SC Section 40448.5.1 and review of their programs, the projects proposed in this update do not appear to duplicate any past or present projects. As each individual project is recommended to the Board for funding, staff will continue to coordinate with these organizations to ensure that duplication is avoided and ensure optimal expenditure of Clean Fuels Program funds.

Attachment

Clean Fuels Program Draft 2016 Plan Update

**TECHNOLOGY ADVANCEMENT OFFICE
CLEAN FUELS PROGRAM
DRAFT 2016 PLAN UPDATE**

**South Coast Air Quality Management District
November 2015**

EXECUTIVE SUMMARY

Introduction

The South Coast Air Quality Management District (SCAQMD) is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties. This region, which encompasses all of the South Coast Air Basin plus small portions of the Mojave Desert and Salton Sea Air Basins, historically experiences the worst air quality in the nation due to the natural geographic and atmospheric conditions of the region coupled with the high population density and associated mobile and stationary source emissions. Recognizing this challenge, in 1988 the state established the SCAQMD's Clean Fuels Program (Program), along with the SCAQMD's Technology Advancement Office (TAO). The Clean Fuels Program affords the SCAQMD the ability to fund the development, demonstration and accelerated deployment of clean fuels and transportation technologies.

For over 20 years, using funding received through a \$1 motor vehicle registration fee, the Clean Fuels Program has encouraged, fostered and supported clean fuels and transportation technologies such as hydrogen and fuel cells, natural gas engines and infrastructure, battery electric vehicles, plug-in hybrid electric vehicles and related fueling infrastructure. A key strategy of the Program, which allows significant leveraging of the Clean Fuels funding, is its implementation as a public-private partnership in conjunction with private industry, technology developers, academic institutions, research institutions and government agencies. The SCAQMD Clean Fuels Program has traditionally supported a portfolio of technologies, in different stages of maturity, to provide a continuum of emission reductions and health benefits over time. This approach provides the greatest flexibility and optimizes the region's ability to achieve National Ambient Air Quality Standards (NAAQS).

Health & Safety Code (H&SC) 40448.5.1 requires the SCAQMD to annually prepare, and submit to the Legislative Analyst each year, a Clean Fuels Annual Report and Plan Update. The Clean Fuels Annual Report looks at what the Program accomplished in the prior calendar year (CY) and the Clean Fuels Plan Update looks ahead at proposed expenditures for the next CY, essentially re-calibrating the technical direction of the Program. This document currently comprises the Draft 2016 Plan Update for preliminary review and comment by SCAQMD's Governing Board, advisory groups, technical experts and other interested parties. It will be modified in early 2016 to encompass the 2015 Clean Fuels Annual Report and the final 2016 Plan Update, which are due to the Legislative Analyst by March 1, 2016.

The overall strategy of the SCAQMD's Clean Fuels Program is based in large part on technology needs identified through the Air Quality Management Plan (AQMP) process and the SCAQMD Board's directives to protect the health of residents in Southern California, which encompasses approximately 16.8 million people (nearly half the population of California). The AQMP is the long-term "blueprint" that defines:

- basin-wide emission reductions needed to achieve federal ambient air quality standards;
- regulatory measures to achieve those reductions;
- timeframes to implement these proposed measures; and
- technologies required to meet these future proposed regulations.

The 2012 AQMP identified the need for 200 tons/day oxides of nitrogen (NO_x) reductions to be adopted by 2020 for full implementation by 2023 and in large part focused control measures on transportation technologies and cleaner fuels. These emission reduction needs are further identified in the California Air Resources Board's (CARB's) recent draft discussion document "Mobile Source Strategy" (October

2015)¹. Moreover, the SCAQMD is currently only one of two regions in the nation recognized as an extreme ozone nonattainment area (the other is San Joaquin Valley). Ozone (smog) is created by a chemical reaction between NO_x and volatile organic compound (VOC) emissions at ground level. This is especially noteworthy because the largest contributor to ozone is NO_x emissions, and mobile sources (on- and off-road as well as aircraft and ships) contribute approximately 80 percent of the NO_x emissions in this region. Furthermore, NO_x emissions, along with VOC emissions, also lead to the formation of PM_{2.5} (particulate matter measuring 2.5 microns in size as contained in a cubic meter of air, expressed as micrograms per cubic meter (µg/m³)).

The 2016 AQMP, which is currently under development, will develop integrated strategies and measures to meet the following NAAQS:

- 8-hour Ozone (75 parts per billion or ppb) by 2032
- Annual PM_{2.5} (12 µg/m³) by 2021-2015
- 8-hour Ozone (80 ppb) by 2024 (updated from the 2007 and 2012 AQMPs)
- 1-hour Ozone (120 ppb) by 2023 (updated from the 2012 AQMP)
- 24-hour PM_{2.5} (35 µg/m³) by 2019 (updated from the 2012 AQMP)

The daunting challenge to reduce NO_x and PM_{2.5} requires the Clean Fuels Program to encourage and accelerate advancement of transformative fuel and transportation technologies, leading the way for commercialization of progressively lower-emitting fuels and vehicles. It is projected that a 65% reduction in NO_x is required to meet upcoming ozone standard deadlines. Given the relationship between NO_x, ozone and PM_{2.5}, the 2016 Plan Update must emphasize emission reductions in all these areas. However, the confluence of federal, state and local planning efforts on climate change, greenhouse gases (GHGs), air quality and other environmental areas should provide co-benefits that may help the region.

A few years ago, it became clear that the effect of containers through the Ports of Los Angeles and Long Beach and the subsequent movement of goods throughout the region not only have a dramatic impact on air quality but also the quality of life to the communities along the major goods movement corridors. In recognition of these impacts, the SCAQMD initiated a concerted effort to develop and demonstrate zero and near-zero emissions goods movement technologies, such as electric trucks, plug-in hybrid trucks with all-electric range, zero emission container transport technologies, trucks operating from wayside power including catenary technology and heavy-duty technologies. The prioritization of these types of projects is emphasized in this Draft 2016 Plan Update.

In the future years, the AQMP and this Plan will also consider the recently adopted lower national ambient air quality 8-hour ozone standard of 70 ppb, creating a greater need for implementation of zero-emission technologies in a broad range of sectors.

2016 Plan Update

Every year TAO staff re-evaluates the Clean Fuels Program to craft a Plan Update which essentially serves to re-calibrate the compass. The Program continually seeks to support the deployment of lower-emitting technologies. The design and implementation of the Program Plan must balance the needs in the various technology sectors with technology readiness, emissions reduction potential and co-funding opportunity. As the state and federal governments have turned a great deal of their attention to climate change, the SCAQMD has remained committed to developing, demonstrating and commercializing zero and near-zero emission technologies. Fortunately many, if not the majority, of technology sectors that address our need for NO_x reductions also garner greenhouse gas (GHG) reductions. Due to these

¹ http://www.arb.ca.gov/planning/sip/2016sip/2016mobsrc_dd.pdf

“co-benefits,” the SCAQMD has been successful in partnering with the state and federal government, which as noted allows the Clean Fuels Program to leverage its funding and achieve more for less.

To identify project or technology opportunities in which its available funding can make a significant difference in deploying progressively cleaner technologies in the Basin, the SCAQMD employs a number of outreach and networking activities. These activities range from intimate involvement with state and federal collaboratives, partnerships and industrial coalitions to issuing Program Opportunity Notices to essentially throw out a wide net to solicit project ideas and concepts and Requests for Information to determine the state of various technologies and what is needed to advance those technologies.

The overall strategy is based in large part on technology needs 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.

The Plan Update includes projects to develop, demonstrate and commercialize a variety of technologies, from near term to long term, that are intended to provide solutions to the emission control needs identified in the 2012 AQMP and white papers prepared for the Draft 2016 AQMP. Preliminary 2016 AQMP analysis indicates that a 50 percent reduction in NO_x is required by 2023 with an additional 15 percent NO_x reduction beyond 2023 levels by 2031. Given the need for these significant reductions over the next 8-16 year timeframe, mid- and longer-term alternative fuels, hybrid, electric and fuel cell based technologies are emphasized. Several of the technology areas of focus include:

- reducing emissions from port-related activities, such as cargo handling equipment and container movement technologies, including demonstration and deployment of zero emission cargo container movement systems;
- mitigating criteria pollutant increases from renewable fuels, such as low-blend ethanol and high-blend biodiesel;
- increased activities in electric, hybrid, battery and plug-in hybrid technologies across light-, medium- and heavy-duty platforms; and
- production of transportation fuels and energy from renewable biowaste sources.

Table 1 lists the potential projects across the nine core technologies identified in this report. Potential projects for 2016 total \$16.4 million, with anticipated leveraging of more than \$3 for every \$1 of Clean Fuels funding for total project costs of more than \$66 million. The proposed projects may also be funded by revenue sources other than the Clean Fuels Program, especially VOC and incentive projects.

CLEAN FUELS PROGRAM 2016 PLAN UPDATE

The Clean Fuels Program (Program) was first created in 1988, along with the SCAQMD's Technology Advancement Office (TAO). Funding for the Program is received through a \$1 motor vehicle registration fee. The Clean Fuels Program continually seeks to support the development and deployment of zero and near-zero emission technologies over a broad array of applications and spanning near- and long-term implementation. Planning has been and remains an ongoing activity for the Program, which must remain flexible to address evolving technologies as well as the latest progress in the state-of-technologies, new research areas and data.

Every year the SCAQMD re-evaluates the Clean Fuels Program based on the region's ongoing need for emissions reductions and develops a Plan Update for the upcoming calendar year (CY) targeting near-term projects to help achieve those reductions.

Overall Strategy

The overall strategy of the SCAQMD's Clean Fuels Program is based primarily on technology needs identified through the AQMP process and the SCAQMD Board's directives to protect the health of residents in Southern California, which encompasses approximately 16.8 million people (nearly half the population of California). The AQMP is the long-term "blueprint" that defines:

- basin-wide emission reductions needed to achieve federal ambient air quality standards;
- regulatory measures to achieve those reductions;
- timeframes to implement these proposed measures; and
- technologies required to meet these future proposed regulations.

The 2012 AQMP identified the need for 200 tons/day oxides of nitrogen (NO_x) reductions to be adopted by 2020 for full implementation by 2023 and in large part focuses control measures on transportation technologies and cleaner fuels. These emission reduction needs are further identified in CARB's recent draft discussion document "Mobile Source Strategy" (October 2015). Moreover, the SCAQMD is currently only one of two regions in the nation recognized as an extreme ozone nonattainment area (the other is San Joaquin Valley). Ozone (smog) is created by a chemical reaction between NO_x and VOCs emissions at ground level. This is especially noteworthy because the largest contributor to ozone is NO_x emissions, and mobile sources (on- and off-road as well as aircraft and ships) contribute to more than three-fourths of the NO_x emissions in this region. Furthermore, NO_x and VOC emissions also lead to the formation of PM_{2.5}, particulate matter measuring 2.5 microns in size as contained in a cubic meter of air, expressed as micrograms per cubic meter (µg/m³).

The 2016 AQMP, which is currently under development, will develop integrated strategies and measures to meet the following NAAQS:

- 8-hour Ozone (75 parts per billion or ppb) by 2032
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- 24-hour PM_{2.5} (35 µg/m³) by 2019 (updated from the 2012 AQMP)

The daunting challenge to reduce NO_x and PM_{2.5} require the Clean Fuels Program to encourage and accelerate advancement of transformative fuel and transportation technologies, leading the way for

commercialization of progressively lower-emitting fuels and vehicles. It is projected that a 65% reduction in NO_x is required. The NO_x and VOC emission sources of greatest concern to this region are heavy-duty on-road and off-road vehicles as well as to a lesser extent light- and medium-duty on-road vehicles. To underscore this concern, the 2013 Vehicle Technologies Market Report², released in early 2014 by the Oak Ridge National Laboratory for the Department of Energy, and corroborated by EMFAC 2011 projections, notes that Class 8 trucks comprise 41% of the medium- and heavy-duty truck fleet but consume 78% of the fuel use in this sector. This is especially significant since the report also notes that Class 8 truck sales have continued to increase significantly since 2009. Given the relationship between NO_x, ozone and PM_{2.5}, the Draft 2016 Plan Update must emphasize emission reductions in all these areas.

A few years ago, it became increasingly clear that the effect of containers being moved through the Ports of Los Angeles and Long Beach and the subsequent movement of goods throughout the region not only have a dramatic impact on air quality but also the quality of life to the communities along the major goods movement corridors. In recognition of these impacts, the SCAQMD initiated a concerted effort to develop and demonstrate zero and near-zero emissions' goods movement technologies, such as electric trucks, plug-in hybrid trucks with all-electric range, zero emission container transport technologies, trucks operating from wayside power including catenary technology and heavy-duty technologies. The preliminary findings from the Multiple Air Toxics Exposure Study (MATES) IV³, which included local scale studies near large sources such as ports and freeways, reinforce the importance of these impacts and the need for transformative transportation technologies, especially near the ports and goods movement corridor.

For over 20 years, a key strategy of the Clean Fuels Program has been its implementation as a public-private partnership in conjunction with private industry, technology developers, academic institutions, research institutions and government agencies. This public-private partnership has allowed the Program to leverage its funding with \$3-\$4 of spending on R&D projects to every \$1 of SCAQMD funds.

As the state and federal governments have turned a great deal of their attention to climate change, the SCAQMD has remained committed to developing, demonstrating and commercializing zero and near-zero emission technologies. Fortunately many, if not the majority, of technology sectors that address our need for NO_x reductions also garner greenhouse gas (GHG) reductions. Due to these "co-benefits," we have been successful in partnering with the state and federal grants.

Funding Scope

This 2016 Plan Update includes projects to develop, demonstrate and commercialize a variety of technologies, from near-term to long-term, that are intended to provide solutions to the emission control measures identified in the 2012 AQMP and in white papers and preliminary analysis prepared for the Draft 2016 AQMP and to address the increasing challenges this region is facing to meet air quality standards, including:

- 1) new and changing federal requirements, such as the recently adopted lower federal 8-hour ozone standard of 70 ppb;
- 2) implementation of new technology measures; and
- 3) continued development of economically sound compliance approaches.

The scope of projects in the Draft 2016 Plan Update also needs to remain sufficiently flexible to address new challenges and proposed methodologies that are identified in the 2012 AQMP and Draft 2016

² <http://cta.ornl.gov/vtmarketreport/index.shtml>

³ <http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv>

AQMP, consider dynamically evolving technologies, and incorporate new research and data. The latter, for example, includes the findings from the MATES IV study, which was undertaken to update the emissions inventory of toxic air contaminants, measure the concentration of ultrafine particles and black carbon (an indicator of diesel particulate emissions), and conduct a regional modeling effort to characterize risk to health across the Basin.

Finally, the co-benefits of technologies should also be considered in light of the increasing call for action by the federal government and California's Governor to reduce carbon and greenhouse gases. These actions include President Obama's Climate Action Plan released in June 2013. But more recently and significantly to this region are Governor Brown's actions including: 1) his Executive Order issued this spring setting a new interim goal to reduce GHGs 40 percent below 1990 levels by 2030, the most ambitious target in North America; 2) his recent remarks outlining goals to reduce black carbon by 50 percent (and methane and hydrofluorocarbons or HFCs by 40 percent) below current levels by 2030; and 3) his state-of-the-state address in January this year which included increasing the amount of electricity generated from renewable sources from 33 to 50 percent as well as reducing the use of petroleum in cars and trucks by up to 50 percent from today's levels. Notably, SB 350 (De León), which is pending signature by the Governor, would have codified the Governor's goals outlined in his January 2015 inaugural address, but was amended to remove the 50 percent reduction of petroleum use in cars and trucks. The bill, if signed into law, will still dramatically reshape California's energy economy, and the Governor has noted his office still has the authority to reduce oil use in vehicles without the bill.

The Clean Air Act, in addition to providing for specific control measures based on known technologies and control methods, has provisions for more general measures based on future, yet-to-be-developed technologies. These "black box" measures are provided under Section 182(e)(5) of the Clean Air Act for regions that are extreme non-attainment areas, such as the South Coast Basin. In the past, some of the technologies that have been developed and demonstrated in the Clean Fuels Program may have served as control measures for the "black box." However, the Draft 2016 AQMP calls for elimination on the reliance of these "black box" (future technologies) to the maximum extent possible.

Within the core technology areas defined later in this section, there exists a range of projects that represent near-term to long-term efforts. The SCAQMD Clean Fuels Program tends to support development, demonstration and technology commercialization efforts, or deployment, rather than fundamental research. The general time-to-product for these efforts, from long-term to near-term, is described below.

- Most technology *development* projects are expected to begin during 2016 with durations of about two years. Additional field demonstrations to gain long-term verification of performance, spanning up to two years, may also be needed prior to commercialization. Certification and ultimate commercialization would be expected to follow. Thus, development projects identified in this plan are expected to result in technologies ready for commercial introduction as soon as 2018. Projects are also proposed that may involve the development of emerging technologies that are considered longer term and, perhaps higher risk, but with significant emission reduction potential. Commercial introduction of such long-term technologies would not be expected until 2020 or later.
- More mature technologies, those ready to begin field *demonstration* in 2016, are expected to result in a commercial product in the 2017-2018 timeframe. Technologies being field demonstrated generally are in the process of being certified. The field demonstrations provide a controlled environment for manufacturers to gain real-world experience and address any end-user issues that may arise prior to the commercial introduction of the technology. Field demonstrations provide real-world evidence of a technology's performance to help allay any concerns by potential early adopters.
- *Deployment* or technology commercialization efforts focus on increasing the utilization of clean technologies in conventional applications. It is often difficult to transition users to a non-traditional technology or fuel, even if such a technology or fuel offers significant societal benefits.

As a result, in addition to government's role to reduce risk by funding technology development and testing, one of government's roles is to support and offset any incremental cost through incentives to help accelerate the transition and use of the cleaner technology. The increased use and proliferation of these cleaner technologies often depends on this initial support and funding as well as efforts intended to increase confidence of stakeholders that these technologies are real, cost-effective in the long term and will remain applicable.

Core Technologies

As previously noted, the SCAQMD Clean Fuels Program maintains flexibility to address dynamically evolving technologies incorporating the latest state-of-the-technology progress. Over the years, the SCAQMD has provided funding for projects for a wide variety of low and zero emission projects. In order to meet the upcoming 2023 8-hour ozone standard, the areas of zero and near-zero emission technologies need to be emphasized. The working definition of "near-zero" is an order of magnitude lower than the existing 0.2 g/bhp-hr NO_x or 0.02 g/bhp-hr NO_x, close to a combined cycle powerplant emissions rate. This effort can be seen in the following sections and in the proposed funding distribution in Figure 1 (page 10). The major core technology areas are identified below with specific project categories discussed in more detail in the following sections. The core technology areas identified reflect the staff's forecast for upcoming projects and needs within the basin but is not intended to be considered a budget.

Not all project categories will be funded due to cost-share constraints, and focus will be on the control measures identified in the 2012 AQMP and potentially the Draft 2016 AQMP, with consideration for availability of suitable projects. The technical areas identified below are clearly appropriate within the context of the current air quality challenges and opportunities for technology advancement. Within these areas there is significant opportunity for SCAQMD to leverage its funds with other funding agencies to expedite the implementation of cleaner alternative technologies in the Basin. A concerted effort is continually made to form private partnerships to leverage Clean Fuels funds. For example, staff anticipates there will be upcoming opportunities to leverage state funding through the California Clean Truck, Bus and Off-Road Vehicle and Equipment Technology Program (created by SB 1204, chaptered in September 2014), which designates money from the state's cap-and-trade program for development, demonstration and early commercialization of zero and near-zero emission truck, bus and off-road vehicles, and the Low Carbon Transportation Greenhouse Gas Emission Reduction Fund, which includes funding for zero-emission drayage trucks and truck and bus pilot projects, especially in disadvantaged communities.

It should be noted, therefore, that these priorities may shift during the year in keeping with the diverse and flexible "technology portfolio" approach. Changes in priority may occur to: (1) capture opportunities such as cost-sharing by the state government, the federal government, or other entities; or (2) address specific technology issues which affect residents within the SCAQMD's jurisdiction.

The following nine core technology areas are listed by current SCAQMD priorities based on the goals for 2016.

Electric/Hybrid Technologies & Infrastructure

If the region hopes to meet the federal standards for PM_{2.5} and ozone, a primary focus must be on zero and near-zero emission technologies. A leading strategy to achieve these goals is the wide-scale implementation of electric drive systems for all applicable technologies. With that in mind, the SCAQMD seeks to support projects to address the main concerns regarding cost, battery lifetime, travel range, charging station infrastructure and manufacturer commitment. Integrated transportation systems can encourage further reduction of emissions by matching the features of electric vehicles (zero emissions, zero start-up emissions, modest range) to typical consumer demands for mobility by linking them to transit. Additionally, the impact of fast charging on battery life and infrastructure costs is still evolving.

The development and deployment of zero emission goods movement systems remains one of the top priorities for the SCAQMD to support a balanced and sustainable growth in the port complex. The SCAQMD continues to work with our regional partners, in particular the Ports of Los Angeles and Long Beach, the Southern California Association of Governments (SCAG) and Los Angeles County Metropolitan Transportation Association (LACMTA) to identify technologies which could be beneficial to and garner support from all stakeholders. Specific technologies include zero emission trucks (using batteries and/or fuel cells), near-zero emission trucks with all-electric range using wayside power (catenary or roadbed electrification) or with plug-in hybrid powertrains, locomotives with near-zero emissions (e.g., 90% below Tier 4), electric locomotives using battery tender cars and catenary, and linear synchronous motors for locomotives and trucks. In fact, last year, the California Cleaner Freight Coalition, in a report entitled *Moving California Forward: Zero and Low-Emissions Freight Pathways*⁴ pointed out that the short distances between freight hubs make electrification a viable option for local freight haul heavy-duty trucks, and in some cases, for on-dock rail which could eliminate some local freight truck trips altogether.

There is a high level of interest from major automobile manufacturers for hybrid-electric technologies in light-, medium- and heavy-duty applications as well as off-road equipment. In particular, there are increasing numbers of diesel- and gasoline-fueled hybrid-electric vehicles and multiple models of light-duty plug-in hybrid and battery electric vehicles (BEVs). Such vehicles offer the benefits of higher fuel economy and range, as well as lower emissions. Hybrid electric technology is not limited to gasoline and diesel engines and can be coupled with natural gas engines (including natural gas engines operating on renewable natural gas), microturbines and fuel cells for further emission benefits. Additionally, continued advancements in the light-duty arena which, while there is commercially available product, is not yet mainstream technology, may have applications for medium- and heavy-duty vehicles. In fact, the goal of SB 1275 (de León), chaptered in September 2014 establishing the Charge Ahead California Initiative, is to bring one million zero and near-zero emission electric vehicles to California by 2023 as well as to ensure that disproportionately impacted communities benefit from this transition toward cleaner transportation.

Opportunities to develop and demonstrate technologies that could enable expedited widespread use of electric and hybrid-electric vehicles in the Basin include the following:

- development and demonstration of hybrid and electric technologies for goods movement, e.g., series hybrids with all electric range or plug-in hybrid powertrains and trolley trucks on catenary wayside power;
- evaluation and demonstration of light-, medium- and heavy-duty plug-in hybrid electric vehicles;
- development and demonstration of CNG hybrid vehicle;
- demonstration of full performance and niche application battery electric vehicles;
- demonstration of integrated programs that make best use of electric drive vehicles through interconnectivity between fleets of electric vehicles and mass transit, and web-based reservation systems that allow multiple users;
- demonstration of heavy-duty battery electric vehicles;
- demonstration of heavy-duty hybrid vehicles including hydraulic and series hybrid concepts;
- development of streamlined implementation procedures to prepare and accelerate EV market penetration and commercialization; and
- demonstration and installation of EV infrastructure to support the electric and hybrid-electric vehicle fleets currently on the roads or soon entering the market, and to reduce cost, improve convenience and integrate with renewable energy and building demand management strategies (e.g., vehicle-to-grid or vehicle-to-building functionality).

⁴ http://www.ucsusa.org/sites/default/files/legacy/assets/documents/clean_vehicles/Moving-California-Forward-Executive-Summary.pdf

Hydrogen & Fuel Cell Technologies & Infrastructure

The SCAQMD supports hydrogen infrastructure and fuel cell technologies as one option in our technology portfolio and is dedicated to assisting federal and state government programs to deploy fuel cell vehicles (FCVs) by supporting the required refueling infrastructure.

In mid-2014 the California Fuel Cell Partnership (CaFCP), with which the SCAQMD works closely as a participating member to further commercialization of fuels cells for transportation and install the required infrastructure, published the Hydrogen Progress, Priorities and Opportunities (HyPPO)⁵. The HyPPO builds upon CaFCP's 2012 roadmap describing the first network of commercial hydrogen stations in California, which calls for 68 hydrogen fueling stations in cluster communities at specific destinations by 2016. Using \$20 million annual funding established by AB 8, CEC funding awards over the last three years, along with support from SCAQMD, have made significant inroads to creating a growth path to 100 hydrogen stations, the state's current goal for launching a commercially self-sustaining network to support a growing number of fuel cell vehicles to implement the state's ZEV Action Plan. Additional support to encourage renewable hydrogen will be needed. For 2015-2016 the CaFCP is developing a medium-/heavy-duty action plan in coordination with multiple members.

Calendar Years 2015-2017 are a critical timeframe for the introduction of FCVs. In fact, several automakers (e.g., Toyota and Honda) are scheduled to release products in 2015-2016, with Hyundai being the first to already offer a FCV for lease in 2014. Since stations need 18-36 month lead times for permitting, construction and commissioning, plans for stations need to be implemented now. While coordination efforts with the Division of Measurement Standards to establish standardized measurements for hydrogen fueling started in 2014, additional efforts to offer hydrogen for sale to general consumers are still needed. In addition, new business models and funding besides grants for construction need to be explored to enable the station operations to remain solvent during the early years until vehicle numbers ramp up.

Commencing late 2012, the CEC, which based its AB 118 hydrogen funding strategy on CaFCP's roadmap and the University of California, Irvine's Advanced Power and Energy Program, has issued multiple Program Opportunity Notices for hydrogen fuel infrastructure and to date has awarded funding for 48 new hydrogen fueling stations plus operation and maintenance grants for a few of the original older stations. Additionally, the SCAQMD is currently implementing a \$6.7 million CEC grant awarded in 2013 to upgrade and refurbish four of the existing hydrogen fueling stations to ensure legacy stations continue operation as FCVs become available in the market. In 2014 the SCAQMD also received an award of \$300,000 from CEC to implement a plan for hydrogen readiness in early market communities and that effort is currently underway. The SCAQMD will work closely with state agencies to implement these programs and continue efforts to upgrade and refurbish existing hydrogen infrastructure.

The 2016 Plan Update identifies key opportunities while clearly leading the way for pre-commercial demonstrations of original equipment manufacturer (OEM) vehicles. Future projects may include the following:

- continued development and demonstration of distributed hydrogen production and fueling stations, including energy stations with electricity and hydrogen co-production and higher pressure (10,000 psi) hydrogen dispensing;
- development and demonstration of cross-cutting fuel cell applications (e.g. plug-in hybrid fuel cell vehicles);
- development and demonstration of fuel cells in off-road, locomotive and marine applications;
- demonstration of fuel cell vehicles in controlled fleet applications in the Basin; and

⁵ <http://cafcfp.org/sites/default/modules/pubdclnt/pubdclnt.php?file=http://cafcfp.org/sites/files/Roadmap-Progress-Report2014-FINAL.pdf&nid=2560>

- development and implementation of strategies with government and industry to build participation in the hydrogen market including certification and testing of hydrogen as a commercial fuel to create a business case for investing.

Engine Systems

Natural gas engines are experiencing huge market growth due to the low cost of fuel. In order to achieve the emission reductions required for the South Coast Air Basin, the internal combustion engines (ICEs) used in the heavy-duty sector will require emissions of 90% lower than the 2010 standards. Future projects will support the development, demonstration and certification of engines that can achieve these massive emissions reductions using an optimized systems approach. Specifically, these projects are expected to target the following:

- development of ultra-low emissions natural gas engines for heavy-duty vehicles and high horsepower applications;
- continued development and demonstration of alternative fuel medium-duty and heavy-duty engines and vehicles;
- development and demonstration of alternative fuel engines for off-road applications;
- evaluation of alternative engine systems such as opposed piston ICEs and hydraulic plug-in hybrid vehicles; and
- development and demonstration of engine systems that employ advance fuel or alternative fuels, engine design features, improved exhaust or recirculation systems, and aftertreatment devices.

Infrastructure and Deployment (Natural Gas)

The importance of natural gas and related refueling infrastructure cannot be overemphasized for the realization of large deployment of alternative fuel technologies. Significant demonstration and commercialization efforts funded by the Clean Fuels Program as well as other local, state and federal agencies are underway to: 1) support the upgrade and buildup of public and private infrastructure projects, 2) expand the network of public-access and fleet fueling stations based on the population of existing and anticipated vehicles, and 3) put in place infrastructure that will ultimately be needed to accommodate transportation fuels with very low gaseous emissions.

Compressed and liquefied natural gas (CNG and LNG) refueling stations are being positioned to support both public and private fleet applications. Upgrades and expansions are also needed to refurbish or increase capacity for some of the stations installed five or more years ago as well as standardize fueling station design, especially to ensure growth of alternative fuels throughout the South Coast Air Basin and beyond. Funding has been provided at key refueling points for light-, medium- and heavy-duty natural gas vehicle users traveling from the local ports, along I-15 and The Greater Interstate Clean Transportation Corridor (ICTC) Network. If signed into law, SB 350 (De León) would establish a target to double the energy efficiency in electricity and natural gas end uses by 2030.

Active participation in the development of National Fire Protection Association (NFPA) fire and safety codes and standards, evaluation of the cost and economics of the new fuels, public education and training and emergency response capability are just a few areas of the funded efforts that have overcome public resistance to these new technologies. Some of the projects expected to be developed and co-funded for infrastructure development are:

- development and demonstration of renewable natural gas as a vehicle fuel from renewable feedstocks and biowaste;
- development and demonstration of advanced, cost effective methods for manufacturing synthesis gas for conversion to renewable natural gas;
- enhancement of safety and emissions reduction from LNG refueling equipment;
- expansion of fuel infrastructure, fueling stations, and equipment; and

- expansion of infrastructure connected with existing fleets, public transit, and transportation corridors.

Emissions, Fuels and Health Impacts Studies

The monitoring of pollutants in the Basin is extremely important, especially when focused on (1) a particular sector of the emissions inventory (to identify the responsible technology) or (2) exposure to pollution (to assess the potential health risks). Recent studies indicate that smoggy areas can produce irreversible damage to children's lungs. This information highlights the need for further emissions and health studies to identify the emissions from high polluting sectors as well as the health effects resulting from these technologies.

Over the past few years, the SCAQMD has funded emission studies to evaluate the impact of tailpipe emissions of biodiesel and ethanol fueled vehicles mainly focusing on criteria pollutants and greenhouse gas (GHG) emissions. These studies showed that biofuels, especially biodiesel, can contribute to higher NO_x emissions while reducing other criteria pollutant emissions. Furthermore, despite recent advancements in toxicological research related to air pollution, the relationship between particle chemical composition and health effects is still not completely understood, especially for biofuels. Therefore, a couple of years ago the SCAQMD funded studies to investigate the physical and chemical composition and toxicological potential of tailpipe PM emissions from biodiesel and ethanol fueled vehicles to better understand their impact on public health. Studies have continued in 2014 to further investigate the toxicological potential of emissions, such as ultrafine particles and vapor phase substances, and to determine whether or not other substances such as volatile or semi-volatile organic compounds are being emitted in lower mass emissions that could pose harmful health effects.

In recent years, there has also been an increased interest both at the state and national level on the use of alternative fuels including biofuels to reduce petroleum oil dependency, GHG emissions and air pollution. In order to sustain and increase biofuel utilization, it is essential to identify feedstocks that can be processed in a more efficient, cost-effective and sustainable manner. One such fuel that the Clean Fuels Program is interested in pursuing is dimethyl ether (DME). This synthetic fuel can be made from renewable natural gas resources and has characteristics similar to gas-to-liquids fuels, i.e., high cetane, zero aromatics and negligible emissions of particulate matter. Volvo has announced they will commercialize class 8 trucks using DME in 2015, and staff would like to ensure these trucks have lower NO_x than the existing standard. A study in 2015-2016 timeframe on DME is being proposed.

Some areas of focus include:

- demonstration of remote sensing technologies to target different high emission applications and sources;
- studies to identify the health risks associated with ultrafine and ambient particulate matter including their composition to characterize their toxicity and determine specific combustion sources;
- in-use emissions studies using biofuels including DME to evaluate in-use emission composition;
- in-use emissions studies to determine the impact of new technologies, in particular PEVs on local air quality as well as the benefit of telematics on emissions reduction strategies;
- lifecycle energy and emissions analyses to evaluate conventional and alternative fuels; and
- analysis of fleet composition and their associated impacts.

Stationary Clean Fuel Technologies

Although stationary source emissions are small compared to mobile sources in the South Coast Air Basin, there are areas where cleaner fuel technology can be applied to reduce NO_x, VOC and PM emissions. For example, inspections suggest there is a large population of small ICE generators within the Basin that are operating outside their permit limits due to poor maintenance, deliberate tuning for

different performance, operation outside equipment design or changes in fuel quality. Cleaner, more robust distributed generation technologies exist that could be applied to not only improve air quality, but enhance power quality and reduce electricity distribution congestion.

The use of renewable feedstocks for energy production is a viable and necessary strategy to provide sustainable power for future needs while reducing greenhouse gas emissions and achieving domestic energy diversity. One of the projects that the SCAQMD recently supported in this effort was a bench scale demonstration project using a steam hydrogasification process to produce natural gas from biomass and biosolid (sewage sludge) feedstocks. Steam Hydrogasification Reaction (SHR) has been developed to produce various forms of energy products from carbonaceous resources. SHR is capable of handling wet feedstocks like sludge, does not require expensive oxygen plants and has been demonstrated to be most efficient and cost-effective compared to other conventional gasification technologies. This project successfully demonstrated that the SHR process coupled with a water-gas shift (WGS) reactor can produce natural gas containing up to 90% methane.

Additionally, alternative energy storage could be achieved through vehicle to grid or vehicle to building technologies. The University of California Riverside's Sustainable Integrated Grid Initiative, funded in part by the SCAQMD and launched in 2014, for example could assist in the evaluation of these technologies. Projects conducted under this category may include:

- development and demonstration of reliable, low emission stationary technologies (e.g., low NO_x burners, fuel cells or microturbines);
- exploration of renewables as a source for cleaner stationary technologies;
- evaluation, development and demonstration of advanced control technologies for stationary sources; and
- vehicle-to-grid or vehicle-to-building demonstration projects to develop sustainable, low emission energy storage alternatives

Emission Control Technologies

Although engine technology and engine systems research is required to reduce the emissions at the combustion source, post-combustion cleanup methods are also needed to address the current installed base of on-road and off-road technologies. Existing diesel emissions can be greatly reduced with aftertreatment controls such as particulate matter (PM) traps and catalysts, as well as lowering the sulfur content or using additives with diesel fuel. Gas-to-Liquid (GTL) fuels, formed from natural gas or other hydrocarbons rather than petroleum feedstock and emulsified diesel, provide low emission fuels for use in diesel engines. As emissions from engines become lower and lower, the lubricant contributions to VOC and PM emissions become increasingly important. The most promising of these technologies will be considered for funding, specifically:

- evaluation and demonstration of new emerging liquid fuels, including alternative and renewable diesel and GTL fuels;
- development and demonstration of advanced aftertreatment technologies for mobile applications (including diesel particulate traps and selective catalytic reduction catalysts);
- development and demonstration of low-VOC and PM lubricants for diesel and natural gas engines; and

Outreach and Technology Transfer

Since the value of the Clean Fuels Program depends on the deployment and adoption of the demonstrated technologies, outreach and technology transfer efforts are essential to its success. This core area encompasses assessment of advanced technologies, including retaining outside technical assistance as needed, efforts to expedite the implementation of low emission and clean fuels technologies, coordination of these activities with other organizations and information dissemination

to educate the end user. Technology transfer efforts include support for various clean fuel vehicle incentive programs as well.

Target Allocations to Core Technology Areas

Figure 1 below presents the potential allocation of available funding, based on SCAQMD projected program costs of \$16.4 million for all potential projects. The expected actual project expenditures for 2016 will be less than the total SCAQMD projected program cost since not all projects will materialize. The target allocations are based on balancing technology priorities, technical challenges and opportunities discussed previously and near-term versus long-term benefits with the constraints on available SCAQMD funding. Specific contract awards throughout 2016 will be based on this proposed allocation, the quality of proposals received and evaluation of projects against standardized criteria and ultimately SCAQMD Governing Board approval.

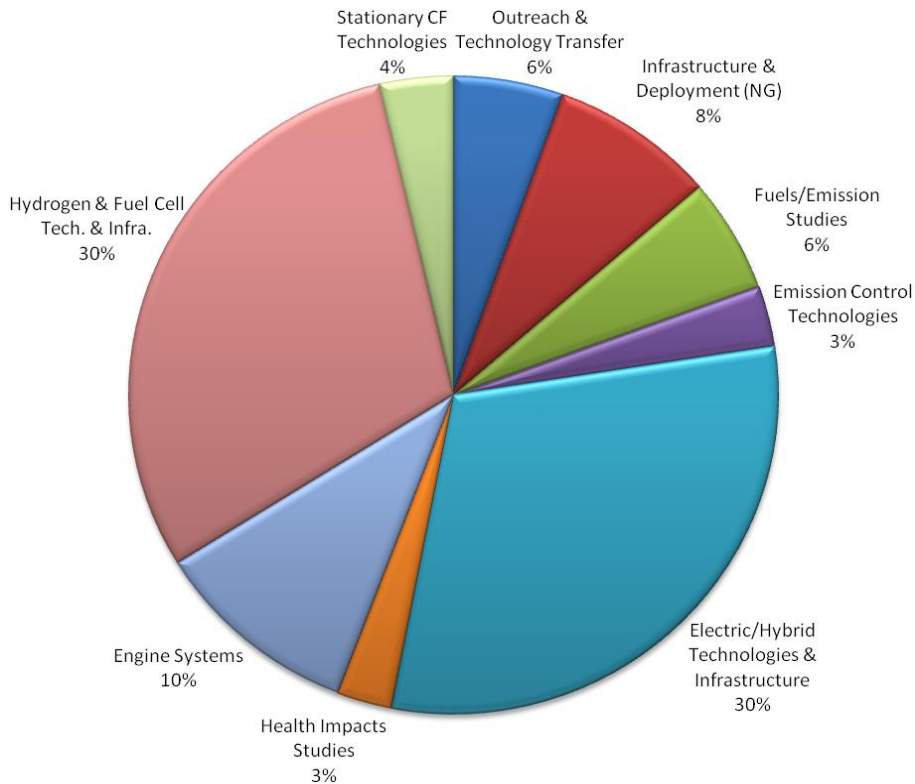


Figure 1: Projected Cost Distribution for Potential SCAQMD Projects in 2016 (\$16.4M)

PROGRAM PLAN UPDATE FOR 2016

This section presents the Clean Fuels Program Plan Update for 2016. The proposed projects are organized by program areas and described in further detail, consistent with the SCAQMD budget, priorities and the best available information on the state-of-the-technology. Although not required, this Plan also includes proposed projects that may be funded by revenue sources other than the Clean Fuels Program, specifically related to VOC and incentive projects.

Table 1 summarizes potential projects for 2016 as well as the distribution of SCAQMD costs in some areas as compared to 2015. The funding allocation continues the focus toward development and demonstration of zero and near-zero emission technologies including the infrastructure for such technologies. For the Draft 2016 Plan, the SCAQMD returns to an emphasis on electric and hybrid-electric technologies in order to take advantage of funding opportunities afforded by the Greenhouse Gas Reduction Fund Program and the need to continue electrifying goods movement technologies. Focus will continue concurrently on hydrogen and fuel cells given sustained activities by federal and state government and the anticipated roll out of fuel cell vehicles in 2016-2017. A small funding shift to Infrastructure and Deployment is also recommended, with modest decreases in other areas given awards over the last year or two. As in prior years, the funding allocations again align well with the SCAQMD's FY 2015-16 Goals and Priority Objectives. Overall, the Program is designed to ensure a broad portfolio of technologies and leverage state and federal efforts.

Each of the proposed projects described in this Plan, once fully developed, will be presented to the SCAQMD Governing Board for approval prior to contract initiation. This development reflects the maturity of the proposed technology, identification of contractors to perform the projects, host site participation, securing sufficient cost-sharing to complete the project and other necessary factors. Recommendations to the SCAQMD Governing Board will include descriptions of the technology to be demonstrated and in what application, the proposed scope of work of the project and the capabilities of the selected contractor and project team, in addition to the expected costs and expected benefits of the projects as required by H&SC 40448.5.1.(a)(1). Based on communications with all of the organizations specified in H&SC 40448.5.1.(a)(2) and review of their programs, the projects proposed in this Plan do not appear to duplicate any past or present projects.

Funding Summary of Potential Projects

The remainder of this section contains the following information for each of the potential projects summarized in Table 1 (page 13).

Proposed Project: A descriptive title and a designation for future reference.

Expected SCAQMD Cost: The estimated proposed SCAQMD cost share as required by H&SC 40448.5.1.(a)(1).

Expected Total Cost: The estimated total project cost including the SCAQMD cost share and the cost share of outside organizations expected to be required to complete the proposed project. This is an indication of how much SCAQMD public funds are leveraged through its cooperative efforts.

Description of Technology and Application: A brief summary of the proposed technology to be developed and demonstrated, including the expected vehicles, equipment, fuels, or processes that could benefit.

Potential Air Quality Benefits: A brief discussion of the expected benefits of the proposed project, including the expected contribution towards meeting the goals of the AQMP, as required by H&SC 40448.5.1.(a)(1). In general, the most important benefits of any technology research, development and demonstration program are not necessarily realized in the near term. Demonstration projects are

generally intended to be proof-of-concept for an advanced technology in a real-world application. While emission benefits, for example, will be achieved from the demonstration, the true benefits will be seen over a longer term, as a successfully demonstrated technology is eventually commercialized and implemented on a wide scale.

Table 1: Summary of Potential Projects for 2016

Proposed Project	Expected SCAQMD Cost \$	Expected Total Cost \$
Electric/Hybrid Technologies & Infrastructure		
Demonstrate Light-Duty Plug-In Hybrid & Battery Electric Vehicles and Infrastructure	700,000	1,500,000
Develop and Demonstrate Medium- and Heavy-Duty Hybrid Vehicles and Infrastructure	2,000,000	6,000,000
Demonstrate Alternative Energy Storage	300,000	2,000,000
Develop and Demonstrate Electric Container Transport Technologies	2,000,000	6,000,000
Subtotal	\$5,000,000	\$15,500,000
Hydrogen and Fuel Cell Technologies and Infrastructure		
Develop and Demonstrate Operation and Maintenance Business Case Strategies for Hydrogen Stations	350,000	4,000,000
Develop and Demonstrate Distributed Hydrogen Production and Fueling Stations	1,500,000	5,000,000
Develop and Demonstrate Medium- and Heavy-Duty Fuel Cell Vehicles	3,000,000	10,000,000
Demonstrate Light-Duty Fuel Cell Vehicles	100,000	100,000
Subtotal	\$4,950,000	\$19,100,000
Engine Systems		
Develop and Demonstrate Advanced Alternative Fuel Medium- and Heavy-Duty Engines and Vehicles	1,500,000	3,000,000
Develop and Demonstrate Alternative Fuel and Clean Conventional Fueled Light-Duty Vehicles	200,000	1,500,000
Subtotal	\$1,700,000	\$4,500,000
Infrastructure and Deployment (NG)		
Deploy Natural Gas Vehicles in Various Applications	500,000	2,000,000
Develop, Maintain & Expand Natural Gas Infrastructure	350,000	2,000,000
Demonstrate Natural Gas Manufacturing and Distribution Technologies Including Renewables	500,000	7,000,000
Subtotal	\$1,350,000	\$11,000,000
Fuels/Emission Studies		
In-Use Emissions Studies for Advanced Technology Vehicle Demonstrations	300,000	800,000
Conduct Emissions Studies on Biofuels and Alternative Fuels	400,000	1,000,000

Table 1: Summary of Potential Projects for 2016 (cont'd)

Proposed Project	Expected SCAQMD Cost \$	Expected Total Cost \$
Fuels/Emission Studies (cont'd)		
Identify and Demonstrate In-Use Fleet Emissions Reduction Technologies & Opportunities	250,000	2,000,000
Subtotal	\$950,000	\$3,800,000
Stationary Clean Fuel Technologies		
Develop and Demonstrate Reliable, Low Emission Monitoring Systems and Test Methods	150,000	500,000
Develop and Demonstrate Clean Stationary Technologies	250,000	750,000
Develop and Demonstrate Renewables-Based Energy Generation Alternatives	200,000	1,000,000
Subtotal	\$600,000	\$2,250,000
Emission Control Technologies		
Develop and Demonstrate Advanced Aftertreatment Technologies	300,000	5,000,000
Demonstrate On-Road Technologies in Off-Road and Retrofit Applications	250,000	1,000,000
Subtotal	\$550,000	\$6,000,000
Health Impacts Studies		
Evaluate Ultrafine Particle Health Effects	150,000	2,000,000
Conduct Monitoring to Assess Environmental Impacts	150,000	500,000
Assess Sources and Health Impacts of Particulate Matter	150,000	300,000
Subtotal	\$450,000	\$2,800,000
Outreach and Technology Transfer		
Assessment and Technical Support of Advanced Technologies and Information Dissemination	500,000	800,000
Support for Implementation of Various Clean Fuels Vehicle Incentive Programs	400,000	400,000
Subtotal	\$900,000	\$1,200,000
TOTALS FOR POTENTIAL PROJECTS	\$16,400,000	\$66,150,000

Technical Summaries of Potential Projects

Electric/Hybrid Technologies & Infrastructure

Proposed Project: Demonstrate Light-Duty Plug-In Hybrid & Battery Electric Vehicles and Infrastructure

Expected SCAQMD Cost: \$700,000

Expected Total Cost: \$1,500,000

Description of Technology and Application:

All of the major automobile manufacturers are currently developing and commercializing hybrid-electric vehicles, which now come in a variety of fuel economy and performance options. These commercial hybrid EVs integrate a smaller internal combustion engine, battery pack and electric drive motors to improve fuel economy (e.g., Chevy Volt) or performance (e.g., Lexus RX400h).

The SCAQMD has long supported the concept of using increased battery power to allow a portion of the driving cycle to occur in all-electric mode for true zero emission miles. This battery dominant strategy is accomplished by incorporating an advanced battery pack initially recharged from the household grid or EV chargers. This “plug-in” hybrid EV strategy allows reduced emissions and improved fuel economy. In 2009, CARB adopted Plug-In Hybrid Electric Vehicle Test Procedure Amendments and Aftermarket Parts Certification and several automobile manufacturers have announced demonstration or early production plans of “blended” plug-in hybrid electric, extended-range electric vehicles (E-rEV), or highway capable battery electric vehicles (BEVs). Electric utilities refer to PHEVs, E-rEVs and BEVs as plug-in electric drive vehicles (PEVs) and are working with automakers to support PEVs. The recent adoption of revised recommended practice SAE J1772 enables passenger vehicles to charge from 110/120V AC (Level 1), 220/240V AC (Level 2), and faster 440/480V DC charging using a common conductive connector in 30 minutes or less in the U.S. and Europe. The impact of fast charging on battery life and infrastructure costs is not well understood and will be evolving as three fast DC systems (SAE combo, CHAdeMO and Tesla) compete for international market share.

Integrated programs can interconnect fleets of electric drive vehicles with mass transit via web-based reservation systems that allow multiple users. These integrated programs can match the features of EVs (zero emissions, zero start-up emissions, short range) to typical consumer demands for mobility in a way that significantly reduces emissions of pollutants and greenhouse gases.

At recent auto shows, automakers have displayed concept plug-in fuel cell vehicles. Development and demonstration of dual fuel, zero emission vehicles could expand the acceptance of battery electric vehicles and accelerate the introduction of fuel cells in vehicle propulsion.

The SCAQMD has long been a leader in promoting early demonstrations of next generation light-duty vehicle propulsion technologies (and fuels). However, given the current and planned market offerings in this category, priorities have shifted. Nevertheless, the SCAQMD will continue to evaluate market offerings and proposed technologies in light-duty vehicles to determine if any future support is required.

This project category is to develop and demonstrate: 1) various PEV architectures; 2) anticipated costs for such architectures; 3) customer interest and preferences for each alternative; 4) prospective commercialization issues and strategies for various alternatives; 5) integration of the technologies into prototype vehicles and fleets; 6) infrastructure (especially in conjunction with the DOE and the Los Angeles Department of Water & Power) to demonstrate the potential clean air benefits of these types of vehicles; 7) support for local government outreach and charging installation permit

streamlining; and 8) evaluation of any new promising light-duty vehicle propulsion technologies or fuels.

Potential Air Quality Benefits:

The 2012 AQMP identifies zero or near-zero emitting vehicles as a key attainment strategy. HEV technologies have the potential to achieve near-zero emissions but with the range of a conventional gasoline-fueled vehicle, a factor expected to enhance consumer acceptance. Given the variety of PEV systems under development, it is critical to determine the true emissions and performance of PEVs. Demonstration of optimized prototypes would enhance the deployment of near-ZEV and ZEV technologies.

Expected benefits include the establishment of criteria for emissions evaluations, performance requirements, customer acceptability of the technology, etc. This will help both regulatory agencies and OEMs to expedite introduction of zero and near-zero emitting vehicles in the South Coast Basin, which is a high priority of the AQMP.

Proposed Project: Develop and Demonstrate Medium- and Heavy-Duty Hybrid Vehicles and Infrastructure

Expected SCAQMD Cost: \$2,000,000

Expected Total Cost: \$6,000,000

Description of Technology and Application:

Hybrid technologies have gained momentum in the light-duty sector with commercial offerings by most all of the automobile manufacturers. Unfortunately, the medium- and heavy-duty platforms are where most emissions reductions are required, especially for the in-use fleet due to low turnover. This project category is to investigate the use of hybrid technologies to achieve similar performance as the conventional fueled counterparts while achieving both reduced emissions and improved fuel economy. Development and validation of emission test procedures is needed, but is complicated due to the low volume and variety of medium- and heavy-duty vehicles.

Platforms to be considered include utility trucks, delivery vans, shuttle buses, transit buses, waste haulers, construction equipment, cranes and other off-road vehicles. Innovations that may be considered for demonstration include: advancements in the auxiliary power unit, either ICE or other heat engine; battery-dominant hybrid systems utilizing off-peak re-charging, with advanced battery technologies such as lithium-ion; and hydraulic energy storage technologies where applicable. Alternative fuels are preferred in these projects, e.g., natural gas, especially from renewable sources, LPG, hydrogen, GTL and hydrogen-natural gas blends, but conventional fuels such as gasoline, clean diesel, or even biodiesel may be considered if the emissions benefits can be demonstrated as equivalent or superior to alternative fuels. Both new designs and retrofit technologies and related charging infrastructure will be considered.

Federal Recovery Act funding combined with state and local support has accelerated the development and demonstration of medium-duty plug-in hybrid electric truck platforms. Analysis of project data and use profiles will help optimize drive systems, target applications for early commercialization and fill gaps in product offerings.

Potential Air Quality Benefits:

The 2012 AQMP identifies zero- or near-zero emitting vehicles as a key attainment strategy. Hybrid technologies have the potential to redirect previously wasted kinetic energy into useable vehicle power. This proposed project category will evaluate various hybrid systems and fuel combinations to identify their performance and emissions benefits. Given the variety of hybrid systems under development, it is critical to determine the true emissions and performance of these prototypes, especially if both emissions and fuel economy advantages are achieved.

Expected benefits include the establishment of criteria for emissions evaluations, performance requirements and customer acceptability of the technology. This will help both regulatory agencies and OEMs to expedite introduction of near-zero emitting vehicles in the South Coast Basin, which is a high priority of the AQMP.

Proposed Project: Demonstrate Alternative Energy Storage

Expected SCAQMD Cost: \$300,000

Expected Total Cost: \$2,000,000

Description of Technology and Application:

The SCAQMD has been involved in the development and demonstration of energy storage systems for electric and hybrid-electric vehicles, mainly Lithium ion chemistry battery packs. Over the past few years, additional technology consisting of nickel sodium chloride, lithium-ion and lithium iron phosphate batteries have shown robust performance. Other technology manufacturers have also developed energy storage devices including flywheels, hydraulic systems and ultracapacitors. Energy storage systems optimized to combine the advantages of ultracapacitors and advanced batteries could yield further benefits. This project category is to apply these advanced storage technologies in vehicle platforms to identify best fit applications, demonstrate their viability (reliability, maintainability and durability), gauge market preparedness and provide a pathway to commercialization.

The long-term objective of this program is to decrease fuel consumption and resulting emissions without any changes in performance compared to conventional vehicles. This program will support several projects for development and demonstration of different types of low emission hybrid vehicles using advanced energy strategies and conventional or alternative fuels. The overall net emissions and fuel consumption of these types of vehicles are expected to be much lower than traditional engine systems. Both new and retrofit technologies will be considered.

Potential Air Quality Benefits:

Certification of low emission vehicles and engines and their integration into the Basin's transportation sector is a high priority under the 2012 AQMP. This program is expected to develop alternative energy storage technologies that could be implemented in medium- and heavy-duty trucks, buses and other applications. Benefits will include proof of concept for the new technologies, diversification of transportation fuels and lower emissions of criteria, toxic pollutants and greenhouse gases.

Proposed Project: Develop and Demonstrate Electric Container Transport Technologies

Expected SCAQMD Cost: \$2,000,000

Expected Total Cost: \$6,000,000

Description of Technology and Application:

Advanced transportation systems can be used to transfer cargo containers from ports to both local and “distant” intermodal facilities, thereby significantly reducing emissions from on-road trucks and locomotives and also reducing traffic congestion in local transportation corridors. Such systems could be stand-alone systems that use magnetic levitation (maglev), linear synchronous motors or linear induction motors on dedicated guideways. A more near-term design could use existing roadways that are electrified with catenary electric lines or linear electric motors to move containers on modified trucks equipped to run on electricity. In both scenarios, containers are transported relatively quietly and without direct emissions. The footprints for such systems are similar to conventional rail systems but have reduced impact on adjacent property owners including noise and fugitive dust. These systems can even be built above or adjacent to freeways or on elevated guideways. These container freight systems are not designed to carry any operators on the guideways, where the over-the-roadway system may require the operator to actively control the transport of the containers.

One of the container transportation concepts the SCAQMD is actively pursuing is the eHighway catenary hybrid truck system by Siemens Mobility. Siemens and their partners have developed a catenary system and hybrid electric trucks to utilize the catenary for zero emission transport of containers. The hybrid drive system will extend the operating range of the truck beyond the all-electric range of the catenary system, thus enabling the truck to perform regional drayage operations and bridge gaps in catenary infrastructure as it is deployed on a regional level. The proposed Siemens pantograph system will allow for seamless connection and disconnection from the catenary wires. When entering the catenary system corridor, the pantograph system will verify the presence of catenary lines and allow the driver to raise the pantograph from within the cab of the truck. Upon leaving the catenary system, the pantograph automatically retracts and the truck switches to on-board power systems. The on-board power systems could be a range of technologies, including batteries, fuel cells, or internal combustion engines. In addition, SCAQMD is administering a project to develop and demonstrate zero emission drayage trucks for goods movement operations, consisting of three different battery electric truck technologies and a fuel cell hybrid electric truck platform. This project is funded by a \$4.2 million award from Department of Energy to promote the deployment of zero emission cargo transport technologies. These trucks can be also upfitted to connect to wayside power via a catenary or LSM system in the future.

In addition to these technologies, there are other options for electric container applications such as dual-mode locomotives, hybrid electric technologies with battery storage, a battery tender car, magnetic levitation, fuel cell propulsion systems and other wayside power alternatives. This program will evaluate all available technology options to determine whether their systems can be successfully developed and deployed, financially viable, and reliably operated on a long-term basis.

Potential Air Quality Benefits:

On-road heavy-duty diesel truck travel is an integral part of operations at the ports moving cargo containers into the Basin and beyond. The 2012 AQMP proposes to reduce emissions from this activity by modernizing the fleet and retrofitting NO_x and PM emission controls on older trucks. An alternative approach, especially for local drayage to the nearby intermodal facilities, is to use advanced container transport systems that use electric propulsion for the containers on fixed

guideways or modified trucks able to operate on electricity which will eliminate local diesel truck emissions. The emission benefits have not yet been estimated because the fate of the displaced trucks has not been determined.

Hydrogen and Fuel Cell Technologies & Infrastructure

Proposed Project: Develop and Demonstrate Operation and Maintenance Business Case Strategies for Hydrogen Stations

Expected SCAQMD Cost: \$350,000

Expected Total Cost: \$4,000,000

Description of Technology and Application:

California regulations require automakers to place increasing numbers of zero emission vehicles into service every year. By 2050, CARB projects that 87% of light-duty vehicles on the road will be zero emission battery and fuel cell vehicles with fuel cell electric becoming the dominant powertrain.

In 2013, cash-flow analysis resulting in a Hydrogen Network Investment Plan and fuel cell vehicle development partnership announcements by major automakers enabled the passage of AB 8 which provides \$20 million per year for hydrogen infrastructure cofunding through the CEC. This resulted in limited fuel cell vehicle production announcements by Hyundai, Toyota and Honda for 2014-2015.

In mid-2014 the CaFCP published the *Hydrogen Progress, Priorities and Opportunities* (HyPPO) report, an update of their roadmap describing the first network of commercial hydrogen stations in California.

Additional work in this project category would develop a plan to secure long-term funding to complete the hydrogen fueling network build-out, provide details how funding can be invested, assess alternative revenue streams such as renewable incentives, propose alternative financing structures to leverage/extend CEC funding, and support station operation during the transition to commercial viability.

Potential Air Quality Benefits:

The 2012 AQMP identifies the use of alternative fuels and zero emission transportation technologies as necessary to meet federal air quality standards. One of the major advantages of Fuel Cell vehicles (FCEVs) is the fact that they use hydrogen, a fuel that can be domestically produced from a variety of resources such as natural gas, solar, wind and biomass. The technology and means to produce hydrogen fuel to support FCEVs are available now. The deployment of large numbers of FCEVs, which is an important strategy to attain air quality goals, requires a well planned and robust hydrogen fueling infrastructure. This SCAQMD program with additional funding from other entities will provide the hydrogen fueling infrastructure that is necessary in the South Coast Air Basin. The deployment of FCEVs and the development of the necessary fueling infrastructure will lead to substantial reductions in NO_x, VOC, CO, PM and toxic air contaminants from vehicles.

Proposed Project: Develop and Demonstrate Distributed Hydrogen Production and Fueling Stations

Expected SCAQMD Cost: \$1,500,000

Expected Total Cost: \$5,000,000

Description of Technology and Application:

Alternative fuels, such as hydrogen and the use of advanced technologies, such as fuel cell vehicles, are necessary to meet future clean air standards. A key element in the widespread acceptance and resulting increased use of alternative fuel vehicles is the development of an infrastructure to support the refueling of vehicles, cost-effective production and distribution and clean utilization of these new fuels.

A major challenge to the entry and acceptance of direct-hydrogen fuel cell vehicles is the limited number of hydrogen refueling sites. This program would support the development and demonstration of hydrogen refueling technologies. Proposed projects would address:

- *Fleet and Commercial Refueling Stations:* Further expansion of the hydrogen fueling network based on retail models, providing renewable generation, adoption of standardized measurements for hydrogen refueling, other strategic refueling locations and increased dispensing pressure of 10,000 psi and compatibility with existing CNG stations may be considered.
- *Energy Stations:* Multiple-use energy stations that can produce hydrogen for fuel cell vehicles or for stationary power generation are considered an enabling technology with the potential for costs competitive with large-scale reforming. System efficiency, emissions, hydrogen throughput, hydrogen purity and system economics will be monitored to determine the viability of this strategy for hydrogen fueling infrastructure deployment and as a means to produce power and hydrogen from renewable feedstocks (biomass, digester gas, etc.).

Home Refueling Appliances: Home refueling/recharging is an attractive advancement for alternative clean fuels due to the limited conventional refueling infrastructure. Similar to the natural gas home refueling appliance currently commercially available, this project would evaluate a hydrogen home refueler for cost, compactness, performance, durability, emission characteristics, ease of assembly and disassembly, maintenance and operations. Other issues such as building permits, building code compliance and UL ratings for safety would also be evaluated.

It is estimated that approximately 50,000 fuel cell vehicles will be deployed by 2017 in California and the majority of these vehicles will be in the South Coast Air Basin. To provide fuel for these vehicles, the hydrogen fueling infrastructure needs to be significantly increased. SCAQMD will seek additional funding from CEC and CARB to construct and operate hydrogen fueling stations.

Potential Air Quality Benefits:

The 2012 AQMP identifies the use of alternative clean fuels in mobile sources as a key attainment strategy. Pursuant to AQMP goals, the SCAQMD has in effect several fleet rules that require public and certain private fleets to purchase clean-burning alternative-fueled vehicles when adding or replacing vehicles to their vehicle fleets. Fuel cell vehicles constitute the cleanest alternative-fuel vehicles today. Since hydrogen is a key fuel for fuel cell vehicles, this program would address some of the barriers faced by hydrogen as a fuel and thus assist in accelerating its acceptance and ultimate commercialization. In addition to supporting the immediate deployment of the demonstration fleet, expanding the hydrogen fuel infrastructure should contribute to the market acceptance of fuel cell technologies in the long run, leading to substantial reductions in NO_x, VOC, CO, PM and toxic compound emissions from vehicles.

Proposed Project: Develop and Demonstrate Medium- and Heavy-Duty Fuel Cell Vehicles

Expected SCAQMD Cost: \$3,000,000

Expected Total Cost: \$10,000,000

Description of Technology and Application:

This proposed project would support evaluation including demonstration of promising fuel cell technologies for applications using direct hydrogen with proton exchange membrane (PEM) fuel cell technology. Battery fuel cell hybrids are another potential technology being mentioned by battery experts as a way of reducing costs and enhancing performance of fuel cell vehicles.

The California ZEV Action Plan specifies actions to help deploy an increasing number of zero emission vehicles, including medium- and heavy-duty ZEVs. Fleets are useful demonstration sites because economies of scale exist in central refueling, in training skilled personnel to operate and maintain the vehicles, in the ability to monitor and collect data on vehicle performance and for manufacturer technical and customer support. In some cases, medium- and heavy-duty fuel cell vehicles could leverage the growing network of hydrogen stations, providing an early base load of fuel consumption until the number of passenger vehicles grows. These vehicles could include hybrid-electric vehicles powered by fuel cells and equipped with batteries capable of being charged from the grid and even supplying power to the grid.

In 2012 SCAQMD launched demonstrations of Zero Emission Container Transport (ZECT) technologies. This project included development and demonstration of a fuel cell hybrid electric truck platform. In 2015 staff proposes to launch ZECT II to develop and demonstrate additional fuel cell truck platforms and vehicles.

This category may include projects in the following applications:

- | | |
|---|--|
| <p>On-Road:</p> <ul style="list-style-type: none">• Transit Buses• Shuttle Buses• Medium- & Heavy-Duty Trucks | <p>Off-Road:</p> <ul style="list-style-type: none">• Vehicle Auxiliary Power Units• Construction Equipment• Lawn and Garden Equipment• Cargo Handling Equipment |
|---|--|

Potential Air Quality Benefits:

The 2012 AQMP identifies the need to implement zero emission vehicles. SCAQMD adopted fleet regulations require public and some private fleets within the Basin to acquire alternatively fueled vehicles when making new purchases. In the future, such vehicles could be powered by zero emission fuel cells operating on hydrogen fuel. The proposed projects have the potential to accelerate the commercial viability of fuel cell vehicles. Expected immediate benefits include the establishment of zero- and near-zero emission proof-of-concept vehicles in numerous applications. Over the longer term, the proposed projects could help foster wide-scale implementation of zero emission fuel cell vehicles in the Basin. The proposed projects could also lead to significant fuel economy improvements, manufacturing innovations and the creation of high-tech jobs in Southern California, besides realizing the air quality benefits projected in the AQMP.

Proposed Project: Demonstrate Light-Duty Fuel Cell Vehicles

Expected SCAQMD Cost: \$100,000

Expected Total Cost: \$100,000

Description of Technology and Application:

This proposed project would support the demonstration of limited production and early commercial fuel cell passenger vehicles using gaseous hydrogen with proton exchange membrane (PEM) fuel cell technology. Recent designs of light-duty fuel cell vehicles include hybrid batteries to recapture regenerative braking and improve overall system efficiency.

With the implementation of the California ZEV Action Plan, supplemented by the existing and planned hydrogen refueling stations in the Southern California area, light-duty fuel cell limited-production vehicles are planned for retail deployment in early commercial markets near hydrogen stations by several automakers. Fleets are useful demonstration sites because economies of scale exist in central refueling, in training skilled personnel to operate and maintain the vehicles, in the ability to monitor and collect data on vehicle performance and for manufacturer technical and customer support. SCAQMD has included fuel cell vehicles as part of its demonstration fleet since our first hydrogen station began operation in 2005; strengthening support, education, and outreach regarding fuel cell vehicle technology on an on-going basis. In addition, demonstration vehicles could include hybrid-electric vehicles powered by fuel cells and equipped with larger batteries capable of being charged from the grid and even supplying power to the grid.

Potential Air Quality Benefits:

The 2012 AQMP identifies the need to implement zero emission vehicles. SCAQMD adopted fleet regulations require public and some private fleets within the Basin to acquire alternatively fueled vehicles when making new purchases. In the future, such vehicles could be powered by zero emission fuel cells operating on hydrogen fuel. The proposed projects have the potential to accelerate the commercial viability of fuel cell vehicles. Expected immediate benefits include the deployment of zero- emission vehicles in SCAQMD’s demonstration fleet. Over the longer term, the proposed projects could help foster wide-scale implementation of zero emission fuel cell vehicles in the Basin. The proposed projects could also lead to significant fuel economy improvements, manufacturing innovations and the creation of high-tech jobs in Southern California, besides realizing the air quality benefits projected in the AQMP.

Engine Systems

Proposed Project: Develop and Demonstrate Advanced Alternative Fuel Medium- and Heavy-Duty Engines and Vehicles

Expected SCAQMD Cost: \$1,500,000

Expected Total Cost: \$3,000,000

Description of Technology and Application:

The objective of this proposed program is to support development and certification of near commercial prototype low emission heavy-duty alternative fuel engine technologies and demonstration of these technologies in on-road vehicles. The NO_x emissions target for this program area is 0.02 g/bhp-hr and lower and the PM emissions target is below 0.01 g/bhp-hr. To achieve these targets, an effective emission control strategy must employ advance fuel or alternative fuels, engine design features, improved exhaust or recirculation systems, and aftertreatment devices that are optimized using a system approach. This program is expected to result in several projects, including:

- demonstration of advanced engines in medium- and heavy-duty vehicles and high horsepower applications;
- development of durable and reliable retrofit technologies to convert engines and vehicles from petroleum fuels to alternative fuels; and
- anticipated fuels for these projects include but are not limited to CNG, LNG, LPG, emulsified diesel and GTL fuels. The program proposes to expand field demonstration of these advanced technologies in various vehicle fleets operating with different classes of vehicles.

The use of alternative fuel in heavy-duty trucking applications has been demonstrated in certain local fleets within the Basin. These vehicles typically require 200-300 horsepower engines. Higher horsepower alternative fuel engines are beginning to be introduced. However, vehicle range, lack of experience with alternative fuel engine technologies and limited selection of appropriate alternative fuel engine products have made it difficult for more firms to consider significant use of alternative fuel vehicles. For example, in recent years, several large trucking fleets have expressed interest in using alternative fuels. However, at this time the choice of engines over 350 HP or more is limited. Continued development of cleaner dedicated natural gas or other alternative fuel engines such as natural gas-hydrogen blends over 350 HP would increase availability to end-users and provide additional emission reductions.

Potential Air Quality Benefits:

This program is intended to expedite the commercialization of low emission alternative fuel heavy-duty engine technology in California, both in the Basin and in intrastate operation. The emission reduction benefit of replacing one 4.0 g/bhp-hr heavy-duty engine with a 0.2 g/bhp-hr engine in a vehicle that consumes 10,000 gallons of fuel per year is about 1400 lb/yr of NO_x. Clean alternative fuels, such as natural gas, or natural gas blends with hydrogen can also reduce heavy-duty engine particulate emissions by over 90 percent compared to current diesel technology. This program is expected to lead to increased availability of low emission alternative fuel heavy-duty engines. Fleets can use the engines and vehicles emerging from this program to comply with SCAQMD fleet regulations.

Proposed Project: Develop and Demonstrate Alternative Fuel and Clean Conventional Fueled Light-Duty Vehicles

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$1,500,000

Description of Technology and Application:

Although new conventional fueled vehicles are much cleaner than their predecessors, not all match the lowest emissions standards often achieved by alternative fuel vehicles. This project would assist in the development, demonstration and certification of both alternative-fueled and conventional-fueled vehicles to meet the strictest emissions requirements by the state, e.g., SULEV for light-duty vehicles. The candidate fuels include CNG, LPG, ethanol, GTL, clean diesel, bio-diesel and ultra low-sulfur diesel, and compressed air technologies. The potential vehicle projects may include:

- certification of CNG light-duty sedans and pickup trucks used in fleet services;
- resolution of higher concentration ethanol (E-85) affect on vehicle fueling system (“permeation issue”);
- certification of E85 vehicles to SULEV standards;
- assessment of “clean diesel” vehicles, including hybrids and their ability to attain SULEV standards; and
- assessment of compressed air technologies.

Other fuel and technology combinations may also be considered under this category.

Potential Air Quality Benefits:

The 2012 AQMP identifies the use of alternative clean fuels in mobile sources as a key attainment strategy. Pursuant to AQMP goals, the SCAQMD has in effect several fleet rules that require public and certain private fleets to purchase clean-burning alternative-fueled vehicles when adding or replacing vehicles to their vehicle fleets. This program is expected to lead to increased availability of low emission alternative-and conventional-fueled vehicles for fleets as well as consumer purchase.

Infrastructure and Deployment (NG)

Proposed Project: Deploy Natural Gas Vehicles in Various Applications

Expected SCAQMD Cost: \$500,000

Expected Total Cost: \$2,000,000

Description of Technology and Application:

Natural gas vehicles (NGVs) have been very successful in reducing emissions in the South Coast Air Basin due to the deployment of fleets and heavy-duty vehicles utilizing this clean fuel. In order to maintain the throughput, utility and commercial potential of the natural gas infrastructure and the corresponding clean air benefits, deploying additional models of NGVs in existing applications are needed. This technology category seeks to support the implementation of early-commercial vehicles in a wide variety of applications, such as taxis, law enforcement vehicles, shuttle buses, delivery vans, transit buses, waste haulers, class 8 tractors and off-road equipment such as construction vehicles and yard hostlers.

Potential Air Quality Benefits:

Natural gas vehicles have inherently lower engine criteria pollutant emissions than conventional vehicles, especially in the heavy-duty applications where older diesel engines are being replaced. Incentivizing these vehicles in city fleets, goods movement applications and transit bus routes help to reduce the local emissions and exposure to nearby residents. Natural gas vehicles also can have lower greenhouse gas emissions and increase energy diversity depending on the feedstock and vehicle class. Deployment of additional NGVs is in agreement with SCAQMD's AQMP as well as the state's Alternative Fuels Plan as part of AB 1007 (Pavley).

Proposed Project: Develop, Maintain & Expand Natural Gas Infrastructure

Expected SCAQMD Cost: \$350,000

Expected Total Cost: \$2,000,000

Description of Technology and Application:

This program would support the development, maintenance and expansion of natural gas fueling station technologies and incorporate advancing concepts to increase the overall number of such fueling stations in strategic locations throughout the Basin including the Ports, reduce the cost of natural gas equipment, standardize fueling station design and construction and help with the implementation of SCAQMD's fleet rules. As natural gas fueling equipment begins to age or has been placed in demanding usage, components begin to age and deteriorate. This program offers an incentive to facilities to replace worn-out equipment or to upgrade existing fueling and/or garage and maintenance equipment to offer increased fueling capacity to public agencies, private fleets and school districts.

Potential Air Quality Benefits:

The AQMP identifies the use of alternative clean fuels in mobile sources as a key attainment strategy. NGVs have significantly lower emissions than gasoline vehicles and represent the cleanest internal combustion engine powered vehicles available today. The project has the potential to significantly reduce the installation and operating costs of NGV refueling stations, besides improving the refueling time. While new or improved NGV stations have an indirect emissions reduction benefit, they help facilitate the introduction of low emission, NGVs in private and public fleets in the area, which have a direct emissions reduction benefit. The increased exposure and fleet and consumer acceptance of NGVs would lead to significant and direct reductions in NO_x, VOC, CO, PM and toxic compound emissions from mobile sources. Such increased penetration of NGVs will provide direct emissions reductions of NO_x, VOC, CO, PM and air toxic compounds throughout the Basin.

Proposed Project: Demonstrate Natural Gas Manufacturing and Distribution Technologies Including Renewables

Expected SCAQMD Cost: \$500,000

Expected Total Cost: \$7,000,000

Description of Technology and Application:

Lack of sufficient statewide LNG production results in increased fuel costs and supply constraints. The cost of transporting LNG from production facilities out-of-state increases the fuel cost anywhere from 15 to 20 cents per gallon of LNG and subjects users to the reliability of a single supply source. High capital costs prevent construction of closer, large scale liquefaction facilities. Small-scale, distributed LNG liquefaction systems may provide 25 percent lower capital costs than conventional technology per gallon of LNG produced. Because these smaller plants can be sited near fleet customers, costs for transporting the LNG to end users are much lower than those for remote larger plants. Beyond these cost reductions, the smaller plants offer key benefits of much smaller initial capital investment and wider network of supply than the larger plant model. Renewable feed stocks including landfill gas, green waste and waste gases can be processed to yield LNG or CNG.

Industry and government agree that LNG promises to capture a significant share of the heavy-duty vehicle and engine market. LNG is preferred for long distance trucking as it provides twice the energy per unit volume as CNG. This translates to longer driving ranges and lower-weight vehicle fuel storage.

The main objectives of this project are to investigate, develop and demonstrate:

- commercially viable methods for converting renewable feed stocks into CNG or LNG (e.g., production from biomass);
- economic small-scale natural gas liquefaction technologies;
- utilization of various gaseous feed stocks locally available;
- commercialize incentives for fleets to site, install and use LNG and L/CNG refueling facilities; and
- strategic placement of LNG storage capacity sufficient to provide supply to users in the event of a production outage.

Potential Air Quality Benefits:

The SCAQMD relies on a significant increase in the penetration of zero- and low emission vehicles in the South Coast Basin to attain federal clean air standards by 2014, 2023 and 2032. This project would help develop a number of small-scale liquefaction technologies that can reduce LNG costs to be competitive with diesel fuel. Such advances are expected to lead to greater infrastructure development. This would make LNG fueled heavy-duty vehicles more available to the commercial market leading to direct reductions in NO_x, PM and toxic compound emissions.

Fuels/Emission Studies

Proposed Project: In-Use Emissions Studies for Advanced Technology Vehicle Demonstrations

Expected SCAQMD Cost: \$300,000

Expected Total Cost: \$800,000

Description of Technology and Application:

Hybrid electric, hybrid hydraulic, plug-in electric hybrid and pure EVs will all play a unique role in the future of transportation. Each of these transportation technologies has attributes that could provide unique benefits to different transportation sectors. Identifying the optimal placement of each transportation technology will provide the co-benefits of maximizing the environmental benefit and return on investment for the operator.

The environmental benefit for each technology class will be highly duty-cycle and application specific. Identifying the attributes of a specific application or drive cycle that would take best advantage of a specific transportation technology would speed the adoption and make optimal use of financial resources in the demonstration and deployment of a technology. The adoption rates would be accelerated since the intelligent deployment of a certain technology would ensure that a high percentage of the demonstration vehicles showed positive results. These positive results would spur the adoption of this technology in similar applications, as opposed to negative results derailing the further development or deployment of a certain technology.

The proposed project would conduct a characterization of application specific drive cycles to best match different transportation technologies to specific applications. The potential emissions reductions and fossil fuel displacement for each technology in a specific application would be quantified on a full-cycle basis. This information could be used to develop a theoretical database of potential environmental benefits of different transportation technologies when deployed in specific applications.

Potential Air Quality Benefits:

The development of an emissions reduction database, for various application specific transportation technologies, would assist in the targeted deployment of new transportation technologies. This database coupled with application specific vehicle miles traveled and population data would assist in intelligently deploying advanced technology vehicles to attain the maximum environmental benefit. These two data streams would allow vehicle technologies to be matched to an application that is best suited to the specific technology, as well as selecting applications that are substantial enough to provide a significant environmental benefit. The demonstration of a quantifiable reduction in operating cost through the intelligent deployment of vehicles will also accelerate the commercial adoption of the various technologies. The accelerated adoption of lower emitting vehicles will further assist in attaining SCAQMD's air quality goals.

Proposed Project: Conduct Emissions Studies on Biofuels and Alternative Fuels

Expected SCAQMD Cost: \$400,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

The use of biofuels can be an important strategy to reduce petroleum dependency, air pollution and greenhouse gas emissions. Biofuels are in fact receiving increased attention due to national support and state activities resulting from AB 32, AB 1007 and the Low-Carbon Fuel Standard. It's noteworthy to mention that in 2013 the Low-Carbon Fuel Standard was upheld by the U.S. Court of Appeals for the Ninth Circuit and subsequently in June 2014 opponents were denied further appeal by the Supreme Court. With an anticipated increase in biofuel use, it is the objective of this project to further analyze these fuels to better understand their benefits and impacts not only on greenhouse gases but also on air pollution and associated health effects.

In various diesel engine studies, replacement of petroleum diesel fuel with biodiesel fuel has demonstrated reduced PM, CO and air toxics emissions. Biodiesel also has the potential to reduce greenhouse gas emissions because it can be made from renewable feedstocks, such as soy and canola. However, certain blends of biodiesel have a tendency to increase NO_x emissions, which exacerbates the ozone and PM_{2.5} challenges faced in the Basin. In addition, despite recent advancements in toxicological research in the air pollution field, the relationship between biodiesel particle composition and associated health effects is still not completely understood.

Ethanol is another biofuel that is gaining increased national media and state regulatory attention. CARB has recently amended the reformulated gasoline regulation to further increase the ethanol content to 10% as a means to increase the amount of renewable fuels in the state. It is projected that the state's ethanol use will increase from 900 million gallons in 2007 to 1.5 billion gallons by 2012 as a result. As in the case of biodiesel, ethanol has demonstrated in various emission studies to reduce PM, CO and toxic emissions; however, the relationship between particle composition and associated health effects from the combustion of ethanol is not well understood either.

DME is another fuel which requires evaluation of in-use emissions, especially NO_x, in light of Volvo's announcement that they will commercialize class 8 trucks using DME in 2015. Furthermore, CARB recently proposed a regulation on the commercialization of alternative diesel fuels, including biodiesel and renewable diesel, while noting that biodiesel in older heavy-duty vehicles can increase NO_x and the need for emerging alternative diesel fuels to have clear ground rules for commercialization. The impact of natural gas fuel composition on emissions from heavy-duty trucks and transit buses is also being studied.

In order to address these concerns on potential health effects associated with biofuels, namely biodiesel and ethanol blends, this program will investigate the physical and chemical composition and associated health effects of tailpipe PM emissions from light- to heavy-duty vehicles burning biofuels in order to ensure public health is not adversely impacted by broader use of these fuels. This program also supports future studies to identify mitigation measures to reduce NO_x emissions for biofuels. Additionally, a study of emissions from well-to-wheel for the extraction and use of shale gas might be considered.

Potential Air Quality Benefits:

If biodiesel and biodiesel blends can be demonstrated to reduce air pollutant emissions with the ability to mitigate any NO_x impact, this technology will become a viable strategy to assist in meeting air pollutant standards as well as the goals of AB 32 and the Low-Carbon Fuel Standard. The use of biodiesel is an important effort for a sustainable energy future. Emission studies are critical to understanding the emission benefits and any tradeoffs (NO_x impact) that may result from using this

alternative fuel. With reliable information on the emissions from using biodiesel and biodiesel blends, the SCAQMD can take actions to ensure the use of biodiesel will obtain air pollutant reductions without creating additional NO_x emissions that may exacerbate the Basin's ozone problem.

Proposed Project: Identify and Demonstrate In-Use Fleet Emissions Reduction Technologies and Opportunities

Expected SCAQMD Cost: \$250,000

Expected Total Cost: \$2,000,000

Description of Technology and Application:

New technologies, such as alternative fueled heavy-duty engines, are extremely effective at reducing emissions because they are designed to meet the most stringent emissions standards while maintaining vehicle performance. In addition, many new vehicles are now equipped with telematics enabling motorists to obtain transportation information such as road conditions to avoid excessive idling and track information about the vehicle maintenance needs, repair history, tire pressure and fuel economy. Telematics have been shown to reduce emissions from new vehicles. Unfortunately, the in-use fleet lacks telematic systems--particularly heavy-duty engines in trucks, buses, construction equipment, locomotives, marine vessels and cargo handling equipment--have fairly long working lifetimes (up to 20 years due to remanufacturing in some cases). Even light-duty vehicles routinely have lifetimes exceeding 200,000 miles and 10 years. And it is the in-use fleet, especially the oldest vehicles, which are responsible for the majority of emissions.

This project category is to investigate near-term emissions control technologies which can be economically applied to reduce emissions from the in-use fleet. The first part of the project is to identify and conduct proof-of-concept demonstrations of feasible candidate technologies, such as:

- remote sensing for heavy-duty vehicles;
- annual testing for high mileage vehicles (>100,000 miles);
- replace or upgrade emissions control systems at 100,000 mile intervals;
- on-board emission diagnostics with remote notification;
- low-cost test equipment for monitoring and identifying high emitters;
- test cycle development for different class vehicles (e.g. four wheel drive SUVs);
- electrical auxiliary power unit replacements; and
- development, deployment and demonstration of smart vehicle telematic systems

The second phase of the project is to validate the technology or strategy on a larger demonstration project over a longer period of time.

Potential Air Quality Benefits:

Many of the technologies identified can be applied to light-duty and heavy-duty vehicles to identify and subsequently remedy high-emitting vehicles in the current fleet inventory. Estimates suggest that 5 percent of existing fleets account for up to 80 percent of the emissions. Identification of higher emitting vehicles would assist with demand-side strategies, where higher emitting vehicles have correspondingly higher registration charges.

Stationary Clean Fuel Technologies

Proposed Project: Develop and Demonstrate Reliable, Low Emission Monitoring Systems and Test Methods

Expected SCAQMD Cost: \$150,000

Expected Total Cost: \$500,000

Description of Technology and Application:

Currently, the inability of air/fuel ratio control (AFRC) systems to keep rich-burn engines in compliance contributes significantly to air pollution in the basin. Reliable, low-cost emission monitoring systems are needed for small-to-intermediate size combustion devices, including stationary engines, boilers, heaters, furnaces and ovens that are not large enough to justify a continuous emission monitoring system (CEMS). This class of combustion device is often permitted on the basis of a single demonstration or periodic demonstrations of NO_x and CO emissions meeting SCAQMD rule requirements or a RECLAIM concentration limit. However, SCAQMD-unannounced tests on engines and boilers have found that in many cases NO_x and/or CO levels have increased significantly above levels that have been initially or periodically demonstrated due to equipment malfunction and/or inadequate operator attention. It is suspected that the same may be true of heaters, furnaces and ovens.

Demonstrations of newer technologies in recent years could result in a commercially viable alternative to CEMs that is both reliable and feasible in terms of lower costs. For example, manufacturers of flue gas analyzers have, in recent years, developed low-cost multi-gas analyzers suitable for portable or stack-mounted use. Some preliminary testing of a new type of AFRC, which uses a different type of O₂ sensor known as a wide-band O₂ sensor, is another alternative that can be analyzed. Another technical approach might be to deploy technology utilizing the O₂ signature of a post-catalyst O₂ sensor and additional control concepts being developed by manufacturers. Since an underlying problem has been that engine, catalyst and AFRC manufacturers have developed systems independently, a system being co-developed to perform continuous diagnostics to assist operators in keeping rich-burn engines in compliance is possibly another alternative for demonstration.

Potential Air Quality Benefits:

Stationary engines, boilers, heaters, furnaces and ovens account for approximately 11 percent of total NO_x emissions and about 6 percent of total CO emissions. There has been a long-standing compliance problem with rich-burn IC engines in the basin and evidence indicates that many of these devices are operating with NO_x and/or CO emissions above levels required in their permits. Projects could potentially reduce a significant class of NO_x and CO emissions that are in excess of the assumptions in the AQMP and further enhance SCAQMD's ability to enforce full-time compliance.

Proposed Project: Develop and Demonstrate Clean Stationary Technologies

Expected SCAQMD Cost: \$250,000

Expected Total Cost: \$750,000

Description of Technology and Application:

Stationary sources, including VOC sources such as large printing facilities and furniture manufacturers, have become cleaner and cleaner due to the regulatory requirements for low emissions and the advancements in technology to meet those requirements. Best Available Control Technology (BACT) regulations, however, are only required for new, modified, or relocated sources. This project category is to develop and demonstrate new technologies that can provide emissions reductions in new installations or as retrofit modifications. Possible technology examples include:

- low NO_x technologies (burners and ICEs);
- low-Btu gas technologies (e.g., digester, landfill, or dairy gases);
- alternative fuels and hydrogen blends;
- alternative diesel fuels (emulsified, gas-to-liquids, biodiesel with aftertreatment);
- low emission refinery flares;
- catalytic combustion;
- cost-effective fuel cell and fuel cell hybrid distributed generation;
- fumes-to-fuel technology to replace thermal oxidizers and capture VOC emissions for electricity generation while ensuring no emission of air toxics; and
- boiler optimization design and strategies to improve efficiencies.

Depending on the technology, a proof-of-concept project, demonstration, or pre-commercial deployment would be considered to garner further information on the technology. Issues to investigate include viability (reliability, maintainability and durability) of the technology, cost-effectiveness and operator ease-of-use in order to assess commercialization.

Potential Air Quality Benefits:

The SCAQMD has a substantial number of older, small, stationary source technologies within its jurisdiction. Since these devices are not subject to continuous emissions monitoring system requirements, evidence suggests that these devices may not be operating at their permitted NO_x, CO, hydrocarbon and PM emissions levels. Replacing these devices with cleaner and more reliable technologies or technology/fuel combinations can have dramatic reductions in all of these criteria pollutants. VOC emission reductions may also be achieved at larger stationary VOC sources to achieve the new federal ozone and PM_{2.5} standards.

Proposed Project: Develop and Demonstrate Renewables-Based Energy Generation Alternatives

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

The objective of this proposed program is to support the development and demonstration of clean energy, renewable alternatives in stationary and mobile applications. The technologies to be considered include thermal, photovoltaic and other solar energy technologies; wind energy systems; energy storage and conservation potentially including vehicle to grid or vehicle to building functionalities for alternative energy storage; biomass conversion; and other renewable energy and recycling technologies. Innovative solar technologies, such as solar thermal air conditioning and photovoltaic-integrated roof shingles, are of particular interest. Also, in the agricultural sections of the Basin, wind technologies could potentially be applied to drive large electric motor-driven pumps to replace highly polluting diesel-fired pumps. Besides renewable technologies, electrolyzer technology could be used to generate hydrogen, a clean fuel. Hydrogen, when used in regular engines, can substantially reduce tail-pipe emissions, while in fuel cells the emissions are reduced to zero.

The project is expected to result in pilot-scale production demonstrations, scale-up process design and cost analysis, overall environmental impact analysis and projections for ultimate clean fuel costs and availability. This program is expected to result in several projects addressing technological advancements in these technologies that may improve performance and efficiency, potentially reduce capital and operating costs, enhance the quality of natural gas generated from renewable sources for injection into natural gas pipelines, improve reliability and user friendliness and identify markets that could expedite the implementation of successful technologies.

Potential Air Quality Benefits:

The 2012 AQMP identifies the development and ultimately the implementation of non-polluting power generation. To gain the maximum air quality benefit, polluting fossil fuel-fired electric power generation needs to be replaced with clean renewable energy resources or other advanced zero emission technologies, such as hydrogen fuel cells, particularly in a distributed generation context.

The proposed program is expected to accelerate the implementation of advanced zero emission energy sources. Expected benefits include directly reducing the emissions by the displacement of fossil generation; proof-of-concept and potential viability for such zero emission power generation systems; increased exposure and user acceptance of the new technology; reduced fossil fuel usage; and the potential for increased use, once successfully demonstrated, with resulting emission benefits, through expedited implementation. These technologies would also have a substantial influence in reducing global warming emissions.

Emission Control Technologies

Proposed Project: Develop and Demonstrate Advanced Aftertreatment Technologies

Expected SCAQMD Cost: \$300,000

Expected Total Cost: \$5,000,000

Description of Technology and Application:

There are a number of aftertreatment technologies which have shown substantial emission reductions in diesel engines. These technologies include diesel particulate filters (DPFs), oxidation catalysts, selective catalytic reduction (SCR) systems and NO_x adsorbers. This project category is to develop and demonstrate these aftertreatment technologies alone or in tandem with an alternative fuel to produce the lowest possible PM, ultrafine particles, nanoparticles, NO_x, CO, carbonyl and hydrocarbon emissions in retrofit and new applications. With the increasing focus on zero- and near-zero emission goods movement technologies, this category should examine idle reduction concepts and technologies that can be employed at ports and airports.

Possible projects include advancing the technologies for on-road retrofit applications such as heavy-duty line-haul diesel engines, street sweepers, waste haulers and transit buses. Applications for non-road may include construction equipment, yard hostlers, gantry cranes, locomotives, marine vessels, ground support equipment and other similar industrial applications. Potential fuels to be considered in tandem are low-sulfur diesel, emulsified diesel, biodiesel, gas-to-liquids, hydrogen and natural gas. This project category will also explore the performance, economic feasibility, viability (reliability, maintainability and durability) and ease-of-use to ensure a pathway to commercialization.

Potential Air Quality Benefits:

The transfer of mature emission control technologies, such as DPFs and oxidation catalysts, to the off-road sector is a potentially low-risk endeavor that can have immediate emissions reductions. Further development and demonstration of other technologies, such SCR and NO_x adsorbers, could also have NO_x reductions of up to 90%.

Proposed Project: Demonstrate On-Road Technologies in Off-Road and Retrofit Applications

Expected SCAQMD Cost: \$200,000

Expected Total Cost: \$1,000,000

Description of Technology and Application:

Heavy-duty on-road engines have demonstrated progress in meeting increasingly stringent Federal and state requirements. New heavy-duty engines have progressed from 2 g/bhp-hr NO_x in 2004 to 0.2 g/bhp-hr NO_x in 2010, which is an order of magnitude decrease in just six years. Off-road engines, however, have considerably higher emissions limits depending on the engine size. For example, Tier-3 standards for heavy-duty engines require only 3 g/bhp-hr NO_x. There are apparent opportunities to implement cleaner on-road technologies in off-road applications. There is also an opportunity to replace existing engines in both on-road and off-road applications with the cleanest available technology. Current regulations require a repower (engine exchange) to only meet the same emissions standards as the engine being retired. Unfortunately, this does not take advantage of recently developed clean technologies.

Exhaust gas cleanup strategies, such as SCR, electrostatic precipitators, baghouses and scrubbers, have been used successfully for many years on stationary sources. The exhaust from the combustion source is routed to the cleaning technology, which typically requires a large footprint for implementation. This large footprint has made installation of such technologies on some mobile sources prohibitive. However, in cases where the mobile source is required to idle for long periods of time, it may be more effective to route the emissions from the mobile source to a stationary device to clean the exhaust stream.

Projects in this category will include utilizing proven clean technologies in novel applications, such as:

- demonstrating certified LNG and CNG on-road engines in off-road applications including yard hostlers, switcher locomotives, gantry cranes, waste haulers and construction equipment;
- implementing lower emission engines in repower applications for both on-road and off-road applications; and
- application of stationary best available control technologies, such as SCR, scrubbers, baghouses and electrostatic precipitators, to appropriate on- and off-road applications, such as idling locomotives, marine vessels at dock and heavy-duty line-haul trucks at weigh stations.

Potential Air Quality Benefits:

The transfer of mature emission control technologies, such as certified engines and SCR, to the non-road and retrofit sectors offers high potential for immediate emissions reductions. Further development and demonstration of these technologies will assist in the regulatory efforts which could require such technologies and retrofits.

Health Impacts Studies

Proposed Project: Evaluate Ultrafine Particle Health Effects

Expected SCAQMD Cost: \$150,000

Expected Total Cost: \$2,000,000

Description of Technology and Application:

Reducing diesel exhaust from vehicles has become a high priority in the South Coast Air Basin since CARB identified the particulate phase of diesel exhaust as a surrogate for all of the toxic air contaminant emitted from diesel exhaust. Additionally, recent health studies indicate that the ultrafine portion of particulate matter may be more toxic on a per-mass basis than other fractions. Several technologies have been introduced and others are under development to reduce diesel emissions. These include among others low-sulfur diesel fuel, particulate matter traps and heavy-duty engines operating on alternative fuel such as CNG and LNG. Recent studies have shown that control technologies applied to mobile sources have been effective in reducing the mass of particulates emitted. However, there is also evidence that the number of ultrafine particles on and near roadways has increased, even while the mass of particulates has decreased. To have a better understanding of changes in ultrafine particulate emissions from the application of the new technologies and the health effects of these emissions, an evaluation and comparison of ultrafine particulate matter and the potential impacts on community exposures are necessary.

In this project, measurements and chemical composition of ultrafine particulates will be done, as well as studies conducted to characterize their toxicity. The composition of the particulates can further be used to determine the contribution from specific combustion sources. Additionally, engine or chassis dynamometer testing may be conducted on heavy-duty vehicles to measure, evaluate and compare ultrafine particulate matter, PAH and other relevant toxic emissions from different types of fuels such as CNG, low-sulfur diesel, biofuels and others. This project needs to be closely coordinated with the development of technologies for alternative fuels, aftertreatment and new engines in order to determine the health benefits of such technologies.

Potential Air Quality Benefits:

The AQMP for the South Coast Basin relies on significant penetration of low emission vehicles to attain federal clean air standards. Reduction of particulate emissions from the combustion of diesel and other fuels is a major priority in achieving these standards. This project would help to better understand the nature and amount of ultrafine particulates generated by different types of fuels and advanced control technologies as well as provide information on potential health effects of ultrafine particles. Such an understanding is important to assess the emission reduction potentials and health benefits of these technologies. In turn, this will have a direct effect on the policy and regulatory actions for commercial implementation of alternative fuel vehicles in the Basin.

Proposed Project: Conduct Monitoring to Assess Environmental Impacts

Expected SCAQMD Cost: \$150,000

Expected Total Cost: \$500,000

Description of Technology and Application:

Facilities, buildings, structures, or highways which attract mobile sources of pollution are considered “indirect” sources. Ambient and saturation air monitoring near sources such as ports, airports, rail yards, distribution centers and freeways is important to identify the emissions exposure to the surrounding communities and provide the data to then conduct the health impacts due to these sources. This project category would identify areas of interest and conduct ambient air monitoring, conduct emissions monitoring, analyze the data and assess the potential health impacts from mobile sources. The projects would need to be at least one year in duration in order to properly assess the air quality impacts in the area.

Potential Air Quality Benefits:

The proposed project will assist in the evaluation of adverse public health impacts associated with mobile sources. The information will be useful in (a) determining whether indirect sources have a relatively higher impact on residents living in close proximity; and (b) providing guidance to develop some area-specific control strategies in the future should it be necessary.

Proposed Project: Assess Sources and Health Impacts of Particulate Matter

Expected SCAQMD Cost: \$150,000

Expected Total Cost: \$300,000

Description of Technology and Application:

Previous studies of ambient levels of toxic air contaminants, such as the MATES series of studies, have found that diesel exhaust is the major contributor to health risk from air toxics. Analyses of diesel particulate matter in ambient samples have been based on measurements of elemental carbon. While the bulk of particulate elemental carbon in the South Coast Air Basin is thought to be from combustion of diesel fuels, it is not a unique tracer for diesel exhaust.

The MATES III study collected particulate samples at ten locations in the South Coast Air Basin. Analysis of particulate bound organic compounds was utilized as tracers to estimate levels of ambient diesel particulate matter as well as estimate levels of particulate matter from other major sources. Other major sources that were taken into consideration include automobile exhaust, meat charbroiling, road dust, wood smoke and fuel oil combustion. Analyzing for organic compounds and metals in conjunction with elemental carbon upon collected particulate samples was used to determine contributing sources.

MATES IV was initiated in mid-2012 and includes an air monitoring program, an updated emissions inventory of toxic air contaminants and a regional modeling effort to characterize risk across the Basin. The draft report was released for public review in October 2014. In addition to air toxics, MATES IV also measured ultrafine particle concentrations and black carbon at the monitoring sites as well as near sources such as airports, freeways, rail yards, busy intersections and warehouse operations.

This project category would include other related studies, such as toxicity assessment based on age, source (heavy-duty, light-duty engines) and composition (semi-volatile or non-volatile fractions) to better understand the health effects and potential community exposures.

Potential Air Quality Benefits:

Results of this work will provide a more robust, scientifically sound estimate of ambient levels of diesel particulate matter as well as levels of particulate matter from other significant combustion sources, including gasoline and diesel generated VOCs. This will allow a better estimation of potential exposures to and health effects from toxic air contaminants from diesel exhaust in the South Coast Air Basin. This information in turn can be used to determine the health benefits of promoting clean fuel technologies.

Outreach and Technology Transfer

Proposed Project: Assessment and Technical Support of Advanced Technologies and Information Dissemination

Expected SCAQMD Cost: \$500,000

Expected Total Cost: \$800,000

Description of Project:

This program supports the assessment of clean fuels and advanced technologies, their progress towards commercialization and the dissemination of information on demonstrated technologies. The objective of this program is to expedite the transfer of technology developed as a result of Technology Advancement Office projects to the public domain, industry, regulatory agencies and the scientific community. This program is a fundamental element in the SCAQMD's outreach efforts to expedite the implementation of low emission and clean fuels technologies and to coordinate these activities with other organizations.

This program may include the following:

- technical review and assessment of technologies, projects and proposals;
- support for alternative fuel refueling and infrastructure;
- advanced technology curriculum development, mentoring and outreach to local schools;
- emissions studies and assessments of zero emission alternatives;
- advanced technology vehicle demonstrations;
- preparation of reports, presentations at conferences, improved public relations and public communications of successful demonstrations of clean technologies;
- participation in and coordination of workshops and various meetings;
- support for training programs related to fleet operation, maintenance and refueling of alternative fuel vehicles;
- publication of technical papers, reports and bulletins; and
- production and dissemination of information, including web sites.

These objectives will be achieved by consulting with industry, scientific, health, medical and regulatory experts and co-sponsoring related conferences and organizations, resulting in multiple contracts. In addition, an ongoing outreach campaign will be conducted to encourage decision-makers to voluntarily switch to alternatively fueled vehicles and train operators to purchase, operate and maintain these vehicles and associated infrastructure.

Potential Air Quality Benefits:

SCAQMD adopted fleet regulations requiring public and private fleets within the Basin to acquire alternatively fueled vehicles when making new purchases. Expected benefits of highlighting success stories in the use of advanced alternatively fueled vehicles could potentially expedite the acceptance and commercialization of advanced technologies by operators seeking to comply with the provisions of the recently adopted SCAQMD fleet rules. The resulting future emissions benefits will contribute to the goals of the AQMP.

Proposed Project: Support for Implementation of Various Clean Fuels Vehicle Incentive Programs

Expected SCAQMD Cost: \$400,000

Expected Total Cost: \$400,000

Description of Project:

This program supports the implementation of zero emission vehicle incentive programs, the Carl Moyer incentives program and the school bus incentives program. Implementation support includes application approval, grant allocation, documentation to the CARB, verification of vehicle registration and other support as needed. Information dissemination is critical to successful implementation of a coordinated and comprehensive package of incentives. Outreach will be directed to vehicle dealers, individuals and fleets.

Potential Air Quality Benefits:

As described earlier, the SCAQMD will provide matching funds to implement several key incentives programs to reduce diesel emissions in the Basin. Furthermore, the SCAQMD recently adopted fleet regulations requiring public and private fleets within the Basin to acquire alternatively fueled vehicles when making new purchases. Expected benefits of highlighting zero emission vehicle incentives could potentially expedite the acceptance and commercialization of advanced technologies by operators seeking to comply with the provisions of the recently adopted SCAQMD fleet rules. The resulting future emissions benefits will contribute to the goals of the AQMP. The school bus program and the Carl Moyer incentives program will also reduce large amounts of NO_x and PM emissions in the basin in addition to reducing toxic air contaminants.

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 32

REPORT: Mobile Source Air Pollution Reduction Review Committee

SYNOPSIS: Below is a summary of key issues addressed at the MSRC's meeting on October 15, 2015. The next meeting is scheduled for Thursday, November 19, 2015, at 2:00 p.m., in Conference Room CC8.

RECOMMENDED ACTION:
Receive and file.

Ben Benoit
Alternate SCAQMD Representative on MSRC

MMM:HH:AP

Meeting Minutes Approved

The MSRC unanimously approved the minutes from its August 20, 2015 meeting. Those approved minutes are attached for your information (*Attachment 1*).

Local Government Match Program

As an element of the FYs 2014-16 Work Program, the MSRC allocated \$13,000,000 for the Local Government Match Program. A Program Announcement was developed and released on May 1, 2015. As in the previous Work Program, the Local Government Match Program offers to co-fund qualifying medium- and heavy-duty alternative fuel vehicles, alternative fuel infrastructure projects, electric vehicle charging infrastructure, and regional street sweeping in the Coachella Valley. The bicycle projects category was expanded to include "active transportation" projects, and commercial zero emission riding lawnmowers was added as a new category. In all categories, funding is provided on a dollar-for-dollar match basis, and funding for all eligible entities shall be distributed on a first-come, first-served basis with a geographic minimum per county of \$1.625 million. The Program Announcement includes an open application period commencing June 2, 2015 and closing September 4, 2015. To date, the MSRC has awarded a total of \$7,696,153 to 36 applications. Subsequent to these awards, it has been determined that a portion of one of the previously approved applications, from the City of South Pasadena, was not included during initial funding consideration. The City

was previously awarded \$180,535 to purchase one heavy-duty natural gas vehicle and expand their existing CNG fueling station; the MSRC considered and approved the remainder of the City's application, requesting an additional \$30,000 for the purchase of a second heavy-duty natural gas vehicle. The MSRC also approved 36 additional applications, for a total of 37 awards totaling \$7,218,013 (using \$5,201,697 of the funds originally allocated plus an additional \$2,016,316 previously unallocated) as part of the FYs 2014-16 AB 2766 Discretionary Fund Work Program. These awards will be considered by the SCAQMD Board at its November 6, 2015 meeting.

Programmatic Outreach Services

On September 4, 2015, the SCAQMD Board approved an award to the Better World Group as part of the MSRC's FYs 2014-16 Work Program, in an amount not to exceed \$118,065, to provide programmatic outreach services for the MSRC. Subsequent to the approval, staff discovered that the total cost quote had been inaccurately described to both the MSRC and SCAQMD. The \$118,065 figure was actually the total for labor costs only, and did not include \$1,935 which the Better World Group had quoted for expenses. The MSRC approved a \$1,935 increase in the award amount to correct the contract value to \$120,000. This contract award increase will be considered by the SCAQMD Board at its November 6, 2015 meeting.

Contract Modification Request

The MSRC considered a contract modification request for the City of Desert Hot Springs, Contract #ML08043, which provided \$25,000 for the purchase of 1 CNG heavy-duty vehicle, and approved a 60-month no-cost term extension.

Received and Approved Final Reports

The MSRC received and unanimously approved two final report summaries this month as follows:

1. Sysco Food Services of L.A., Contract #MS12009, which provided \$150,000 to construct a new publicly-accessibly LNG station; and
2. Los Angeles Unified School District, Contract #MS11073, which provided \$175,000 for the expansion of an existing CNG station.

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 October 2015 is attached (*Attachment 2*) for your information.

Attachments

- Attachment 1 – Approved August 20, 2015 Meeting Minutes
- Attachment 2 – October 2015 Contracts Administrator's Report



MOBILE SOURCE AIR POLLUTION REDUCTION REVIEW COMMITTEE
THURSDAY, AUGUST 20, 2015 MEETING MINUTES
21865 Copley Drive, Diamond, Bar, CA 91765- Conference Room CC-8

MEMBERS PRESENT:

(Vice Chair) Larry McCallon, representing SANBAG
Michael Antonovich, representing SCAQMD (via v/c)
Ben Benoit (Alt.), representing SCAQMD
Michele Martinez, representing SCAG
Adam Rush (Alt.), representing Riverside County Transportation Commission
Steve Veres, representing LA County MTA (via v/c)
Erik White, representing California Air Resources Board
Greg Winterbottom, representing OCTA

MEMBERS ABSENT:

(Chair) Greg Pettis, representing RCTC
Dolores Roybal Saltarelli, representing Regional Rideshare Agency (via v/c)

MSRC-TAC MEMBERS PRESENT:

(MSRC-TAC Chair) Gretchen Hardison, representing City of Los Angeles (via v/c)
(MSRC-TAC Vice Chair) Tanya Love, RCTC
Rongsheng Luo (Alt.), representing Southern California Association of Governments
Kelly Lynn, San Bernardino Associated Governments

OTHERS PRESENT:

Earl Elrod, SCAQMD Board Asst (Yates)
Ric Teano, OCTA

SCAQMD STAFF & CONTRACTORS

Ruby Fernandez, Senior Deputy District Counsel
Ray Gorski, MSRC Technical Advisor-Contractor
Henry Hogo, Asst. DEO/Science & Technology Advancement
Matt MacKenzie, MSRC Contracts Assistant
Ana Ponce, MSRC Administrative Liaison
Cynthia Ravenstein, MSRC Contracts Administrator
Rachel Valenzuela, MSRC Contracts Assistant
Paul Wright, Audio-Visual Specialist

CALL TO ORDER

- Call to Order

MSRC Vice Chair Larry McCallon called the meeting to order at 2:01 p.m., in the absence of MSRC Chair Greg Pettis. Vice Chair McCallon asked that roll call be taken. The following members were present at time of roll call: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM, MCCALLON, RUSH.

- Opening Comments

There were no opening comments.

PUBLIC COMMENT PERIOD

- Public comments were allowed during the discussion of each agenda item. No comments were made on non-agenda items.

CONSENT CALENDAR (Items 1 through 4)**Receive and Approve Items****Agenda Item #1 – Minutes of the June 18, 2015 MSRC Meeting**

The minutes of the June 18, 2015 MSRC meeting were distributed at the meeting.

ON MOTION BY MSRC ALTERNATE ADAM RUSH, AND SECONDED BY MSRC ALTERNATE BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS 1 THROUGH 4, THE MSRC UNANIMOUSLY VOTED TO APPROVE THE JUNE 18, 2015 MSRC MEETING MINUTES.
AYES: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM, MCCALLON, RUSH.
NOES: NONE.

ACTION: Staff will include the minutes in the MSRC Committee Report for the September 4, 2015 SCAQMD Board meeting, and place a copy on the MSRC's website.

Agenda Item #2 – Summary of Final Reports by MSRC Contractors

Four final report summaries were included in the agenda package, as follows:

1. CR&R Incorporated, Contract #MS11016, which provided \$100,000 towards the construction of a new CNG station in Perris;
2. Arcadia Unified School District, MS14052, which provided \$78,000 to expand their CNG station;
3. USA Waste of California, Inc., Contract #MS12004, which provided \$175,000 towards a new CNG station and maintenance facility modifications in Chino; and
4. Orange County Transportation Authority, Contract #MS12061, which provided \$224,000 to implement a bikeshare program in Fullerton.

ON MOTION BY MSRC ALTERNATE ADAM RUSH, AND SECONDED BY MSRC ALTERNATE BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS 1 THROUGH 4, THE MSRC UNANIMOUSLY VOTED TO APPROVE THE FINAL REPORTS ABOVE.

AYES: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM, MCCALLON, RUSH.

NOES: NONE.

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 May 28 through July 29, 2015 was included in the agenda package.

ON MOTION BY MSRC ALTERNATE ADAM RUSH, AND SECONDED BY MSRC ALTERNATE BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS 1 THROUGH 4, THE MSRC UNANIMOUSLY VOTED TO RECEIVE AND FILE THE CONTRACTS ADMINISTRATOR’S REPORT FOR MAY 28 THROUGH JULY 29, 2015.

AYES: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM, MCCALLON, RUSH.

NOES: NONE.

ACTION: SCAQMD staff will include the MSRC Contracts Administrator’s Report in the MSRC Committee Report for the September 4, 2015 SCAQMD Board meeting.

Agenda Item #4 – AB 2766 Discretionary Fund Financial Report

A financial report on the AB 2766 Discretionary Fund for the period ending July 31, 2015 was included in the agenda package.

ON MOTION BY MSRC ALTERNATE ADAM RUSH, AND SECONDED BY MSRC ALTERNATE BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEMS 1 THROUGH 4, THE MSRC UNANIMOUSLY VOTED TO RECEIVE AND FILE THE FINANCIAL REPORT FOR THE PERIOD ENDING JULY 31, 2015.

AYES: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM, MCCALLON, RUSH.

NOES: NONE.

ACTION: No further action is required.

ACTION CALENDAR (Items 5 through 9)

Agenda Item #5 – Authorize Issuance of New Contract to Complete Work Initiated by City of Palm Springs Under Contract #ML12019 (\$38,000 – Electric Vehicle Charging Infrastructure)

Cynthia Ravenstein, MSRC Contracts Administrator, reported that the MSRC had awarded the City of Palm Springs \$38,000 initially to install 6 electric vehicle charging stations. They were able to get some other funding from the California Energy Commission, get some really good

prices on things, and they came back and asked the MSRC to authorize a modification to their contract to allow them to do more stations with the residual funds. The MSRC approved that request, requiring a minimum of 35 stations. The City has completed 34 stations and they requested an extension. There were concerns raised about the lack of specificity in the contract, that it did not state an exact number of stations; it just stated a minimum. Before those concerns could be resolved, the contract terminated. Subsequently, the City has determined the number and type of stations remaining to be funded. It is one station, but it is a “level three,” a fast-charge station, which is considerably more expensive. The recommendation is to issue a replacement contract for the amount that was the balance of the previous contract, \$21,163; a 72-month term for the City to install this DC fast-charging station, and then keep it operational for 5 years.

ON MOTION BY MSRC MEMBER GREG WINTERBOTTOM, AND
SECONDED BY MSRC ALTERNATE BEN BENOIT, THE MSRC VOTED
UNANIMOUSLY TO APPROVE A 72-MONTH REPLACEMENT
CONTRACT WITH THE CITY OF PALM SPRINGS IN THE AMOUNT OF
\$21,163.

AYES: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM,
MCCALLON, RUSH.

NOES: NONE.

ACTION: Staff will include this item for consideration by the SCAQMD Board at its September 4, 2015 meeting.

FYs 2014-16 Work Program

Agenda Item #6 – Consider Funding Applications Received Under the Local Government Match Program

Tanya Love, Chair of the Local Government Match Subcommittee, reported that \$13 million was allocated to the Local Government Match Program for the two-year work program. Of that amount, \$1,625,000 per county was set aside as a geographic minimum to encourage broad-based participation by all of the counties. The application period opened June 2 and it closes on September 4. At this point in time, 26 applications have been received requesting \$5.2 million. Table 1, page 3, of the staff report will show the amount of funding requested by city or county; and page 4, Table 2, provides an overview of those projects by category, to determine if it is an active transportation or a fueling station, etc. The Subcommittee reviewed the 25 applications and made a recommendation to the TAC to recommend approval of those. The 26th application was from the City of El Monte. At this point the Subcommittee is asking for some additional information on that application. The costs seem to be a little high. This application is still being evaluated.

The Local Government Match Program is an interesting program in that it is a competitive call for projects but if the application is turned in the first day and the minimum hasn't been met, it is likely to be funded. Therefore, the TAC and staff recommendation is to approve the \$5.2 million requested; and have the City of El Monte retain its place in line while the Subcommittee takes another look at it, with a follow-up recommendation to be brought back to the MSRC at a future meeting.

The geographic minimums have not been met, except for the County of Los Angeles. If the MSRC allocates the requested \$5.2 million, there will still be adequate funds for the geographic minimums to be met in the future. Ms. Love anticipates returning to the MSRC meeting next month with some additional recommendations.

Erik White commented that CARB is working closely with SCAQMD on their SIP development and one of the areas of tremendous focus is the low NOx engines in medium heavy duty and heavy duty applications. Early next year there will be natural gas engines available that will meet CARB's optional low NOx standards. To the extent that these vehicles are funded through MSRC, it would seem appropriate as the state and the SCAQMD are trying to find ways to accelerate these technologies in the region, that vehicles would meet those standards to the extent that they are available in the market place. Would that be something that can be built into this? That would be important for the government to step up and help develop the market for this.

Ray Gorski said any vehicle that is certified to an optional NOx standard would qualify under this program. Right now the requirement for the alt fuel medium- and heavy-duty vehicles is that they meet the 0.02 g/bhp-hr standard. In all honesty, they almost all come in lower than that, from a certification standpoint, but there is no question that any time the standards are ratcheted up, the program simply follows suit. Therefore, when the 0.02 gram engines become available, they can certainly shift the incentives towards those technologies.

Henry Hogo added that there are two parts: Obviously, we would like the purchase of these much cleaner engines; the other part is the costs and the bid structure for this round is what is commercially available. We have some idea from the engine manufacturers, at least with the natural gas engine how much more it will cost, so there may be a need to shift some funds around if the budget has already been set for these vehicles, so we would have to look at that. However, Mr. Hogo would recommend that as staff works with each of these entities to encourage them to look at the lower NOx engines, and see if that fits in. We can work with Ray Gorski in looking at how the Work Program can be amended in the future. Mr. Gorski added that this program, as designed, requires that the vehicles be certified by CARB, meaning that it has been commercialized. It does accommodate a \$60,000 per vehicle incremental cost, and he is not sure what cost the new 0.02 gram engines will have. The new engines, when they are available, it is important that the MSRC recognize that they still have an unallocated balance of more than \$15 million dollars; approaching \$16 million. So, if it is going to be such that these are pre-commercial vehicles, which may not fit directly under this program, there is still, should the MSRC choose, funding available to have a more dedicated opportunity to accelerate their introduction.

Mr. Hogo commented that the first of the natural gas engines, which is a 9L engine, will be commercially available during the first quarter of next year at 0.02 gram, per a recent meeting with Cummins Westport, the engine manufacturer. It will be fully commercialized. We will work with Ray Gorski and staff to see if there can be some modifications to the Work Program elements to recognize these new engines. Erik White said that would be great and would go a long way for the region, as well, and highlight how both the state should invest and potentially local funds can be invested to bring these much cleaner technologies into the market.

ON MOTION BY MSRC MEMBER MICHELE MARTINEZ, AND
SECONDED BY MSRC ALTERNATE BEN BENOIT, THE MSRC VOTED
UNANIMOUSLY TO APPROVE 25 AWARDS IN THE AMOUNT OF
\$5,114,228, AND TO DEFER ACTION ON THE APPLICATION FROM CITY
OF EL MONTE, WHILE ADDITIONAL INFORMATION IS SOUGHT; AS
PART OF THE LOCAL GOVERNMENT MATCH PROGRAM UNDER THE
FY 2014-16 WORK PROGRAM.

AYES: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM, RUSH,
MCCALLON.

NOES: NONE.

ACTION: Staff will include these awards for consideration by the SCAQMD Board at its September 4 meeting.

Agenda Item #7 – Consider Work Plan Received Under the Transportation Control Measure CTC Partnership Program

MSRC-TAC Member Kelly Lynn, Chair/TCM Subcommittee, reported that this is an element of the new FYs 2014-16 Work Program. The MSRC allocated \$10 million to demonstrate innovative projects that have potential to reduce significant numbers of automobile trips or remove impediments to efficient traffic flow. The MSRC Program seeks to enter into partnerships with the CTCs that have historically taken the lead in implementing TDM/TCM strategies. The MSRC has set aside \$2.5 million per County to be administered by each County's respective Transportation Commission. There are a number of projects that are eligible for this type of funding: freeway service patrol, EV charging stations, bicycle projects, and anything with active transportation. It opened up on May 1st; and closes on November 25, 2015. The CTCs are all working on their proposals, looking at what is going to work best in their region. OCTA is the first to submit a project which involves five active transportation projects, more specifically bicycle projects, involving everything from enhanced lighting of bicycle pathways to improving bicycle pathways. They are requesting \$943,643, and the projects are co-funded, as well. It allows the MSRC money to be able to go a bit further. That is the other nice enhancement about this program.

MSRC Member Greg Winterbottom added that OCTA has a strong Bicycle Subcommittee working with the TAC and this is proof of how we are doing. One of the individuals is a staunch bicyclist. This is the result of that Subcommittee working through the CAC and on up to getting funded. Thanks to the MSRC we are going to have some good bicycle stuff.

Mr. Winterbottom stated that he is required to identify for the record that he is a member of the Board of Directors for OCTA, which is involved in this item, but he can still vote. He provided this disclosure for this item, and Agenda Item #2.

ON MOTION BY MSRC MEMBER MICHELE MARTINEZ, AND
SECONDED BY MSRC ALTERNATE BEN BENOIT, THE MSRC VOTED
UNANIMOUSLY TO APPROVE FUNDING IN THE AMOUNT OF \$943,643
TOWARDS FIVE OCTA ACTIVE TRANSPORTATION PROJECTS
AYES: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM, RUSH,
MCCALLON.
NOES: NONE.

ACTION: Staff will include this item for consideration by the SCAQMD Board at its September 4, 2015 meeting.

Agenda Item #8 – Consider Recommendation for Programmatic Outreach Services for the MSRC

MSRC-TAC Chair Gretchen Hardison reported that for many years the MSRC has maintained a consultant to conduct Programmatic Outreach Services. In keeping with MSRC practice to re-compete services after the base contract and options have been exercised, in April the MSRC approved the release of a Request for Proposals to renew these programmatic outreach services. Concurrently, the MSRC also allocated \$120,000 to continue those services as an element of the current FYs 2014-16 Work Program. The RFP was released on May 1 with a June 17 deadline and the RFP established evaluation criteria which are in the staff report. The RFP also established

a targeted funding level of \$120,000 for a base 2-year period, and it also included an optional cost proposal for an additional 2 years. Five proposals were received in response to the RFP. After the Evaluation Committee reviewed those proposals, they decided to interview the top three ranked proposers. The final scores are also in the packet. Ms. Hardison is pleased to recommend on behalf of the MSRC-TAC that The Better World Group be awarded a contract in an amount not to exceed \$118,065 for a base two-year period beginning in January 2016, with a one-time, two-year option. If the MSRC chooses to adopt this and to exercise that option, the contract value for the two-year option period would be determined at that time and come out of that Work Program.

The Better World Group continues to demonstrate an excellent understanding of what the MSRC does, the framework within which we operate, the audience, the work to be performed, and they have a deep understanding of the contractors, the local governments and other parties with which the MSRC works. They had a lot of new ideas and a lot of energy to bring to this program. They are tough to beat! The Evaluation Committee was pleased with the two other proposers that were interviewed, but The Better World Group's efforts really do stand out above the others that were reviewed. The MSRC was asked for their concurrence in awarding the contract for Programmatic Outreach Services to The Better World Group. If the MSRC approves this award recommendation, it will be forwarded to the SCAQMD Governing Board for consideration at its September 4, 2015 meeting.

ON MOTION BY MSRC MEMBER GREG WINTERBOTTOM, AND
SECONDED BY MSRC ALTERNATE BEN BENOIT, THE MSRC VOTED
UNANIMOUSLY TO APPROVE A CONTRACT AWARD TO THE BETTER
WORLD GROUP TO PROVIDE OUTREACH SERVICES FOR THE MSRC
IN AN AMOUNT NOT TO EXCEED \$118,065 FOR A BASE TWO-YEAR
PERIOD COMMENCING JANUARY 2016; WITH A ONE-TIME TWO-
YEAR TERM OPTION FOR WHICH, IF THE MSRC CHOOSES TO
EXERCISE THE OPTION, THE CONTRACT VALUE WOULD BE
INCREASED IN AN AMOUNT TO BE DETERMINED AT THAT TIME.

AYES: BENOIT, MARTINEZ, VERES, WHITE, WINTERBOTTOM, RUSH,
MCCALLON.

NOES: NONE.

ACTION: Staff will include this award for consideration by the SCAQMD Board at its September 4 meeting.

Agenda Item #9 – Consider Partnership with SCAQMD to Implement a Residential Electric Vehicle (EV) Charging Incentive Pilot Program

Ray Gorski, MSRC Technical Advisor, presented this item on behalf of the SCAQMD. They are seeking the MSRC's participation in a joint program which would help introduce additional electric vehicle charging equipment in residential homes. This program is intended to help buy down the cost of acquiring electric vehicle chargers. It is currently envisioned that the program will award up to \$250 per charger for those residents within the SCAQMD which are not afforded an opportunity through their regular local electrical utility provider. There is also an opportunity for an individual to earn an additional \$250 if they are economically disadvantaged and typically that will be determined by whether or not they qualify for subsidized electrical usage or rates. The program is currently envisioned to help ensure that there is equity amongst all the residents within the SCAQMD. Some jurisdictions already have incentive programs in place; others do not. This program is really intended to level the playing field for all the residents such that they can have a reduced cost for purchasing electric home charger. The total program value is \$1 million. The MSRC is asked to contribute \$500,000, which will be matched equally by the SCAQMD. This is

a pilot program, meaning that they are going to, for all intents and purposes, test the waters. While \$1 million may sound like a lot, if you look at the number of residents within the four-county region, it is still a really small fraction, and because of all the issues with air quality and the challenges which the SCAQMD is facing, the use of electric cars and zero tailpipe emissions is viewed as an important strategy to help reach the attainment requirements for air quality. The specifics of the program will be implemented by the SCAQMD. The MSRC staff will have a relatively limited role in doing the day-to-day administration. As far as the actual constructs of the program, some of them are still in the works. They are trying to make this as flexible as possible, but because this is a pilot demonstration, there will probably need to be some mid-course corrections as we go through. Therefore, the MSRC will be kept apprised, not only how the program is being received, but also of any modifications that have been made to it.

Today's request by the SCAQMD is to partner with the MSRC in the amount of \$500,000 to implement a Residential EV Charging Incentive Program. The base incentive will be \$250. Disadvantaged households will earn up to a maximum of \$500. The total program value is \$1 million, equally shared between the two agencies. The \$500,000 will come from the MSRC's unallocated balance, which is currently approximately \$15.7 million.

[MSRC Member Michael Antonovich arrived during the discussion of this item, at approximately 2:27 p.m.]

MSRC Vice Chair Larry McCallon asked if Southern California Edison is participating or contributing. Mr. Gorski indicated that there are some utilities that do have incentive programs, for example, L.A. Department of Water and Power has had incentive programs. Some of the smaller municipal utilities do in fact have programs. To the best of his knowledge, Southern California Edison, at this time, does not have any program.

MSRC Member Erik White indicated that the CARB and SCAQMD have pilot programs for EV deployments in disadvantaged communities and for low income consumers. Can this money be packaged with that to help make home charging more affordable for low income consumers who may be participating in the EFMP program, for instance? Mr. Hogo replied that it will complement the EFMP. The SCAQMD has had consumers purchasing full electric vehicles, as well as plug-ins and they can access State funding for electric charging stations, but some of the consumers do not qualify, even though they participating in the EFMP, because they do not live in a disadvantaged community. This program will complement that. Therefore, we have told those consumers to wait until we start our program and apply for funding. Regarding Edison, we are covering all the territory that Edison has for which they are not offering a rebate. Mr. Hogo responded to other questions relating to the EFMP program.

MSRC Member Steve Veres is wondering how SCAQMD is handling multi-family rental scenarios. Mr. Hogo said they will be testing the waters and we have been looking at this closely, along with CARB and the Energy Commission on what to do with Multi-Unit Dwellings (MUDs), and how to get charging into the units. We have to work with the landlords of those multi-family units to see if they are willing to put that in. In addition, we have been discussing with the building associations about putting in electric charging as part of our review under CEQA when new developments occur. Mayor Yates, SCAQMD Governing Board Vice Chair, has pushed for changes in the city's building codes to require stubouts for natural gas home refueling units, in the past. We have been looking at whether cities can modify their codes to have some requirements that during construction of the multifamily units, that there be stubouts for charging stations. Those are things we are pursuing.

ON MOTION BY MSRC MEMBER MICHELE MARTINEZ, AND SECONDED BY MSRC ALTERNATE ADAM RUSH, THE MSRC VOTED UNANIMOUSLY TO APPROVE PARTNERING WITH THE SCAQMD ON A RESIDENTIAL EV CHARGING PILOT PROGRAM FOR WHICH THE SCAQMD WILL PROVIDE \$500,000 IN FUNDING AND THE MSRC WILL MATCH THIS WITH A \$500,000 CONTRIBUTION FROM THE MSRC DISCRETIONARY FUND.

AYES: ANTONOVICH, MARTINEZ, VERES, WHITE, WINTERBOTTOM, RUSH, MCCALLON.

NOES: NONE.

ACTION: Staff will include this item for consideration by the SCAQMD Board at its September 4, 2015 meeting.

OTHER BUSINESS

Agenda Item #10 – Other Business

No other business was introduced.

ADJOURNMENT

THERE BEING NO FURTHER BUSINESS, THE MSRC MEETING ADJOURNED AT 2:37 P.M.

NEXT MEETING:

Thursday, September 17, 2015, at 2 p.m., Room CC-8.

[Prepared by Ana Ponce]



MSRC Agenda Item No. 3

DATE: October 15, 2015

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 August 27 to September 23, 2015.

RECOMMENDATION: Receive and file report

WORK PROGRAM IMPACT: None

Contract Execution Status

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 undergoing internal review or with the prospective contractor for signature.

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 under development or undergoing internal review.

2012-14 Work Program

On April 5, 2013, the SCAQMD Governing Board approved three awards under the Event Center Transportation Program. These contracts are executed.

On July 5, 2013, the SCAQMD Governing Board approved an additional award to Orange County Transportation Authority under the Event Center Transportation Program. This contract is executed.

On September 6, 2013, the SCAQMD Governing Board approved an award to Transit Systems Unlimited under the Event Center Transportation Program. This contract is executed.

On November 1, 2013, the SCAQMD Governing Board approved two awards under the Event Center Transportation Program. These contracts are executed.

On December 6, 2013, the SCAQMD Governing Board approved 25 awards under the Local Government Match Program, 12 awards under the Alternative Fuel Infrastructure Program, one award under the Alternative Fuel School Bus Incentives Program, and one award under the Event Center Transportation Program. These contracts are with the prospective contractor for signature or executed.

On January 10, 2014, the SCAQMD Governing Board approved three awards under the Local Government Match Program, one award under the Alternative Fuel Infrastructure Program, and one award under the Alternative Fuel School Bus Incentives Program. These contracts are executed.

On February 7, 2014, the SCAQMD Governing Board approved two awards under the Local Government Match Program and one award under the Alternative Fuel Infrastructure Program. These contracts are executed.

On April 4, 2014, the SCAQMD Governing Board approved two awards under the Local Government Match Program and three awards under the Traffic Signal Synchronization Partnership Program. These contracts are executed.

On May 2, 2014, the SCAQMD Governing Board approved 12 awards under the Local Government Match Program. These contracts are awaiting responses from the prospective contractor, with the prospective contractor for signature, or executed.

On June 6, 2014, the SCAQMD Governing Board approved an award under the Traffic Signal Synchronization Partnership Program. This contract is executed.

On July 11, 2014, the SCAQMD Governing Board approved an award under the Traffic Signal Synchronization Partnership Program. This contract is executed.

On September 5, 2014, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On October 3, 2014, the SCAQMD Governing Board approved an award under the Alternative Fuel Infrastructure Program. This contract is executed.

On December 5, 2014, the SCAQMD Governing Board approved 12 awards under the Alternative Fuel Infrastructure Program and two awards under the Event Center Transportation Program. These contracts are awaiting responses from the prospective contractor, with the prospective contractor for signature, or executed.

On February 6, 2015, the SCAQMD Governing Board approved 3 awards under the Alternative Fuel Infrastructure Program. These contracts are awaiting responses from the prospective contractor or executed.

Work Program Status

Contract Status Reports for work program years with open and 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 2005-06 Work Program Contracts

3 contracts from this work program year are open; and 3 are in “Open/Complete” status, having completed all obligations save ongoing operation. One contract closed during this period: City of Commerce, Contract #MS06013 – Install New L/CNG Station.

FY 2005-06 Work Program Invoices Paid

No invoices were paid during this period.

FY 2006-07 Work Program Contracts

2 contracts from this work program year are open; and 11 are in “Open/Complete” status. Three contracts closed during this period: Avery Petroleum, Contract #MS07020 – Install New CNG Station; CR&R, Inc., Contract #MS07057 – Purchase 28 Natural Gas Refuse Trucks; and USA Waste of California, Contract #MS07077 – Purchase 5 Natural Gas Refuse Trucks (Santa Ana).

FY 2006-07 Invoices Paid

No invoices were paid during this period.

FY 2007-08 Work Program Contracts

8 contracts from this work program year are open; and 19 are in “Open/Complete” status. Two contracts closed during this period: City of San Bernardino, Contract #MS08014 – Purchase 13 Heavy-Duty Natural Gas Vehicles; and Clean Energy Fuels Corp., Contract #MS08066 – Install New CNG Station (Palm Springs Airport).

FY 2007-08 Invoices Paid

No invoices were paid during this period.

FY 2008-09 Work Program Contracts

5 contracts from this work program year are open; and 15 are in “Open/Complete” status. One contract passed into “Open/Complete” status during this period: Los Angeles County Department of Public Works, Contract #ML09026 – Repower Three Off-Road Vehicles.

FY 2008-09 Invoices Paid

No invoices were paid during this period.

FY 2009-10 Work Program Contracts

No contract from this work program year is open; and 15 are in “Open/Complete” status. One contract passed into “Open/Complete” status during this period: County of Los Angeles

Department of Public Works, Contract #MS10015 – Purchase Two Heavy-Duty CNG Vehicles. This is the last time the FY 2009-10 Work Program will appear in this report.

FY 2009-10 Invoices Paid

No invoices were paid during this period.

FY 2010-11 Work Program Contracts

23 contracts from this work program year are open; and 30 are in “Open/Complete” status. 7 contracts passed into “Open/Complete” status during this period: Border Valley Trading, Contract #MS11010 – Install New LNG Station; CR&R Inc., Contract #MS11016 – Install New CNG Station (Perris); City of Corona, Contract #MS11019 – Expansion of CNG Station; Rowland Unified School District, Contract #MS11060 – New Limited Access CNG Station; City of Redlands, Contract #MS11067 – Expansion of Existing CNG station; Ryder System, Contract #MS11068 – New Public Access L/CNG Station; Ryder System, Contract #MS11069 – Public Access L/CNG Station. One proposed contract with the Los Angeles Unified School District was recently signed by the prospective contractor following MSRC approval of modifications, and is currently with the SCAQMD Board Chair for signature.

FY 2010-11 Invoices Paid

4 invoices totaling \$357,884.96 were paid during this period.

FY 2011-12 Work Program Contracts

39 contracts from this work program year are open, and 21 are in “Open/Complete” status. One contract closed during this period for which the MSRC has authorized a replacement contract: City of Palm Springs, Contract #ML12019 – EV Charging Infrastructure. One contract passed into “Open/Complete” status during this period: FirstCNG, LLC, Contract #MS12073 – New Public Access CNG Station.

FY 2011-12 Invoices Paid

One invoice in the amount of \$15,000.00 was paid during this period.

FYs 2012-14 Work Program Contracts

54 contracts from this work program year are open, and 2 are in “Open/Complete” status. One contract passed into “Open/Complete” status during this period: Arcadia Unified School District, Contract #MS14052 – Expansion of Existing CNG Station.

FYs 2012-14 Invoices Paid

2 invoices totaling \$309,640.00 were paid during this period.

FYs 2014-16 Work Program Contracts

One contract from this work program year is open.

FYs 2014-16 Invoices Paid

One invoice in the amount of \$33,348.00 was paid during this period.

Administrative Scope Changes

No administrative scope changes were initiated during the period of August 27 to September 23, 2015.

Attachments

- FY 2004-05 through FYs 2014-16 Contract Status Reports



AB2766 Discretionary Fund Program Invoices

August 27, 2015 to September 23, 2015

Contract Admin.	MSRC Chair	MSRC Liaison	Finance	Contract #	Contractor	Invoice #	Amount
<i>2010-2011 Work Program</i>							
9/18/2015	10/2/2015	10/2/2015	10/6/2015	MS11067	City of Redlands	1-Final	\$85,000.00
9/17/2015	9/17/2015	9/17/2015	9/17/2015	MS11010	Border Valley Trading	11010-2-Fina	\$15,000.00
9/16/2015	9/17/2015	9/17/2015	9/17/2015	MS11019	City of Corona	13800243-Fin	\$225,000.00
9/16/2015	9/17/2015	9/17/2015	9/17/2015	MS11086	DCL America Inc.	10000077397	\$32,884.96
Total: \$357,884.96							
<i>2011-2012 Work Program</i>							
9/17/2015	9/17/2015	9/17/2015	9/17/2015	MS12073	FirstCNG, LLC	1007-Final	\$15,000.00
Total: \$15,000.00							
<i>2012-2014 Work Program</i>							
9/16/2015	9/17/2015	9/17/2015	9/17/2015	MS14074	Midway City Sanitary District	1	\$225,000.00
9/4/2015	9/17/2015	9/17/2015	9/17/2015	MS14005	Transit Systems Unlimited, Inc.	53912	\$84,640.00
Total: \$309,640.00							
<i>2014-2016 Work Program</i>							
9/17/2015	9/17/2015	9/17/2015	9/17/2015	MS14089	Top Shelf Consulting, LLC	004	\$33,348.00
Total: \$33,348.00							
Total This Period: \$715,872.96							

FYs 2004-05 Through 2014-16 AB2766 Contract Status Report

10/8/2015

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	3/20/2016	\$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 2005-2006 Contracts

Open Contracts

ML06031	City of Inglewood	4/4/2007	6/3/2013	9/3/2015	\$150,000.00	\$65,602.40	Purchase 4 H-D LPG Vehicles & Install LPG	\$84,397.60	No
ML06035	City of Hemet, Public Works	11/10/2006	12/9/2012	1/9/2017	\$338,107.00	\$175,000.00	7 Nat Gas Trucks & New Nat Gas Infrastruct	\$163,107.00	No
ML06070	City of Colton	4/30/2008	2/28/2015	4/30/2015	\$50,000.00	\$0.00	Two CNG Pickups	\$50,000.00	No

Total: 3

Declined/Cancelled Contracts

ML06018	Los Angeles County Dept of Beache				\$375,000.00	\$0.00	New CNG Station & 2 CNG Dump Trucks	\$375,000.00	No
ML06019	Los Angeles County Dept of Beache				\$250,000.00	\$0.00	New CNG Station & 2 CNG Dump Trucks	\$250,000.00	No
ML06023	City of Baldwin Park	6/16/2006	9/15/2012		\$20,000.00	\$0.00	CNG Dump Truck	\$20,000.00	No
ML06024	City of Pomona	8/3/2007	7/2/2013	7/2/2014	\$286,450.00	\$0.00	New CNG Station	\$286,450.00	No
ML06030	City of Burbank	3/19/2007	9/18/2011		\$287,700.00	\$0.00	New CNG Fueling Station	\$287,700.00	No
ML06037	City of Lynwood				\$25,000.00	\$0.00	1 Nat Gas Dump Truck	\$25,000.00	No
ML06039	City of Inglewood	2/9/2007	2/8/2008	4/8/2011	\$50,000.00	\$0.00	Modify Maintenance Facility for CNG Vehicle	\$50,000.00	No
ML06055	City of Los Angeles, Dept. of Genera				\$125,000.00	\$0.00	5 Gas-Electric Hybrid Buses	\$125,000.00	No
ML06059	City of Fountain Valley				\$25,000.00	\$0.00	One H.D. CNG Truck	\$25,000.00	No
MS06009	Clean Energy Fuels Corp.	6/23/2006	12/22/2012		\$250,000.00	\$0.00	New CNG Station - Laguna Niguel	\$250,000.00	Yes
MS06040	Capistrano Unified School District				\$136,000.00	\$0.00	New CNG Fueling Station	\$136,000.00	No
MS06041	Clean Energy Fuels Corp.	12/1/2006	3/31/2013	6/18/2009	\$250,000.00	\$0.00	New CNG Station-Newport Beach	\$250,000.00	No
MS06046	City of Long Beach, Dept. of Public				\$250,000.00	\$0.00	LNG Fueling Station	\$250,000.00	No
MS06051	Menifee Union School District	3/2/2007	7/1/2014		\$150,000.00	\$0.00	CNG Fueling Station	\$150,000.00	No

Total: 14

Closed Contracts

ML06016	City of Whittier	5/25/2006	5/24/2012	11/24/2012	\$50,000.00	\$50,000.00	2 CNG Refuse Trucks	\$0.00	Yes
ML06017	City of Claremont	8/2/2006	4/1/2012		\$50,000.00	\$50,000.00	2 CNG Refuse Trucks	\$0.00	Yes
ML06020	Los Angeles Department of Water an	3/19/2007	9/18/2013	4/18/2014	\$25,000.00	\$25,000.00	CNG Aerial Truck	\$0.00	Yes
ML06021	Los Angeles World Airports	9/13/2006	5/12/2013		\$150,000.00	\$150,000.00	6 CNG Buses	\$0.00	Yes
ML06022	City of Los Angeles, Bureau of Sanit	5/4/2007	1/3/2014		\$1,250,000.00	\$1,250,000.00	50 LNG Refuse Trucks	\$0.00	Yes
ML06025	City of Santa Monica	1/5/2007	11/4/2012	12/14/2014	\$300,000.00	\$300,000.00	12 H.D. CNG Vehicles	\$0.00	Yes
ML06026	City of Cerritos	10/27/2006	9/26/2010		\$60,500.00	\$60,500.00	CNG Station Upgrade	\$0.00	Yes
ML06027	City of Redondo Beach	9/5/2006	5/4/2012	10/4/2012	\$50,000.00	\$50,000.00	2 Heavy-Duty CNG Trucks	\$0.00	Yes
ML06028	City of Pasadena	9/29/2006	11/28/2012	3/28/2014	\$245,000.00	\$245,000.00	New CNG Station & Maint. Fac. Upgrades	\$0.00	Yes
ML06029	City of Culver City Transportation De	9/29/2006	8/28/2012	12/28/2012	\$50,000.00	\$50,000.00	2 CNG Heavy-Duty Trucks	\$0.00	Yes
ML06032	City of Rancho Cucamonga	2/13/2007	3/12/2013	2/12/2014	\$237,079.00	\$237,079.00	New CNG Station & 2 CNG Dump Trucks	\$0.00	Yes
ML06033	City of Cathedral City	11/17/2006	12/16/2012	12/16/2013	\$125,000.00	\$125,000.00	5 Heavy-Duty CNG Trucks	\$0.00	Yes
ML06034	City of South Pasadena	9/25/2006	9/24/2012		\$16,422.42	\$16,422.42	2 Nat. Gas Transit Buses	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML06036	City of Riverside	3/23/2007	3/22/2013		\$200,000.00	\$200,000.00	8 Heavy-Duty Nat Gas Vehicles	\$0.00	Yes
ML06038	City of Los Angeles, Department of	5/21/2007	1/20/2014		\$625,000.00	\$625,000.00	25 CNG Street Sweepers	\$0.00	Yes
ML06044	City of Pomona	12/15/2006	3/14/2013		\$50,000.00	\$50,000.00	2 CNG Street Sweepers	\$0.00	Yes
ML06052	City of Hemet, Public Works	4/20/2007	2/19/2013		\$25,000.00	\$25,000.00	Purchase One CNG Dump Truck	\$0.00	Yes
ML06053	City of Burbank	5/4/2007	7/3/2013		\$125,000.00	\$125,000.00	Five Nat. Gas Refuse Trucks	\$0.00	Yes
ML06056	City of Los Angeles, Dept. of Genera	11/30/2007	11/29/2008		\$350,000.00	\$350,000.00	Maintenance Facility Mods.	\$0.00	Yes
ML06057	City of Rancho Cucamonga	8/28/2007	6/27/2013	8/27/2014	\$100,000.00	\$100,000.00	4 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML06058	City of Santa Monica	7/12/2007	7/11/2013		\$149,925.00	\$0.00	3 H.D. CNG Trucks & CNG Fueling Station	\$149,925.00	No
ML06060	City of Temple City	6/12/2007	6/11/2013		\$31,885.00	\$0.00	Upgrade existing CNG infrastructure	\$31,885.00	No
ML06061	City of Chino Hills	4/30/2007	4/29/2013		\$25,000.00	\$25,000.00	One H.D. CNG Vehicle	\$0.00	Yes
ML06062	City of Redlands	5/11/2007	5/10/2013		\$100,000.00	\$100,000.00	4 H.D. LNG Vehicles	\$0.00	Yes
ML06063	City of Moreno Valley	3/23/2007	11/22/2012		\$25,000.00	\$25,000.00	One H.D. CNG Vehicle	\$0.00	Yes
ML06064	City of South Pasadena	1/25/2008	11/24/2013	11/24/2014	\$50,000.00	\$50,000.00	2 H.D. CNG Vehicles	\$0.00	Yes
ML06065	City of Walnut	6/29/2007	6/28/2013		\$44,203.00	\$44,203.00	Upgrade Existing CNG Infrastructure	\$0.00	Yes
ML06066	City of Ontario, Housing & Municipal	5/30/2007	1/29/2013		\$125,000.00	\$125,000.00	5 H.D. CNG Vehicles	\$0.00	Yes
ML06067	City of El Monte	3/17/2008	5/16/2014	11/16/2014	\$157,957.00	\$157,957.00	Upgrade existing CNG infrastructure	\$0.00	Yes
ML06068	City of Claremont	8/28/2007	6/27/2013		\$60,000.00	\$60,000.00	Expand existing CNG infrastructure	\$0.00	Yes
ML06069	City of Palos Verdes Estates	11/19/2007	11/18/2013		\$25,000.00	\$25,000.00	One H.D. CNG Vehicle	\$0.00	Yes
MS06001	Riverside County Transportation Co	8/3/2007	9/2/2011		\$825,037.00	\$825,037.00	New Freeway Service Patrol	\$0.00	Yes
MS06002	Orange County Transportation Autho	11/7/2007	11/6/2013		\$928,740.00	\$925,091.00	New Freeway Service Patrol	\$3,649.00	Yes
MS06003	San Bernardino Associated Governm	10/19/2006	6/18/2010		\$804,240.00	\$804,239.87	New Freeway Service Patrol	\$0.13	Yes
MS06004	Los Angeles County MTA	8/10/2006	7/9/2010		\$1,391,983.00	\$1,391,791.98	New Freeway Service Patrol	\$191.02	Yes
MS06010	US Airconditioning Distributors	12/28/2006	6/27/2012		\$83,506.00	\$83,506.00	New CNG Station - Industry	\$0.00	Yes
MS06011	County Sanitation Districts of L.A. Co	6/1/2006	7/31/2012		\$150,000.00	\$150,000.00	New CNG Station - Carson	\$0.00	Yes
MS06012	Consolidated Disposal Service	7/14/2006	9/13/2012	9/13/2014	\$297,981.00	\$297,981.00	New LNG Station & Facility Upgrades	\$0.00	Yes
MS06013	City of Commerce	1/9/2008	7/8/2014	7/8/2015	\$350,000.00	\$350,000.00	New L/CNG Station - Commerce	\$0.00	Yes
MS06042	Clean Energy Fuels Corp.	1/5/2007	1/4/2013		\$150,000.00	\$150,000.00	New CNG Station-Baldwin Park	\$0.00	Yes
MS06043X	Westport Fuel Systems, Inc.	2/3/2007	12/31/2010	9/30/2011	\$2,000,000.00	\$2,000,000.00	Advanced Natural Gas Engine Incentive Pro	\$0.00	Yes
MS06045	Orange County Transportation Autho	8/17/2007	12/16/2013		\$200,000.00	\$200,000.00	CNG Fueling Station/Maint. Fac. Mods	\$0.00	Yes
MS06047	Hemet Unified School District	9/19/2007	11/18/2013		\$125,000.00	\$125,000.00	CNG Refueling Station	\$0.00	Yes
MS06048	Newport-Mesa Unified School Distric	6/25/2007	8/24/2013	8/24/2014	\$50,000.00	\$50,000.00	CNG Fueling Station	\$0.00	Yes
MS06050	Rossmoor Pastries	1/24/2007	10/23/2012		\$18,750.00	\$14,910.50	CNG Fueling Station	\$3,839.50	Yes

Total: 45

Open/Complete Contracts

ML06054	Los Angeles County Department of P	6/17/2009	6/16/2016		\$125,000.00	\$125,000.00	3 CNG & 2 LPG HD Trucks	\$0.00	Yes
ML06071	City of Santa Monica	6/13/2014		11/30/2016	\$149,925.00	\$149,925.00	3 H.D. CNG Trucks & CNG Fueling Station	\$0.00	Yes
MS06049	Clean Energy Fuels Corp.	4/20/2007	7/19/2013	11/30/2015	\$250,000.00	\$228,491.18	CNG Fueling Station - L.B.P.D.	\$21,508.82	Yes

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

Open Contracts

ML07044	City of Santa Monica	9/8/2008	3/7/2015	3/7/2017	\$600,000.00	\$50,000.00	24 H.D. Nat. Gas Vehicles	\$550,000.00	No
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

Total: 2

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

ML07025	City of San Bernardino	8/12/2008	7/11/2010		\$350,000.00	\$350,000.00	Maintenance Facility Modifications	\$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?
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
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
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
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
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
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
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
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
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	No
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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	No
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	No
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
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
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: 48

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

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	No
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
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
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
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
MS07008	City of Los Angeles, Department of T	9/18/2009	5/17/2020	9/17/2017	\$1,900,000.00	\$1,900,000.00	Purchase 95 Transit Buses	\$0.00	Yes
MS07009	Orange County Transportation Autho	5/14/2008	4/13/2016		\$800,000.00	\$800,000.00	Purchase 40 Transit Buses	\$0.00	Yes
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
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
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
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

Total: 11

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
ML08030	City of Azusa	5/14/2010	3/13/2016		\$25,000.00	\$0.00	1 CNG Heavy-Duty Vehicle	\$25,000.00	No
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	No
ML08043	City of Desert Hot Springs	9/25/2009	3/24/2016		\$25,000.00	\$0.00	1 CNG Heavy-Duty Vehicle	\$25,000.00	No
MS08007	United Parcel Service West Region	12/10/2008	10/9/2014	4/9/2019	\$300,000.00	\$0.00	10 H.D. Nat. Gas Vehicles	\$300,000.00	No
MS08013	United Parcel Service West Region	12/10/2008	10/9/2014	3/9/2019	\$480,000.00	\$216,000.00	12 H.D. Nat. Gas Yard Tractors	\$264,000.00	No
MS08058	Clean Energy Fuels Corp.	11/26/2009	3/25/2016	3/25/2017	\$400,000.00	\$320,000.00	New CNG Station - Ontario Airport	\$80,000.00	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: 8									
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
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: 16									
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
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	No
ML08029	City of Gardena	3/19/2009	1/18/2015		\$25,000.00	\$25,000.00	1 Propane Heavy-Duty Vehicle	\$0.00	Yes
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML08035	City of La Verne	3/6/2009	11/5/2009		\$11,925.00	\$11,925.00	53 Vehicles (Diagnostic)	\$0.00	Yes
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
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
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
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
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
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
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
MS08022	SunLine Transit Agency	12/18/2008	3/17/2015		\$311,625.00	\$311,625.00	15 CNG Buses	\$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
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
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
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
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	No
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: 38

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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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	No
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
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
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
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
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
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
MS08017	Omnitrans	12/13/2008	12/12/2015	12/12/2016	\$900,000.00	\$900,000.00	30 CNG Buses	\$0.00	Yes
MS08018	Los Angeles County Department of P	8/7/2009	10/6/2016	4/6/2018	\$60,000.00	\$60,000.00	2 CNG Vehicles	\$0.00	Yes
MS08019	Enterprise Rent-A-Car Company of L	2/12/2010	7/11/2016		\$300,000.00	\$300,000.00	10 CNG Vehicles	\$0.00	Yes
MS08020	Ware Disposal Company, Inc.	11/25/2008	2/24/2016		\$900,000.00	\$900,000.00	30 CNG Vehicles	\$0.00	Yes
MS08021	CalMet Services, Inc.	1/9/2009	1/8/2016	7/8/2016	\$900,000.00	\$900,000.00	30 CNG Vehicles	\$0.00	Yes
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
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
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
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

Total: 19

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2008-2009 Contracts

Open Contracts

ML09010	City of Palm Springs	1/8/2010	2/7/2016		\$25,000.00	\$0.00	1 Nat. Gas Heavy-Duty Vehicle	\$25,000.00	No
ML09032	Los Angeles World Airports	4/8/2011	4/7/2018		\$175,000.00	\$0.00	7 Nat. Gas Heavy-Duty Vehicles	\$175,000.00	No
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
ML09047	Los Angeles County Department of P	8/13/2014	8/12/2015	11/12/2015	\$400,000.00	\$0.00	Maintenance Facility Modifications	\$400,000.00	No

Total: 5

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
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
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	No
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
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: 13

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Open/Complete Contracts									
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	No
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	No
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
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	No
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	No
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
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
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
ML09037	City of Redondo Beach	6/18/2010	6/17/2016		\$50,000.00	\$50,000.00	Purchase Two CNG Sweepers	\$0.00	Yes
ML09038	City of Chino	9/27/2010	5/26/2017		\$250,000.00	\$250,000.00	Upgrade Existing CNG Station	\$0.00	Yes
ML09041	City of Los Angeles, Bureau of Sanit	10/1/2010	9/30/2017		\$875,000.00	\$875,000.00	Purchase 35 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML09042	Los Angeles Department of Water an	12/10/2010	12/9/2017		\$1,400,000.00	\$1,400,000.00	Purchase 56 Dump Trucks	\$0.00	Yes
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
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

Total: 15

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2009-2010 Contracts

Declined/Cancelled Contracts

MS10003	City of Sierra Madre	5/11/2012	3/10/2018		\$13,555.00	\$0.00	Purchase 1 H.D. CNG Vehicle	\$13,555.00	No
MS10005	Domestic Linen Supply Company, In	10/8/2010	7/7/2016		\$47,444.00	\$0.00	Purchase 5 Gas-Electric Hybrid Vehicles	\$47,444.00	No
MS10013	City of San Bernardino				\$68,834.00	\$0.00	Purchase 9 H.D. LNG Vehicles	\$68,834.00	No
MS10014	Serv-Wel Disposal				\$18,977.00	\$0.00	Purchase 2 H.D. CNG Vehicles	\$18,977.00	No
MS10018	Shaw Transport Inc.				\$81,332.00	\$0.00	Purchase 6 H.D. LNG Vehicles	\$81,332.00	No
MS10022	Los Angeles World Airports				\$123,353.00	\$0.00	Purchase 13 H.D. CNG Vehicles	\$123,353.00	No
MS10023	Dix Leasing				\$105,000.00	\$0.00	Purchase 3 H.D. LNG Vehicles	\$105,000.00	No

Total: 7

Closed Contracts

MS10001	Los Angeles County MTA	3/19/2010	2/28/2011	4/28/2011	\$300,000.00	\$196,790.61	Clean Fuel Transit Bus Service to Dodger St	\$103,209.39	Yes
MS10002	Coachella Valley Association of Gov	6/18/2010	2/17/2011		\$400,000.00	\$400,000.00	Coachella Valley PM10 Reduction Street Sw	\$0.00	Yes
MS10025	Elham Shirazi	2/18/2011	10/17/2012	2/17/2014	\$199,449.00	\$188,413.05	Telework Demonstration Program	\$11,035.95	No

Total: 3

Open/Complete Contracts

MS10004	Linde LLC	3/2/2012	6/1/2018		\$56,932.00	\$56,931.00	Purchase 6 H.D. CNG Vehicles	\$1.00	Yes
MS10006	Nationwide Environmental Services	11/19/2010	4/18/2017	9/18/2019	\$94,887.00	\$94,887.00	Purchase Three Street Sweepers	\$0.00	Yes
MS10007	Enterprise Rent-A-Car Company of L	7/15/2011	10/14/2017		\$18,976.00	\$18,976.00	Purchase 2 H.D. CNG Vehicles	\$0.00	No
MS10008	Republic Services, Inc.	12/10/2010	5/9/2017		\$123,354.00	\$123,354.00	Purchase 4 CNG Refuse Collection Vehicles	\$0.00	Yes
MS10009	Ware Disposal Company, Inc.	10/29/2010	3/28/2017		\$123,353.00	\$123,352.00	Purchase 4 CNG Refuse Trucks	\$1.00	No
MS10010	New Bern Transport Corporation	10/29/2010	3/28/2017		\$113,864.00	\$113,864.00	Repower 4 Heavy-Duty Vehicles	\$0.00	Yes
MS10011	Foothill Transit Agency	3/9/2012	2/8/2018		\$113,865.00	\$113,865.00	Purchase 12 H.D. CNG Vehicles	\$0.00	Yes
MS10012	Foothill Transit Agency	3/9/2012	3/8/2019		\$85,392.00	\$85,392.00	Purchase 9 H.D. Electric Vehicles	\$0.00	Yes
MS10015	County of Los Angeles Department o	3/14/2014	5/13/2016		\$37,955.00	\$37,955.00	Purchase 2 H.D. CNG Vehicles	\$0.00	Yes
MS10016	Rio Hondo Community College	11/5/2010	5/4/2017		\$16,077.00	\$16,077.00	Purchase 1 CNG Shuttle Bus	\$0.00	Yes
MS10017	Ryder System Inc.	12/30/2011	6/29/2018	12/29/2018	\$651,377.00	\$651,377.00	Purchase 19 H.D. Natural Gas Vehicles	\$0.00	Yes
MS10019	EDCO Disposal Corporation	11/19/2010	2/18/2017		\$379,549.00	\$379,283.81	Purchase 11 H.D. CNG Refuse Trucks	\$265.19	Yes
MS10020	American Reclamation, Inc.	5/6/2011	2/5/2018		\$18,977.00	\$18,977.00	Purchase 1 H.D. CNG Vehicle	\$0.00	Yes
MS10021	City of Glendora	10/29/2010	11/28/2016		\$9,489.00	\$9,489.00	Purchase 1 H.D. CNG Vehicle	\$0.00	Yes
MS10024	Frito-Lay North America	7/29/2011	9/28/2017		\$47,444.00	\$47,444.00	Purchase 5 Electric Vehicles	\$0.00	Yes

Total: 15

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
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	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
ML11027	City of Los Angeles, Dept. of Genera	5/4/2012	7/3/2015	1/3/2016	\$300,000.00	\$0.00	Maintenance Facility Modifications	\$300,000.00	No
ML11029	City of Santa Ana	9/7/2012	3/6/2020		\$262,500.00	\$0.00	Expansion of Existing CNG Station, Install N	\$262,500.00	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
ML11040	City of South Pasadena	5/4/2012	1/3/2019		\$30,000.00	\$0.00	Purchase 1 Nat. Gas H.D. Vehicle	\$30,000.00	No
ML11041	City of Santa Ana	9/7/2012	11/6/2018	5/6/2020	\$265,000.00	\$34,651.86	Purchase 7 LPG H.D. Vehicles, Retrofit 6 H.	\$230,348.14	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
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	No
MS11056	The Better World Group	12/30/2011	12/29/2013	12/29/2015	\$206,836.00	\$170,805.96	Programmatic Outreach Services	\$36,030.04	No
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	No
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	No
MS11065	Temecula Valley Unified School Distr	8/11/2012	1/10/2019		\$50,000.00	\$0.00	Expansion of Existing CNG Station	\$50,000.00	No
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	No
MS11073	Los Angeles Unified School District	9/11/2015	2/10/2022		\$175,000.00	\$0.00	Expansion of Existing 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
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
MS11086	DCL America Inc.	6/7/2013	10/6/2016		\$500,000.00	\$208,422.96	Retrofit Eight H.D. Off-Road Vehicles Under	\$291,577.04	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	\$0.00	Retrofit 17 H.D. Off-Road Vehicles Under Sh	\$390,521.00	No

Total: 24

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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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

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
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
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
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	No
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

Total: 12

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
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

Total: 2

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	No
ML11022	City of Anaheim	3/16/2012	7/15/2018		\$150,000.00	\$150,000.00	Purchase of 5 H.D. Vehicles	\$0.00	No
ML11025	County of Los Angeles Department o	3/14/2014	9/13/2021		\$150,000.00	\$150,000.00	Purchase 5 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11026	City of Redlands	3/2/2012	10/1/2018		\$90,000.00	\$90,000.00	Purchase 3 Nat. Gas H.D. Vehicles	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
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	No
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
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	No
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	No
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
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
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: 30

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2011-2012 Contracts									
Open Contracts									
ML12013	City of Pasadena	10/19/2012	3/18/2015	9/18/2015	\$200,000.00	\$65,065.00	Electric Vehicle Charging Infrastructure	\$134,935.00	No
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
ML12015	City of Fullerton	4/25/2013	11/24/2020		\$40,000.00	\$10,000.00	HD CNG Vehicle, Expand CNG Station	\$30,000.00	No
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
ML12017	City of Los Angeles, Bureau of Sanit	6/26/2013	5/25/2020	11/25/2021	\$950,000.00	\$0.00	32 H.D. Nat. Gas Vehicles	\$950,000.00	No
ML12018	City of West Covina	10/18/2013	10/17/2020		\$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		\$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		\$400,000.00	\$0.00	Install New CNG Station	\$400,000.00	No
ML12046	City of Irvine	8/11/2013	3/10/2021		\$30,000.00	\$0.00	One Heavy-Duty Nat. Gas Vehicle	\$30,000.00	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
ML12049	City of Rialto Public Works	7/14/2014	9/13/2015		\$30,432.00	\$0.00	EV Charging Infrastructure	\$30,432.00	No
ML12051	City of Bellflower	2/7/2014	2/6/2016		\$270,000.00	\$0.00	EV Charging Infrastructure	\$270,000.00	No
ML12057	City of Coachella	8/28/2013	8/27/2019		\$57,456.00	\$0.00	Purchase One Nat. Gas H.D. Vehicle/Street	\$57,456.00	No
MS12001	Los Angeles County MTA	7/1/2012	4/30/2013		\$300,000.00	\$0.00	Clean Fuel Transit Service to Dodger Stadiu	\$300,000.00	No
MS12004	USA Waste of California, Inc.	10/24/2013	11/23/2019		\$175,000.00	\$0.00	Construct New Limited-Access CNG Station	\$175,000.00	No
MS12008	Bonita Unified School District	7/12/2013	12/11/2019		\$175,000.00	\$0.00	Construct New Limited-Acess CNG Station	\$175,000.00	No
MS12009	Sysco Food Services of Los Angeles	1/7/2014	4/6/2020		\$150,000.00	\$0.00	Construct New Public-Access LNG Station	\$150,000.00	No
MS12011	Southern California Gas Company	6/14/2013	6/13/2019	6/13/2020	\$150,000.00	\$0.00	Construct New Public-Access CNG Station -	\$150,000.00	No
MS12024	Southern California Gas Company	6/13/2013	12/12/2019		\$150,000.00	\$0.00	Construct New Public-Access CNG Station -	\$150,000.00	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
MS12031	Final Assembly, Inc.	11/2/2012	11/1/2018		\$100,000.00	\$29,201.40	Purchase 4 Medium-Heavy Duty Vehicles	\$70,798.60	No
MS12033	Mike Diamond/Phace Management	12/22/2012	12/21/2018	6/21/2021	\$500,000.00	\$21,735.00	Purchase 20 Medium-Heavy Duty Vehicles	\$478,265.00	No
MS12034	Ware Disposal Company, Inc.	11/2/2012	11/1/2018	11/1/2020	\$133,070.00	\$74,763.00	Purchase 8 Medium-Heavy Duty Vehicles	\$58,307.00	No
MS12060	City of Santa Monica	4/4/2014	8/3/2017		\$500,000.00	\$25,000.00	Transit-Oriented Bicycle Sharing Program	\$475,000.00	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
MS12075	CR&R Incorporated	7/27/2013	1/26/2021		\$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
MS12078	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$0.00	Maintenance Facility Modifications - Vernon	\$75,000.00	No
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
MS12080	City of Pasadena	11/8/2013	8/7/2020	8/7/2021	\$225,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$225,000.00	No
MS12081	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$0.00	Maintenance Facility Modifications - Santa A	\$75,000.00	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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS12086	SuperShuttle International, Inc.	3/26/2013	3/25/2019		\$225,000.00	\$202,500.00	Purchase 23 Medium-Heavy Duty Vehicles	\$22,500.00	No
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	\$0.00	Implement Rideshare Incentives Program	\$125,000.00	No
MS12089	Riverside County Transportation Co	10/18/2013	9/17/2015		\$250,000.00	\$69,754.70	Implement Rideshare Incentives Program	\$180,245.30	No
MS12Hom	Mansfield Gas Equipment Systems				\$296,000.00	\$0.00	Home Refueling Apparatus Incentive Progra	\$296,000.00	No

Total: 39

Pending Execution Contracts

ML12090	City of Palm Springs				\$21,163.00	\$0.00	EV Charging Infrastructure	\$21,163.00	No
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Total: 1

Declined/Cancelled Contracts

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
MS12030	Complete Landscape Care, Inc.				\$150,000.00	\$0.00	Purchase 6 Medium-Heavy Duty Vehicles	\$150,000.00	No
MS12070	Valley Music Travel/CID Entertainme				\$99,000.00	\$0.00	Implement Shuttle Service to Coachella Mus	\$99,000.00	No

Total: 8

Closed Contracts

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
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	No
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
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	No
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
MS12085	Bear Valley Unified School District	4/25/2013	6/24/2014		\$75,000.00	\$75,000.00	Maintenance Facility Modifications	\$0.00	Yes

Total: 22

Open/Complete Contracts

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	No
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
ML12047	City of Orange	2/1/2013	1/31/2019		\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicle	\$0.00	No
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
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	No
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
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	No
MS12082	City of Los Angeles, Bureau of Sanit	11/20/2013	2/19/2021		\$175,000.00	\$175,000.00	Install New CNG Infrastructure	\$0.00	Yes

Total: 21

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
ML14014	City of Torrance	9/5/2014	12/4/2019		\$56,000.00	\$0.00	EV Charging Infrastructure	\$56,000.00	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		\$810,000.00	\$0.00	Purchase 27 H.D. Nat. Gas Vehicles	\$810,000.00	No
ML14019	City of Corona Public Works	12/5/2014	6/4/2020		\$178,263.00	\$0.00	EV Charging, Bicycle Racks, Bicycle Locker	\$178,263.00	No
ML14021	Riverside County Regional Park and	7/24/2014	12/23/2016		\$250,000.00	\$0.00	Bicycle Trail Improvements	\$250,000.00	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
ML14029	City of Irvine	7/11/2014	6/10/2017		\$90,500.00	\$0.00	Bicycle Trail Improvements	\$90,500.00	No
ML14030	County of Los Angeles Internal Servi	1/9/2015	3/8/2018		\$425,000.00	\$0.00	Bicycle Racks, Outreach & Education	\$425,000.00	No
ML14031	Riverside County Waste Manageme	6/13/2014	12/12/2020		\$90,000.00	\$0.00	Purchase 3 H.D. CNG Vehicles	\$90,000.00	No
ML14032	City of Rancho Cucamonga	1/9/2015	1/8/2022		\$113,990.00	\$18,110.88	Expansion of Existing CNG Infrs., Bicycle L	\$95,879.12	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
ML14034	City of Lake Elsinore	9/5/2014	5/4/2021		\$56,700.00	\$0.00	EV Charging Stations	\$56,700.00	No
ML14049	City of Moreno Valley	7/11/2014	3/10/2021		\$105,000.00	\$30,000.00	One HD Nat Gas Vehicle, EV Charging, Bicy	\$75,000.00	No
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
ML14051	City of Brea	9/5/2014	1/4/2017		\$450,000.00	\$0.00	Installation of Bicycle Trail	\$450,000.00	No
ML14054	City of Torrance	11/14/2014	4/13/2017		\$350,000.00	\$0.00	Upgrade Maintenance Facility	\$350,000.00	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	5/4/2017	\$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
ML14064	City of Claremont	7/11/2014	7/10/2020	1/10/2021	\$60,000.00	\$0.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$60,000.00	No
ML14066	City of South Pasadena	9/12/2014	7/11/2016		\$142,096.00	\$0.00	Bicycle Trail Improvements	\$142,096.00	No
ML14068	City of South Pasadena	9/12/2014	10/11/2015		\$10,183.00	\$0.00	Electric Vehicle Charging Infrastructure	\$10,183.00	No
ML14071	City of Manhattan Beach	1/9/2015	11/8/2018		\$22,485.00	\$0.00	Electric Vehicle Charging Infrastructure	\$22,485.00	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
MS14001	Los Angeles County MTA	3/6/2015	4/30/2015		\$1,216,637.00	\$0.00	Clean Fuel Transit Service to Dodger Stadiu	\$1,216,637.00	No
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	No
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	No
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	No
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	No
MS14039	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Irvine	\$75,000.00	No
MS14040	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Santa An	\$75,000.00	No
MS14041	USA Waste of California, Inc.	9/4/2015	10/3/2021		\$175,000.00	\$0.00	Limited-Access CNG Station, Vehicle Maint.	\$175,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14042	Grand Central Recycling & Transfer	6/6/2014	9/5/2021		\$150,000.00	\$0.00	Expansion of Existing CNG Station	\$150,000.00	No
MS14045	TIMCO CNG Fund I, LLC	6/6/2014	12/5/2020		\$150,000.00	\$135,000.00	New Public-Access CNG Station in Inglewoo	\$15,000.00	No
MS14046	Ontario CNG Station Inc.	5/15/2014	5/14/2020	5/14/2021	\$150,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$150,000.00	No
MS14053	Upland Unified School District	1/9/2015	7/8/2021		\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS14057	Los Angeles County MTA	11/7/2014	10/6/2019		\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14058	Orange County Transportation Autho	11/7/2014	4/6/2016		\$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		\$939,625.00	\$0.00	Implement Various Signal Synchronization P	\$939,625.00	No
MS14072	San Bernardino Associated Governm	3/27/2015	3/26/2018		\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14073	Anaheim Transportation Network	1/9/2015	4/30/2017		\$221,312.00	\$118,207.06	Anaheim Resort Circulator Service	\$103,104.94	No
MS14074	Midway City Sanitary District	1/9/2015	3/8/2021		\$250,000.00	\$225,000.00	Limited-Access CNG Station & Facility Modif	\$25,000.00	No
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
MS14077	County Sanitation Districts of L.A. Co	3/6/2015	5/5/2021		\$175,000.00	\$0.00	New Limited Access CNG Station	\$175,000.00	No
MS14078	American Honda Motor Co., Inc.	9/4/2015	8/3/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14080	CR&R Incorporated	6/1/2015	8/31/2021		\$249,954.00	\$0.00	Expansion of Existing CNG Infrastructure/Ma	\$249,954.00	No
MS14081	CR&R Incorporated	6/1/2015	5/30/2021		\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure/Ma	\$175,000.00	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
MS14084	US Air Conditioning Distributors	5/7/2015	9/6/2021		\$100,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$100,000.00	No
MS14087	Orange County Transportation Autho	8/14/2015	4/30/2016		\$239,645.00	\$0.00	Implement Special Metrolink Service to Ang	\$239,645.00	No
MS14088	Southern California Regional Rail Au	5/7/2015	9/30/2015		\$79,660.00	\$0.00	Special Metrolink Service to Autoclub Speed	\$79,660.00	No
MS14090	City of Monterey Park	5/7/2015	5/6/2021		\$225,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$225,000.00	No

Total: 54

Pending Execution Contracts

ML14013	City of Los Angeles, Bureau of Sanit				\$3,840,000.00	\$0.00	Purchase 128 H.D. Nat. Gas Vehicles	\$3,840,000.00	No
ML14022	County of Los Angeles Department o				\$300,000.00	\$0.00	Purchase 10 H.D. Nat. Gas Vehicles	\$300,000.00	No
ML14023	County of Los Angeles Department o				\$230,000.00	\$0.00	Maintenance Fac. Modifications-Westcheste	\$230,000.00	No
ML14024	County of Los Angeles Department o				\$230,000.00	\$0.00	Maintenance Fac. Modifications-Baldwin Par	\$230,000.00	No
ML14025	County of Los Angeles Dept of Publi				\$300,000.00	\$0.00	Construct New CNG Station in Malibu	\$300,000.00	No
ML14026	County of Los Angeles Dept of Publi				\$300,000.00	\$0.00	Construct New CNG Station in Castaic	\$300,000.00	No
ML14027	County of Los Angeles Dept of Publi				\$500,000.00	\$0.00	Construct New CNG Station in Downey	\$500,000.00	No
ML14060	County of Los Angeles Internal Servi				\$104,400.00	\$0.00	Electric Vehicle Charging Infrastructure	\$104,400.00	No
ML14061	City of La Habra				\$60,000.00	\$0.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$60,000.00	No
ML14067	City of Duarte Transit				\$60,000.00	\$0.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$60,000.00	No
ML14069	City of Beaumont				\$200,000.00	\$0.00	Construct New CNG Infrastructure	\$200,000.00	No
ML14070	City of Rancho Cucamonga				\$365,245.00	\$0.00	Bicycle Trail Improvements	\$365,245.00	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
MS14037	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Carson	\$75,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14038	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Fontana	\$75,000.00	No
MS14075	Fullerton Joint Union High School Di				\$300,000.00	\$0.00	Expansion of Existing CNG Infrastructure/Ma	\$300,000.00	No
MS14079	Waste Resources, Inc.				\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
MS14082	Grand Central Recycling & Transfer				\$150,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$150,000.00	No
MS14085	Prologis, L.P.				\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
MS14086	San Gabriel Valley Towing I				\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14091	Serv-Wel Disposal				\$100,000.00	\$0.00	New Limited-Access CNG Infrastructure	\$100,000.00	No
MS14092	West Covina Unified School District				\$124,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$124,000.00	No
MS16029	The Better World Group				\$0.00	\$0.00	Programmic Outreach Services to the MSR	\$0.00	No

Total: 24

Declined/Cancelled Contracts

ML14063	City of Hawthorne				\$32,000.00	\$0.00	Expansion of Existng CNG Infrastructure	\$32,000.00	No
MS14043	City of Anaheim				\$175,000.00	\$0.00	Expansion of Existing CNG Station	\$175,000.00	No

Total: 2

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
ML14065	City of Orange	9/5/2014	8/4/2015		\$10,000.00	\$10,000.00	Electric Vehicle Charging Infrastructure	\$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
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	No
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

Total: 10

Open/Complete Contracts

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
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

Total: 2

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2014-2016 Contracts

Open Contracts

MS14089	Top Shelf Consulting, LLC	2/5/2015	8/4/2016		\$200,000.00	\$153,382.00	Enhanced Fleet Modernization Program	\$46,618.00	No
MS16004	Mineral LLC	9/4/2015	7/3/2017		\$25,890.00	\$0.00	Design, Develop, Host and Maintain MSRC	\$25,890.00	No

Total: 2

Pending Execution Contracts

ML16005	City of Palm Springs				\$0.00	\$0.00	Purchase 4 H.D. Nat. Gas Vehicles, Bicycle	\$0.00	No
ML16006	City of Cathedral City				\$0.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle, Bicycle	\$0.00	No
ML16007	City of Culver City Transportation De				\$0.00	\$0.00	Purchase 7 H.D. Nat. Gas Vehicles, EV Cha	\$0.00	No
ML16008	City of Pomona				\$0.00	\$0.00	Purchase 4 Medium-Duty and 9 Heavy-Duty	\$0.00	No
ML16009	City of Fountain Valley				\$0.00	\$0.00	Install EV Charging Infrastructure	\$0.00	No
ML16010	City of Fullerton				\$0.00	\$0.00	Expand Existing CNG Station, EV Charging I	\$0.00	No
ML16011	City of Claremont				\$0.00	\$0.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$0.00	No
ML16012	City of Carson				\$0.00	\$0.00	Purchase 2 Heavy-Duty Nat. Gas Vehicles	\$0.00	No
ML16013	City of Monterey Park				\$0.00	\$0.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$0.00	No
ML16014	City of Dana Point				\$0.00	\$0.00	Extend an Existing Class 1 Bikeway	\$0.00	No
ML16015	City of Yorba Linda				\$0.00	\$0.00	Install Bicycle Lanes	\$0.00	No
ML16016	City of Los Angeles, Department of				\$630,000.00	\$0.00	Purchase 21 Heavy-Duty Nat. Gas Vehicles	\$630,000.00	No
ML16017	City of Long Beach				\$0.00	\$0.00	Purchase 48 Medium-Duty, 16 H.D. Nat. Ga	\$0.00	No
ML16018	City of Hermosa Beach				\$0.00	\$0.00	Purchase 2 M.D. Nat. Gas Vehicles, Bicycle	\$0.00	No
ML16019	City of Los Angeles, Dept of General				\$102,955.00	\$0.00	Install EV Charging Infrastructure	\$102,955.00	No
ML16020	City of Pomona				\$0.00	\$0.00	Install Road Surface Bicycle Detection Syste	\$0.00	No
ML16021	City of Santa Clarita				\$0.00	\$0.00	Install EV Charging Infrastructure	\$0.00	No
ML16022	Los Department of Water and Power				\$0.00	\$0.00	Purchase 13 H.D. Nat. Gas Vehicles	\$0.00	No
ML16023	City of Banning				\$30,000.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle	\$30,000.00	No
ML16024	City of Azusa				\$0.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	No
ML16025	City of South Pasadena				\$0.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle, Expand	\$0.00	No
ML16026	City of Downey				\$0.00	\$0.00	Install EV Charging Infrastructure	\$0.00	No
ML16027	City of Whittier				\$0.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	No
ML16028	City of Azusa				\$0.00	\$0.00	Enhance Existing Class 1 Bikeway	\$0.00	No
ML16031	City of Cathedral City				\$25,000.00	\$0.00	Street Sweeping in Coachella Valley	\$25,000.00	No
MS16001	Los Angeles County MTA				\$1,350,000.00	\$0.00	Clean Fuel Transit Service to Dodger Stadiu	\$1,350,000.00	No
MS16002	Orange County Transportation Autho				\$722,266.00	\$0.00	Clean Fuel Transit Service to Orange Count	\$722,266.00	No
MS16003	Special Olympics World Games Los				\$380,536.00	\$0.00	Low-Emission Transportation Service for Sp	\$380,536.00	No
MS16030	Orange County Transportation Autho				\$0.00	\$0.00	Transportation Control Measure Partnership	\$0.00	No

Total: 29

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 33

REPORT: California Air Resources Board Monthly Meeting

SYNOPSIS: The California Air Resources Board met on October 22, 2015, in Diamond Bar. The following is a summary of this meeting.

RECOMMENDED ACTION:
Receive and File.

Judith Mitchell, Member
SCAQMD Governing Board

sm

The Air Resources Board's (ARB or Board) October meeting was held on October 22, 2015, in Diamond Bar at the South Coast Air Quality Management District Auditorium. Key items presented are summarized below.

Discussion Items

1. Public Meeting to Consider a Modification to the Fiscal Year 2015-16 Funding Plan for Low Carbon Transportation Investments and the Air Quality Improvement Program

The Board approved an update to the Fiscal Year 2015-16 Funding Plan for Low Carbon Transportation Investments and the Air Quality Improvement Program. The original plan was approved in June 2015 pending appropriation of funds in the 2015-16 State Budget. The Board-approved plan was predicated on a \$350 million Low Carbon Transportation appropriation. In September 2015, the Legislature approved a partial appropriation of \$90 million. The staff proposal allocates \$90 million toward three ongoing projects and delays implementation of the remaining projects in the Funding Plan. The Board approved the modified Funding Plan and directed staff to continue to work with the air districts to be prepared to act when the remainder of the expected funds are appropriated by the State Legislature.

SCAQMD Staff Comments/Testimony: Mr. Henry Hogo commented that the Low Carbon Transportation Investments and the Air Quality Improvement Program are two incentive programs that enable the deployment of advanced zero and near-zero mobile source technologies critically needed to not only meet long-term climate goals, but more importantly, attain local air quality standards and reduce air toxics exposure. There is a need to inform the state legislature that attainment of federal air quality standards and meeting SIP obligations are of the utmost importance, and more funding will be needed if nonattainment areas in California are to meet federal air quality standards by their applicable deadlines. Mr. Hogo commented that there is a tremendous interest in the EFMP Plus-Up program. There is a need to identify sufficient funding to cover the over 2,000 applications that the SCAQMD has received to-date. The SCAQMD along with co-funding partner, the MSRC, have already approved up to an additional \$12 million of local funding to complement up to \$20 million that CARB allocated to the EFMP. Mr. Hogo urged the Board to consider additional funding level needed to continue the program.

2. Informational Presentation of the Discussion Draft of the Mobile Source Strategy

Staff presented an informational item on the draft mobile source strategy and proposed measure concepts. The presentation discussed how the integrated strategy outlines the mobile source actions needed to meet air quality standards, greenhouse gas and petroleum reduction targets, and reduce near-source risk. Based on public comment and Board direction provided in response to the presentation, staff will continue to work with public stakeholders and air districts to develop the measure concepts into control measures for subsequent consideration by each air district for inclusion in their State Implementation Plan submittals that are due in 2016 for meeting federal air quality standards. Elements of the mobile source strategy will also be incorporated into other planning efforts including ARB's Scoping Plan update, California's Sustainable Freight Action Plan, and ARB's Short Lived Climate Pollutant Plan.

SCAQMD Staff Comments/Testimony: Dr. Barry Wallerstein acknowledged the efforts of the CARB staff and remarked that this has been the best coordination between the agencies in the past three decades. Dr. Wallerstein indicated that CARB staff has laid out the key points but time is of the essence and funding is absolutely critical in order to phase out of the legacy fleets and deploy cleaner, advanced technology vehicles. Dr. Wallerstein noted that CARB does not "get back enough" of the Greenhouse Gas Reduction Funds, which can be used to not only achieve greenhouse gas reductions, but the co-benefits of local criteria pollutant emission and air toxics reductions. To be successful, CARB and SCAQMD must work together along with stakeholders to inform the state legislature that more funding is necessary towards air quality purposes. Dr. Wallerstein commented that it is very important for CARB to develop a funding plan in moving forward. It is also important for the federal government to develop a strategic

plan for mobile sources primarily under its jurisdiction and asked CARB to join the SCAQMD in requesting that the federal government develop such a plan. In addition, Dr. Wallerstein stressed the need for a national 0.02 g/bhp-hr heavy-duty engine emission standard and urged CARB to petition the EPA for such a standard as well as adopt its own state standard as early as possible.

3. Update to the Board on the Advanced Clean Cars Program Mid-Term Review

Staff presented to the Board an update on on-going work related to the Advanced Clean Cars mid-term review, including updates on work with Federal agencies, current zero emission vehicle sales, and research related to consumer preferences. The Board directed staff to look more closely at the credit system and markets involved in the program as the Mid-Term Review progresses towards its final presentation to the Board in late 2016.

4. Update to the Board on Zero Emission Vehicle Market Enabling Actions

Staff, along with invited representatives from other state governments and non-governmental organizations, updated the Board on efforts to enable zero emission vehicle markets. The update covered fueling infrastructure, fleet purchases, multi-state and national partnerships and other relevant topics. Based on the staff presentation and public testimony, the Board discussed a need for more public outreach and consumer education on low and zero emission vehicles, particularly at the dealership and vendor level.

5. Update to the Board on Advanced Clean Cars Particulate Matter Measurement Feasibility

Staff presented an assessment of the feasibility of measuring Particulate Matter (PM) emissions, at and below 1 mg/mi. This informational item was in response to industry concerns about low-level PM emissions measurement. The staff presentation included the progress made, in cooperation with various stakeholders, in gravimetric PM emission determination at and below

1 mg/mi with the conclusion that current methods are adequate and should remain the approved test method. In addition to presenting these findings, staff also provided an evaluation of other approaches to PM emission measurement.

SCAQMD Staff Comments/Testimony: Mr. Henry Hogo thanked CARB staff for the comprehensive update on the Advanced Clean Car Program. The SCAQMD is working closely with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to advance deployment of zero-emission vehicles. Mr. Hogo provided examples of recent SCAQMD Governing Board actions to expand residential electric vehicle charging and development of a protocol to incentivize workplace electric vehicle charging as part of the Rule 2202 program. Mr. Hogo concluded with comments that the

SCAQMD staff is in full agreement with the conclusions reached by CARB staff that it is feasible to measure PM at the 1 mg level.

Consent Items

1. Public Meeting to Consider the Greenhouse Gas Quantification Determination for the Shasta Regional Transportation Agency's Regional Transportation Plan/Sustainable Communities Strategy

The Board accepted the Shasta Regional Transportation Agency's determination that its 2015 Regional Transportation Plan/Sustainable Communities Strategy, if implemented, would achieve the region's per capita greenhouse gas emissions reduction targets for 2020 and 2035 set by the Air Resources Board.

2. Public Meeting to Consider the Greenhouse Gas Quantification Determination for the Tulare County Association of Governments' Regional Transportation Plan/Sustainable Communities Strategy

The Board accepted the Tulare County Association of Governments' determination that its 2014 Regional Transportation Plan/Sustainable Communities Strategy, if implemented, would achieve the region's per capita greenhouse gas emissions reduction targets for 2020 and 2035 set by the Air Resources Board.

3. Public Meeting to Consider the Greenhouse Gas Quantification Determination for the Kings County Association of Governments' Regional Transportation Plan/ Sustainable Communities Strategy.

The Board accepted the Kings County Association of Governments' determination that its 2014 Regional Transportation Plan/Sustainable Communities Strategy, if implemented, would achieve the region's per capita greenhouse gas emissions reduction targets for 2020 and 2035 set by the Air Resources Board.

4. Public Meeting to Consider Updated Transportation Conformity Budgets for the San Joaquin Valley Ozone, PM2.5, and PM10 State Implementation Plans

The Board approved updates to transportation conformity budgets for three State Implementation Plans in the San Joaquin Valley.

Attachment

CARB October 22, 2015 Meeting Agenda

LOCATION: (In-Person)

South Coast Air Quality Management District
Auditorium
21865 E. Copley Drive
Diamond Bar, California 91765-4182

This facility is accessible by public transit. For transit information, call: (800) 743-3463,
<http://www.foothilltransit.org/>
(This facility is accessible to persons with disabilities.)

Or Via Videoconference:

California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium, 2nd Floor
1001 I Street
Sacramento, California 95812

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>**

PUBLIC MEETING AGENDA

**October 22, 2015
(Diamond Bar, CA)**

[Webcast](#)

**Thursday
October 22, 2015
9:00 a.m.**

CONSENT CALENDAR:

The following items on the consent calendar will be presented to the Board immediately after the start of the public meeting, unless removed from the consent calendar either upon a Board member's request or if someone in the audience wishes to speak on it

Consent Item #

- 15-8-1: Public Meeting to Consider the Greenhouse Gas Quantification Determination for the Shasta Regional Transportation Agency's Regional Transportation Plan/Sustainable Communities Strategy**

The Board will consider accepting the Shasta Regional Transportation Agency's determination that its 2015 Regional Transportation Plan/Sustainable Communities Strategy, if implemented, would achieve the region's per capita greenhouse gas emissions reduction targets for 2020 and 2035 set by the Air Resources Board.

[More Information](#)

[Proposed Resolution](#)

15-8-2: Public Meeting to Consider the Greenhouse Gas Quantification Determination for the Tulare County Association of Governments' Regional Transportation Plan/Sustainable Communities Strategy

The Board will consider accepting the Tulare County Association of Governments' determination that its 2014 Regional Transportation Plan/Sustainable Communities Strategy, if implemented, would achieve the region's per capita greenhouse gas emissions reduction targets for 2020 and 2035 set by the Air Resources Board.

[More Information](#)

[Proposed Resolution](#)

15-8-3: Public Meeting to Consider the Greenhouse Gas Quantification Determination for the Kings County Association of Governments' Regional Transportation Plan/ Sustainable Communities Strategy.

The Board will consider accepting the Kings County Association of Governments' determination that its 2014 Regional Transportation Plan/Sustainable Communities Strategy, if implemented, would achieve the region's per capita greenhouse gas emissions reduction targets for 2020 and 2035 set by the Air Resources Board.

[More Information](#)

[Proposed Resolution](#)

15-8-4: Public Meeting to Consider Updated Transportation Conformity Budgets for the San Joaquin Valley Ozone, PM2.5, and PM10 State Implementation Plans

The Board will consider updates to transportation conformity budgets for three State Implementation Plans in the San Joaquin Valley.

[More Information](#)

[Proposed Resolution](#)

DISCUSSION ITEMS:

Note: These agenda items may be heard in a different order at the Board meeting.

Agenda Item #

15-8-5: Public Meeting to Consider a Modification to the Fiscal Year 2015-16 Funding Plan for Low Carbon Transportation Investments and the Air Quality Improvement Program

The Board will consider approving an update to the Fiscal Year 2015-16 Funding Plan for Low Carbon Transportation Investments and the Air Quality Improvement Program, originally approved by the Board in June 2015 pending appropriation of funds in the 2015-16 State Budget. The Board-approved plan was predicated on a \$350 million Low Carbon Transportation appropriation. In September 2015, the Legislature approved a partial appropriation of \$90 million. Staff proposes to allocate the \$90 million toward three ongoing projects and delaying implementation of the remaining projects in the Funding Plan until additional funding is appropriated.

[More Information](#)

[Staff Presentation](#)

15-8-6: Informational Presentation of the Discussion Draft of the Mobile Source Strategy

Staff will present to the Board the mobile source strategy and measure concepts described in the "Mobile Source Strategy Discussion Draft." The presentation will discuss how the comprehensive strategy outlines many of the mobile source actions needed to meet air quality standards, greenhouse gas and petroleum reduction targets, as well as sustainable freight

planning. Based on Board direction provided in response to the presentation, staff will work with the air districts to further develop the measure concepts into control measures for subsequent consideration by each air district for inclusion in their State Implementation Plan submittals that are due in 2016 for meeting federal air quality standards.

[More Information](#)

[Staff Presentation](#)

15-8-7: Update to the Board on the Advanced Clean Cars Program Mid-Term Review

Staff will present to the Board an update on on-going work related to the Advanced Clean Cars mid-term review, including updates on work with Federal agencies, current Zero Emission Vehicle sales, and research contracts related to consumers.

[More Information](#)

[Staff Presentation](#)

15-8-8: Update to the Board on Zero Emission Vehicle Market Enabling Actions

Staff, along with invited experts, will update the Board on efforts to enable zero emission vehicle markets. The update will cover fueling infrastructure, fleet purchases, multi-state and national partnerships, and other relevant topics.

[More Information](#)

[Staff Presentation](#)

15-8-9: Update to the Board on Advanced Clean Cars Particulate Matter Measurement Feasibility

Staff will present to the Board an assessment of the feasibility of measuring Particulate Matter (PM) emissions, at and below 1 mg/mi. This informational item is in response to industry concerns about low-level PM emissions measurement. The staff presentation will include the progress made, in cooperation with various stakeholders, in gravimetric PM emission determination at and below 1 mg/mi. In addition to presenting these findings, staff will also provide an evaluation of other approaches to PM emission measurement.

[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 these 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.

Sarah Farley v. California Air Resources Board, Superior Court of California (Sacramento County), Case No. 34-2015-80002044.

POET, LLC, et al. v. Corey, et al., Superior Court of California (Fresno County), Case No. 09CECG04850; plaintiffs' appeal, California Court of Appeal, Fifth District, Case No. F064045; California Supreme Court, Case No. S213394. [remanded to trial court].

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. 09-CV-02234 [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].

California Dump Truck Owners Association v. Nichols, U.S. District Court (E.D. Cal. Sacramento), Case No. 2:11-CV-00384-MCE-GGH; plaintiffs' appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 13-15175.

Engine Manufacturers Association v. California Air Resources Board, Sacramento Superior Court, Case No. 34-2010-00082774; ARB's successful appeal, California Court of Appeal, Third District, Case No. C071891 [remanded to the trial court].

Truck and Engine Manufacturers Association v. California Air Resources Board, Sacramento Superior Court, Case No. 34-2013-00150733.

Alliance of Automobile Manufacturers v. California Air Resources Board; Sacramento Superior Court, Case No. 34-2013-00152974.

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.

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.

Delta Construction Company, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 11-1428.

Alliance for California Business v. Nichols et al., Glenn County Superior Court, Case No. 13CV01232.

Dalton Trucking, Inc. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 13-1283.

Owner-Operator Independent Drivers Association Inc. et al. v. Richard W. 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).

Jack Cody dba Cody Transport v. California Air Resources Board, et al. (Sacramento Superior Court, Case No. 34-2015-80002116.

CO-AL Transport v. California Environmental Protection Agency et al., (United States Court of Appeals, Ninth Circuit, Case No. 15-70839).

John R. Lawson Rock & Oil, Inc. et al. v. California Air Resources Board et al., Fresno County Superior Court, Case No. 14-CECG01494.

Transportation Solutions Defense and Education Fund v. California Air Resources Board, Fresno County Superior Court, Case No. 14CECG01788 (plaintiff's transfer to Sacramento Superior).

California Air Resources Board v. BP West Coast Products LLC, Contra Costa County Superior Court, Case No. C12-00567.

Sacramento Metropolitan Air Quality Management District v. Hardesty Sand & Gravel, et al. (Sacramento County Superior Court, Case No. 34-2011-00101272).

OPPORTUNITY FOR MEMBERS OF THE BOARD TO COMMENT ON MATTERS OF INTEREST

Board members may identify matters they would like to have noticed for consideration at future meetings and comment on topics of interest; no formal action on these topics will be taken without further notice.

OPEN SESSION TO PROVIDE AN OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE BOARD ON SUBJECT MATTERS WITHIN THE JURISDICTION OF THE BOARD

Although no formal Board action may be taken, the Board is allowing an opportunity to interested members of the public to address the Board on items of interest that are within the Board's jurisdiction, but that do not specifically appear on the agenda. Each person will be allowed a maximum of three minutes to ensure that everyone has a chance to speak.

TO ELECTRONICALLY SUBMIT WRITTEN COMMENTS ON AN AGENDA ITEM IN ADVANCE OF THE MEETING GO TO:

<http://www.arb.ca.gov/lispub/comm/bclist.php>

(Note: not all agenda items are available for electronic submittals of written comments.)

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE CLERK OF THE BOARD:

1001 I Street, 23rd Floor, Sacramento, California 95814

(916) 322-5594

ARB Homepage: www.arb.ca.gov

SPECIAL ACCOMMODATION REQUEST

Consistent with California Government Code Section 7296.2, special accommodation or language needs may be provided for any of the following:

- An interpreter to be available at the hearing;
- Documents made available in an alternate format or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 7 business days before the scheduled Board hearing. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o necesidades lingüísticas pueden ser suministradas para cualquiera de los siguientes:

- Un intérprete que esté disponible en la audiencia
- Documentos disponibles en un formato alternativo u otro idioma
- Una acomodación razonable relacionados con una incapacidad

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 322-5594 o envíe un fax a (916) 322-3928 lo más pronto posible, pero no menos de 7 días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

SMOKING IS NOT PERMITTED AT MEETINGS OF THE CALIFORNIA AIR RESOURCES BOARD

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 34

PROPOSAL: 2016 Air Quality Management Plan White Papers

SYNOPSIS: The draft final Energy Outlook White Paper was released for final public review at the October 2015 Board meeting. An opportunity for public comments is being provided today. In addition, the draft Industrial Facility Modernization White Paper is being released today for public review, and the Board will receive public comments at the December 4, 2015 Board Meeting.

COMMITTEE: Committee reviews as per topic, various dates

RECOMMENDED ACTION:
Receive and file.

Barry R. Wallerstein, D.Env.
Executive Officer

PF:AFM:MK

Background

At the April 10, 2014 AQMP Advisory Group meeting, the SCAQMD staff introduced the concept of developing a series of ten white papers to provide for better integration of major planning issues regarding air quality, climate, energy, transportation, and business needs during the development of the 2016 AQMP. The Energy Outlook and Industrial Facility Modernization White Papers are two of those documents. The remaining eight revised final white papers were “Received and Filed” with the Governing Board at its October 2, 2015 meeting.

Overview

Energy Outlook

The Energy Outlook White Paper reviews the Basin’s energy uses (e.g. renewables, liquid fuels) and the associated emissions resulting from energy use. The paper also reviews the past and current policies impacting energy use within California and the Basin followed by a detailed discussion on the current issues impacting the different energy sectors. The potential emission reductions resulting from new energy policies and technologies within the energy sector as a result of increases in efficiency,

renewable power generation, and reduced liquid fuel use are reviewed in relation to meeting the future ozone attainment goals.

Industrial Facility Modernization

The Industrial Facility Modernization White Paper identifies potential hurdles that may be preventing an owner to replace older, higher emitting equipment and incentives that can better encourage a business owner to replace an older piece of equipment sooner, as well as encourage ultra clean facilities to site in the Basin and incentivize technologies that are needed to meet attainment goals.

Working Groups and Public Participation

The Energy Outlook working group included 37 participants who met three times over the course of 15 months regarding the development of the preliminary draft white paper, which was released to the public in September 2015. The draft final Energy Outlook White Paper incorporated comments received on the preliminary draft and was released to the public in October 2015. Minor edits were made to the revised draft final being released today.

The Industrial Facility Modernization working group included 28 participants who met twice in the past year. A draft Industrial Facility Modernization document is included as an attachment to this Board letter.

The meeting dates, times, agenda, presentations and available material for both the white papers was provided online at <http://www.aqmd.gov/home/about/groups-committees/aqmp-advisory-group/2016-aqmp-white-papers> for public access.

Attachments*

1. Revised Draft Final Energy Outlook White Paper
2. Draft Industrial Facility Modernization White Paper

*These White Papers are also available online at <http://www.aqmd.gov/home/about/groups-committees/aqmp-advisory-group/2016-aqmp-white-papers>



SOUTH COAST
AIR QUALITY
MANAGEMENT DISTRICT

Energy Outlook



2016 AQMP WHITE PAPER

NOVEMBER 2015

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

CHAIRMAN:

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

VICE CHAIRMAN:

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Mayor, Chino
Cities of San Bernardino County

MEMBERS:

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Supervisor, Fifth District
County of Los Angeles

BEN BENOIT
Mayor, Wildomar
Cities of Riverside County

JOHN J. BENOIT
Supervisor, Fourth District
County of Riverside

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City of Los Angeles Representative

MICHAELA. CACCIOTTI
Councilmember, South Pasadena
Cities of Los Angeles County/Eastern Region

JOSEPH K. LYOU, Ph.D.
Governor's Appointee

JUDITH MITCHELL
Councilmember, Rolling Hills Estates
Cities of Los Angeles County/Western Region

SHAWN NELSON
Supervisor, Fourth District
County of Orange

DR. CLARK E. PARKER, SR.
Senate Rules Appointee

MIGUELA. PULIDO
Mayor, Santa Ana
Cities of Orange County

JANICE RUTHERFORD
Supervisor, Second District
County of San Bernardino

South Coast Air Quality Management District

Barry R. Wallerstein, D.Env.
Executive Officer

Philip M. Fine, Ph.D.
Deputy Executive Officer
Planning, Rule Development & Area Sources

Jill Whynot
Assistant Deputy Executive Officer
Planning, Rule Development & Area Sources

Author

Aaron Katzenstein, Ph.D. – Program Supervisor

Reviewers

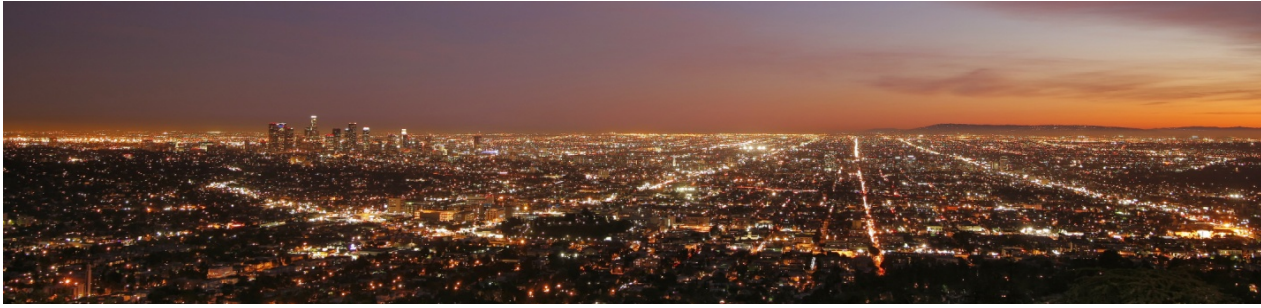
Barbara Baird, J.D. – Chief Deputy Counsel
Scott Epstein, Ph.D. – A.Q. Specialist
Jong Hoon Lee, Ph.D. – A.Q. Specialist
Mohsen Nazemi, P.E. – Deputy Executive Officer
Patti Whiting – Staff Specialist

Contributor

Mia Camacho – Student Intern

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I. Purpose

In order to attain federal ambient air quality standards for ozone and PM_{2.5} in the South Coast Air Basin (Basin), and to achieve the state's GHG reduction targets, transformational changes regarding how we select and use energy resources are essential. The Energy Outlook White Paper Workgroup was assembled to assist staff in the development of a white paper that provides insight and analysis on a range of topics that impact the energy sector and air quality within the Basin. The range of topics and analysis, in part, cover:

- Review of the energy resource choices within the AQMP planning horizon;
- Identification of potential demand, supply, and infrastructure needs for energy sectors based on existing and proposed regulations, policies, and programs;
- Review of emerging technologies that impact efficiency and reliability;
- Scenario analysis based on input from other working groups for various energy sectors;
- Energy infrastructure; and
- Recommended actions for coordinated efforts among the public agencies, fuel providers, and consumers for the scenarios analyzed.

II. Background

The 2016 Air Quality Management plan will largely focus on a NO_x heavy reduction strategy to achieve the 2023 and 2031 federal ozone standard deadlines in the Basin. Additional but limited reductions of VOCs are needed to help achieve the federal ozone standards, and reductions of both NO_x and VOCs will reduce levels of fine particulate matter being formed within the atmosphere. In addition to reducing these criteria pollutants, significant reductions in greenhouse gas (GHG) emissions are needed to achieve the State GHG targets, and to develop pathways for others in the nation and the world to limit atmospheric levels of GHGs below thresholds that lessen the potential for catastrophic climate change impacts.

Within California, many different policies, regulations, market-based mechanisms and incentives are in place and/or are being implemented that impact the types of energy supplied and used, how energy is used, and the emissions associated with energy generation and use. Policies and regulations previously enacted for air quality

improvement have had an impact on the types of energy supplied and used in the Basin. As an example, the amount of coal use for electricity production in California has declined from a peak of 1,363 tons in 1993 to 539 tons in 2012¹. This partially is a result of the Emission Performance Standard established by SB 1368 in 2006, which does not allow an increase in generating capacity of a facility that exceeds 1,100 lbs. CO₂ per MWh². Similar GHG emissions limits are being implemented under the EPA’s Clean Power Plan and will result in fuel switching of several coal power plants nationally. The sources of energy in California will continue to change as a result of the rapid development of new technologies and renewables, needs to protect public health from air pollution, and initiatives such as Governor Brown’s new targets to reduce fossil fuel usage by 50%, increase renewable power generation to 50%, and increase efficiency within existing buildings 50% by 2030.

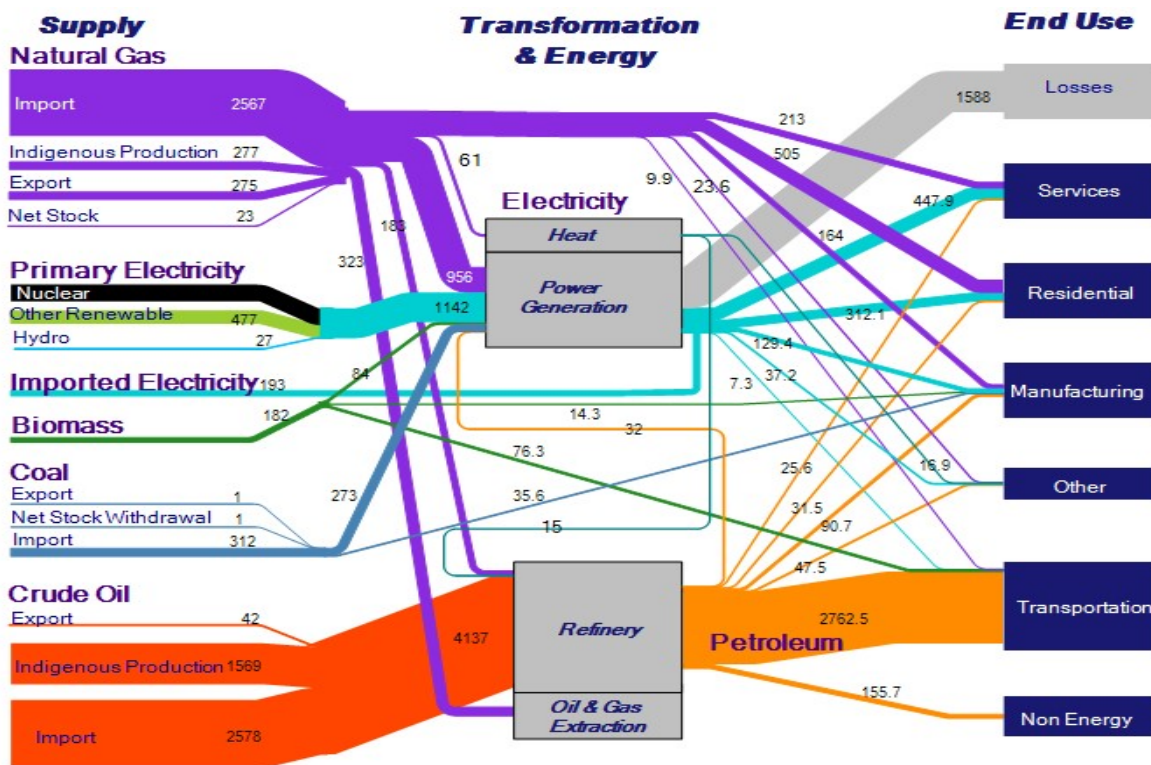


FIGURE 1

2008 California Energy Flow in Trillion BTUs³.

The energy supply and consumption pathways for California in 2008 are shown in Figure 1. These energy pathways show a clear split of energy supply vs. end use, with liquid petroleum fuels primarily used in transportation, whereas, stationary non-transportation end uses utilize gaseous, solid, nuclear, and renewable energy sources. These historical energy flows have relatively little energy crossover between the stationary and transportation sectors. Newer technologies, declining renewable energy costs, changing and volatile fossil energy prices, along with newly implemented policies and regulations are resulting in the traditionally separated transportation and stationary energy sectors becoming more integrated and economically coupled. The changes

in energy supply and the increase in cross sector energy demand will create benefits and potential costs for the use of each energy type along with potential impacts on criteria pollutant, toxic, and GHG emissions.

Additionally, the energy losses within the overall energy system are high. Energy losses relating to power generation are shown in Figure 1 to be 62% of the total primary energy used to generate electricity (not including losses associated with imported electricity generation). These losses are a result of inefficiencies within technologies to generate energy that result in waste heat. Also shown in Figure 1, the difference between energy inputs into the refinery sector and petroleum outputs result in 25% losses in energy also as a result of waste heat production. Not shown in Figure 1 are the significant energy losses that occur within the stationary and transportation end uses of electricity, natural gas, and petroleum. Within the transportation sector these losses are typically around 80% to the heat losses associated with the widespread use of internal combustion drive train technologies⁴.

New renewable energy policies, implementation of new technologies and the enhanced energy efficiency efforts being undertaken in California are driven, in part, by the need for significant reductions in greenhouse gases and will also result in significant criteria pollutant reductions. Since NO_x emissions largely do not have a naturally occurring source in the Basin, except for biomass burning sources, the entire inventory of NO_x emissions is the direct result of combustion sources and the properties of the fuel and end use technologies. Additionally, a large majority of VOC and GHG emissions in the Basin also result from either fugitive or combustion emissions resulting from our energy choices. In 2011, the SCAQMD Governing Board adopted the SCAQMD Air Quality Related Energy Policy which guides the SCAQMD in integrating air quality and GHG reductions along with Basin energy issues in a coordinated manner⁵. The Energy Outlook white paper in part further implements the policies and actions within the SCAQMD Air Quality Related Energy Policy. To further reduce Basin emissions while providing clean reliable energy sources, transformations of the traditional energy infrastructure will be needed as new technologies that have zero and near zero emissions and renewable energy sources are increasingly implemented.

III. Emissions by Energy Type

Shown below in Figure 2 are the NO_x emissions from the 2012 AQMP inventory resulting from different types of energy use. The diesel and gasoline fuels (consumed primarily for transportation) result in the highest NO_x emissions. Even as fleet turnover to lower emission vehicles occurs in the transportation sector and further reductions are achieved for stationary sources, the 2016 AQMP baseline inventory projects that the Basin will not achieve NO_x levels sufficient to achieve the 2023 and 2031 ozone standard, without significant further reductions of NO_x.

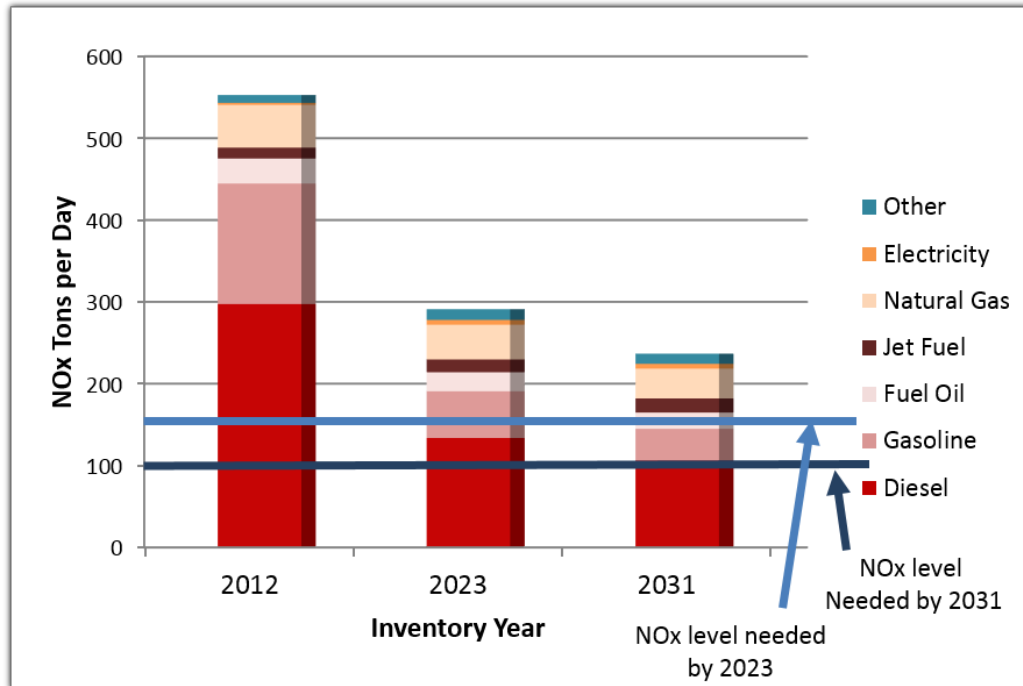


FIGURE 2

NOx Annual Average Emissions Inventory by Fuel Type (2016 AQMP inventory)

The carbon dioxide emissions in the Basin associated with fossil fuel combustion are directly linked to the carbon content in the fuels and the amount of fuels used. As shown in Figure 3 the 2008 Basin carbon dioxide emissions were over 134 million metric tons. This emission estimate does not include fuels used to generate power that is imported into the Basin or the impact of many of the GHG policies and regulations that have come into effect since the 2012 AQMP analysis.

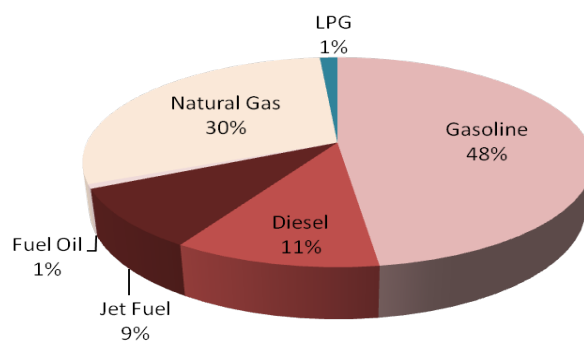


FIGURE 3

Greenhouse Gas (CO₂) Emissions in 2008 by Fuel Type (Total 134 MMT CO₂, 2012 AQMP)

IV. Policies and Regulations Impacting Energy Use in California

There are several federal, state, and local regulations and policies that impact energy usage in California. Table 1 provides a partial list of policies and regulations which have been recently enacted or proposed at the different levels of government.

TABLE 1
Policies and Regulations Impacting Energy Use in California

Policy Objective	Level of Government	Name	Goal
Air Quality	Federal	Clean Air Act	Achieve health based standard levels of criteria and toxic pollutants along with protecting public health from ozone depleting substances and greenhouse gases.
GHG Reduction	Federal	Clean Power Plan	Reduce GHG emissions from new, modified and existing power plants
Fuel Standard	Federal	Energy Independence and Security Act of 2007	36 billion gallons of renewable transportation fuel by 2022.
Truck GHG Reductions	Federal	Phase 2	Increases fuel economy of trucks and trailers starting for model year 2021.
Petroleum Reduction	State	California State Alternative Fuels Plan, Governors Target	Reduce petroleum use in to 15% below 2003 levels by 2020; 50% reduction in petroleum fuel use by 2030.
ZEV Mandate	State	California Executive order B-16-2012	1 million EVs by 2023 and 1.5 million by 2025.
Vehicle Efficiency	State	Pavley Standards AB 1493	Increase vehicle efficiencies and reduce GHG emissions.
GHG Reduction	State	AB32, California Global Warming Solutions Act Governor Targets	Reduce GHG emissions to 1990 levels by 2020, 40% below 1990 levels in 2030, and 80% below 1990 levels by 2050.
GHG Reduction	State	Cap and Trade	Reduce GHG emissions from stationary facilities and fuel providers.
Renewable Power Generation	State	Renewable Portfolio Standard Governors Target, SB 350	33% renewable electricity generation by 2020 and target of 50% renewable power generation by 2030.
Building Efficiency Standards	State	Title 24, Governors Target, SB 350	Net zero energy new residential construction by 2020, net zero energy commercial construction by 2030, increase in existing building efficiency 50% by 2030.
Emissions Performance Standard	State	SB 1368	Establish base load generation to not exceed 1,100 lbs CO ₂ /MWh.
Coastal water protection	State	Once Through Cooling	Eliminate use of once through ocean water cooling by coastal power plants. Protection of coastal waters and marine life.
Energy Storage Mandate	State	AB2514	1.3GW storage mandate by 2020.
Large Stationary Emissions Reductions	Local	Regional Clean Air Incentives Market (RECLAIM)	Declining Allocations and Credit trading program within Basin for NO _x and SO _x reductions from large stationary sources.
Electrical system reliability	State/Local	AB 1318	Needs assessment report evaluates electrical system reliability needs of the South Coast Air Basin.

V. Energy Landscape

Over the past decade the energy landscape in the United States has changed dramatically. This is largely the result of an increase in domestic fossil fuel production from implementing unconventional recovery techniques such as fracking. As a result the United States is requiring less imported energy to match consumption and, by around 2028, is projected to recover as much fossil energy as consumed, Figure 4⁶. However, there are many potential environmental issues and concerns associated with unconventional recovery techniques and the transport of fuel from increased domestic energy production. These concerns, in-part, include the potential for groundwater contamination, wastewater disposal, and emissions associated with well production.

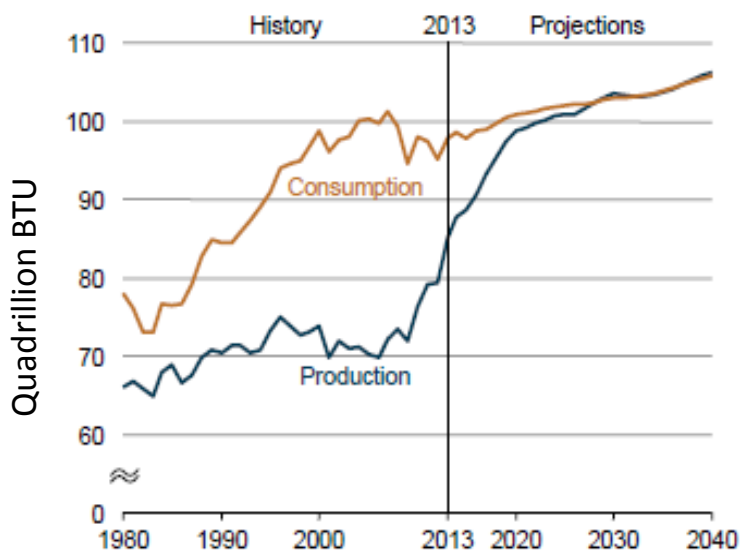
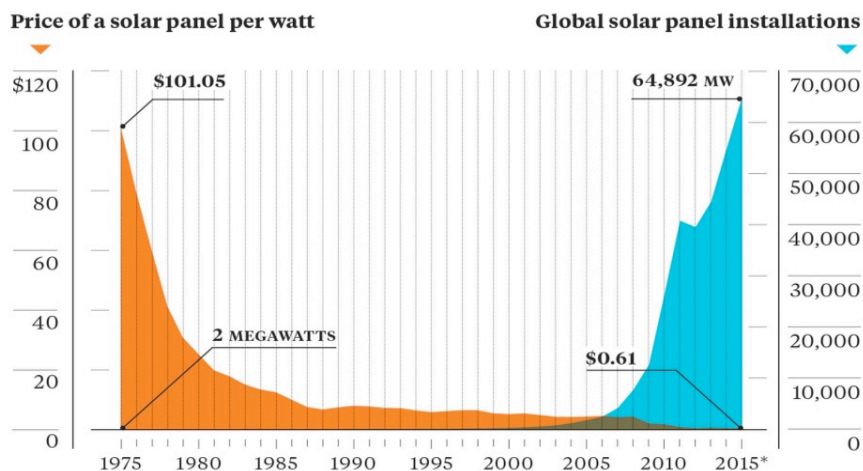


FIGURE 4

Historical and Projected United States Domestic Energy Production and Consumption⁶

At the same time, renewable energy is also being more widely implemented and integrated with new technologies in transportation, energy storage, distributed energy, and demand side management⁷. One of the most significant changes in the renewable landscape has been the dramatic drop in costs for solar power generation as shown in Figure 5. Under the California Solar Initiative, the installed costs for rooftop photovoltaic (PV) systems have dropped 50% over the last 7 years to a recent average below \$5 per watt.

**FIGURE 5**

Solar Panel Prices and Installations over Time (Source: Bloomberg Markets⁸)

The increase in production of oil and gas within the United States has also led to declining prices. These changes, new technologies, along with new policies and regulations are changing the energy landscape within the Basin. Current and upcoming issues and technologies for each energy sector that may result in emissions impacts are discussed below.

a. Electricity

Background

The electricity energy sector is reliant on many different types of fossil and renewable energy sources to meet electrical load demands in real time. A stable grid relies upon the delicate balancing of matching generation with demand, traditionally accomplished by using large central power plants connected to transmission grids operated by grid balancing agencies such as the California Independent System Operator (CAISO). These large transmission grids help supply localized distribution grids operated by utilities to supply end use customers. The traditional generation and distribution system meets electricity demand increases through large central power plants and peaking generation units. The need to balance generation capacity with peak demand periods, occurring during the daytime during the summer months, requires excess generating capacity that often sits idle. For instance, peaking generator units typically provide the excess generating capacity when needed, but have low capacity factors (utilization factors) around 5% and do not operate as efficiently as larger combined cycle base load power plants⁹.

The traditional one way flow of electricity from large power plant to passive end use creates additional expenses for ratepayers based on the need for excess infrastructure and generating capacity. A version of the simplified traditional utility model with large plants supplying end users is still somewhat in place within California, but

started changing with state demand side programs being implemented by the CEC and DOE in the 1970's. These programs started the process of adjusting end user demand to help minimize the amount of electrical infrastructure needed to maintain the electrical grid. The early demand side management regulations implemented by the CEC, include building energy standards under Title 24 and appliance efficiency standards. End use efficiency programs along with other demand side measures have helped lower and leveled the per capita electricity consumption in California while also reducing the amount of new power plants needed (see *Residential and Commercial Energy White Paper*).

Electricity pricing structures also reduce electricity demand during peak demand periods. Many large electricity consumers are billed largely based on time of use and for on-peak power demand. Under this pricing structure electricity rates vary substantially during the highest usage hours of the summer months. Time of use rate structures have recently become available to residential customers as utility smart meters have been implemented. To help shave energy during peak demand periods, many utilities have created demand response programs that provide financial benefits to customers that install equipment to shave energy use during high demand periods.

The electricity sector in Southern California is undergoing rapid changes with the unexpected shutdown of the San Onofre Nuclear Generating Station along with the repowering of coastal generating plants to meet the state's

POWER CONTENT LABEL		
ENERGY RESOURCES	2013 SCE POWER MIX (Actual)	2012 CA POWER MIX**
Eligible Renewable	22%	15%
-- Biomass & waste	1%	2%
-- Geothermal	9%	4%
-- Small hydroelectric	1%	2%
-- Solar	1%	1%
-- Wind	10%	6%
Coal	6%	8%
Large Hydroelectric	4%	8%
Natural Gas	28%	43%
Nuclear	6%	9%
Other	0%	0%
Unspecified sources of power*	34%	17%
TOTAL	100%	100%

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.

** Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.

For specific information about this electricity product, contact Southern California Edison. For general information about the Power Content Label, contact the California Energy Commission at 1-800-555-7794 or www.energy.ca.gov/consumer.

requirements of the Once-Through-Cooling (OTC) Policy. At the same time, other mandates requiring implementation of more renewable power generation and increasing the amount of electric cars in California are quickly creating additional demands on the electricity system.

Under AB162, utilities are required to disclose the percentage of power from different generation sources that they supply to customers as they progress toward supplying at least 33% energy from renewable generation sources by 2020. As shown in Figure 6, SCE in 2013 supplied 22% from qualifying renewable resources and is currently on track to achieve the 33% target in 2020. In 2003, the Energy Action Plan implemented the states preferred resources for electrical loading order which places priority, respectively, on demand side management, renewable generation, and lastly, additional fossil fuel

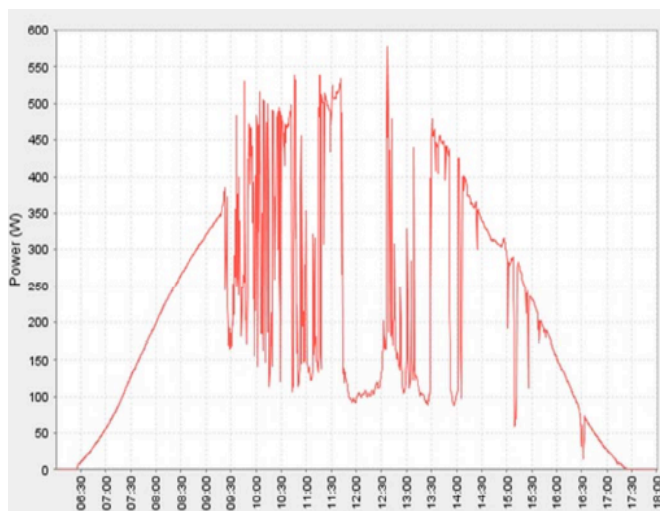
FIGURE 6

Power Content Label for Southern California Edison's Power Supply Mix in 2013

powered generation¹⁰. Other regulations such as California's GHG Cap and Trade Program provide market incentives that promote increased generation efficiencies and the use of renewable fuels.

FIGURE 7

Daily Power Output from Solar Panel Array showing Generation Intermittency from Passing Clouds (Courtesy UC, Irvine)



As higher percentages of variable and intermittent renewable resources are integrated into the electrical grid, matching generation with demand becomes increasingly difficult with traditional grid systems, and can make the electrical grid less reliable. The addition of large amounts of renewable generation often requires resources that can balance the short term intermittency. For photovoltaics and wind generation, this often results from intermittent cloud cover (Figure 7) and varying wind speeds, respectively. Additional resources must be implemented to balance large variable renewable power sources on the larger transmission and utility distribution electrical grids. Figure 8,

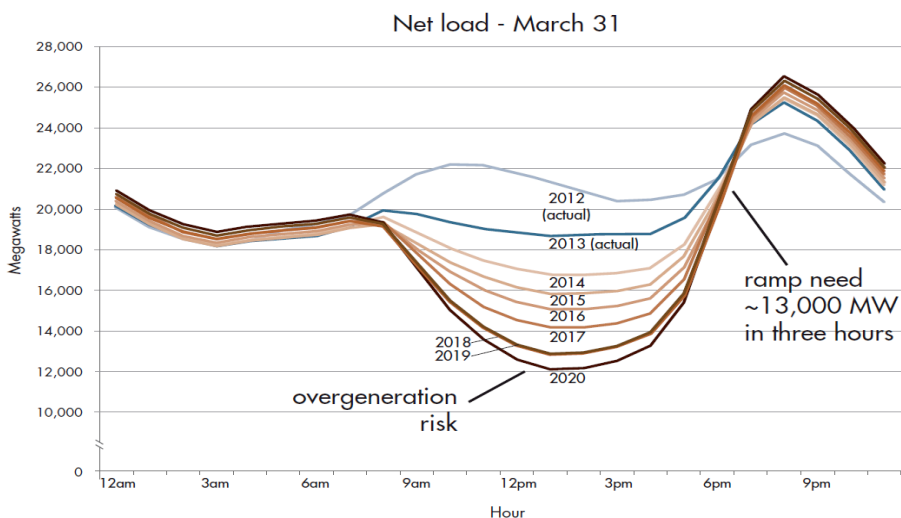


FIGURE 8

shows the actual and projected net generation demand that is required from fossil generation as more wind and solar power are projected to be added to the CAISO transmission electrical grid. Referred to as the "Duck Curve", due to its shape, the primary impact of adding more solar generation requires the output from fossil generation units to significantly decline or idle during the peak daylight hours. The generation units, however, must be quickly dispatchable not only to help balance potential renewable generation intermittency, but also be capable and ready to

"Duck Curve" represents the Net Load which shows the variability in demand and supply that CAISO must balance with controllable flexible resources. The net load represents the load that must be met with flexible and dispatchable resources. The net load subtracts the variable renewable generation from the end user demand. (Source CAISO)

provide the rapid generation ramp needed as the sun sets and system load increases into the evening.

Currently, peaking generation plants and synchronous condensers are being utilized to help provide the flexible and dispatchable resources that help integrate renewable resources into the electrical grid. The peaking generation units help support renewable resources by having fast ramp rates and response times, but negate some of the GHG emissions benefits of using renewables by maintaining reliance on fossil generation. Additionally, increasing the number of startup events along with ramping needs results in slightly higher criteria pollutant emissions from peaking generation units than have been observed from these generators in the past (refer to: UCI Professor Jack Brouwer April 15th Energy Outlook Workgroup Presentation¹¹).

As a result of changes in power plants such as San Onofre closure, along with the planned closure and repowering of additional Southern California coastal power plants, there is a need for voltage support on the local distribution networks. Smaller generating plants and other distributed energy resources are being implemented in a newer grid structure that provides more resilience and less reliance on large traditional generation, and operates with less infrastructure redundancy. Additionally, a change under CPUC Rule 21 is being made to start allowing smart inverters attached to rooftop solar installations to provide grid support services such as voltage support. Allowing the large amounts of rooftop solar inverters to help provide other grid service needs other than energy helps provide cleaner more reliable grid power. In California most inverters installed with rooftop solar panel systems are smart inverters; however, the grid services capabilities, such as voltage support, has been disallowed under outdated grid interconnection requirements that are currently under review¹². Allowing smart inverters to provide grid services has already been implemented in Europe.

New Technologies and Adapting to a Changing Grid Landscape

As mentioned earlier, the traditional electric grid management paradigm has been to add additional generation to match demand with end use customers being passive consumers. It has been shown that demand side management is much less costly than adding generation and provides greater utilization of existing resources^{13,14,15}. Demand side management is increasingly becoming more important as higher amounts of power are derived from renewable generation making it more difficult to match generation with demand¹⁶. Southern California Edison is undertaking a preferred resources pilot program within Orange County that is studying which types of demand side management resources can help alleviate infrastructure needs, in part, due to the San Onofre shutdown¹⁷. Large amounts of renewable power during low demand periods have recently resulted in periods of over-generation that led to negative wholesale market prices¹⁸. New technologies are rapidly being developed and implemented that provide flexible resources to help manage any excess power generated from renewable resources along with reduced load during times of peak demand or high net load ramping needs¹⁶.



To help balance end user demand with generation, households and businesses are increasingly relying on energy management systems that help reduce peak demand charges, can participate in demand response events, and better manage energy loads with onsite generation and occupancy needs. One example of these technologies in the residential sector has been the implementation of Wi-Fi connected smart thermostats that help reduce heating and cooling energy use by using occupancy sensors along with weather forecasts. Other technologies are beginning to utilize utility smart meters with cellular phones to incentivize participation in demand response events (e.g. Ohmconnect.com). These systems also can be registered with utility demand response programs and are being developed to integrate with other electricity end uses.

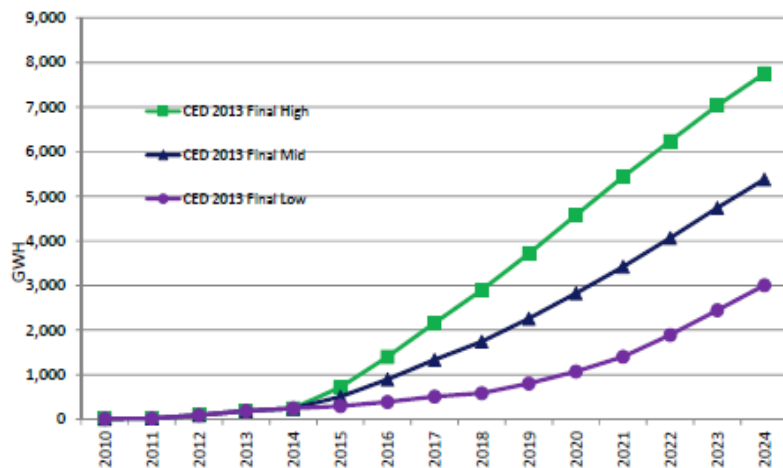


FIGURE 9

Projected Energy Needs by Electric Vehicles in California (*High, Mid, and Low Scenarios*)¹⁹.

One of the largest challenges facing the electricity sector will be integrating increasingly large amounts of power and energy demands from an increasingly electrified transportation sector (*Figure 9*). Traditionally, as shown in *Figure 1*, the transportation sector primarily has relied on liquid fuels and has been separated from the electricity sector. Original implementation designs for the existing electrical infrastructure did not incorporate energy or power requirements for transportation. As increasing numbers of electric vehicles become reliant on the electrical grid for energy needs, incorporating electric vehicles into the grid can be done in a manner that actually helps provide needed grid resources. Demonstrations are being done with managed charging of electric vehicles that synchronize with grid resource needs during periods of over generation and peak usage. Existing utility rules are being reviewed to also allow electric vehicles to provide other ancillary grid services such as frequency regulation, voltage support and reactive power. Managing electric transportation charging in this manner may be done by the site host, local utility, and/or system integrator. Collectively, plugged in electric vehicles can provide significant grid resources when intelligently integrated with the grid. If unmanaged, the integration of transportation energy needs onto the electrical grid will create additional infrastructure needs without benefits to grid stability.

Incorporating large amounts of energy storage will help integrate increasing amounts of renewable generation, better manage demand charges and help reduce infrastructure costs for electric vehicle chargers. Energy storage systems can be deployed on the larger transmission grid, the local utility distribution grids, and behind the meter

applications. Several different technologies are being utilized for energy storage systems which include: batteries, fuel production, flywheels, pumped hydro, and compressed air. Currently the most widely used storage systems utilize different battery chemistries along with using second life electric vehicle batteries. The costs for batteries for both vehicle and stationary storage applications have been shown to be steadily dropping, however, it is often difficult to reliably determine and compare recent prices without a standard methodology. Thus, there is a need to establish a battery price index or energy storage price index as these technologies become more widely used²⁰.

Grid scale energy storage systems are starting to be implemented that replace the need for peaking generation plants. These systems have several advantages over peaking generation units in that they have high utilization capacity factors, zero emissions, and are easier to site. As more renewable generation is integrated, and over generation becomes more prominent, the excess power may be used to electrolyze water to form hydrogen and oxygen. The hydrogen can then be stored nearby and used for transportation applications, power generation, integrated into the natural gas pipelines, and/or used to develop synthetic fuels. The application of hydrogen in natural gas pipelines is being demonstrated in Europe.



Greentechgrid: Nov. 2014

Behind the meter storage systems are being used to help offset peak demand charges, provide backup power when needed, integrate vehicle chargers with existing infrastructure, and off grid applications. As many residences and businesses are under time of use utility rates, the storage systems can provide arbitrage opportunities for the residents and businesses to utilize low electricity costs during off peak hours and use the stored power during high priced periods "on-peak"²¹. Behind the meter applications also include backup power and in many applications may reduce or eliminate the need for backup generation units and, when coupled with renewable generation under high utility rates, may become a cost effective technology for off grid solutions²².

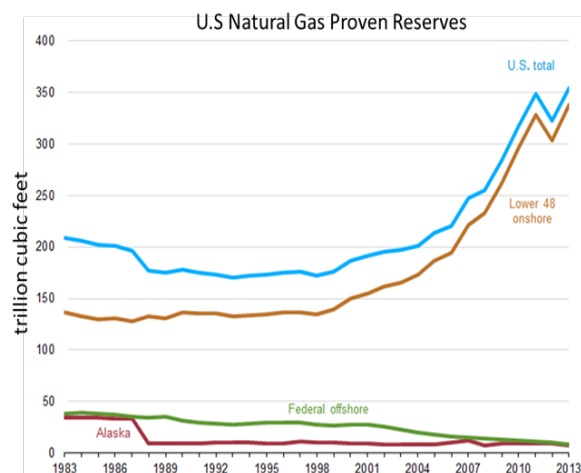


FIGURE 10

Increase in U.S. Natural Gas Proven Reserves over Time⁶.

b. Natural Gas

Within the United States the natural gas supply has gone from a possible need for imports to that of ample supply and declining prices. This is a result of technological developments in exploration, drilling, and

well stimulation that have increased recoverable reserves within the United States (Figure 10). The increase in supply and resource base has driven natural gas prices down to a recent \$3 per thousand cubic feet in May 2015, 60% lower than in May 2008 when reserves started to dramatically increase. In 2008, an estimated \$3 billion worth of natural gas was consumed in the residential and commercial sectors Basin wide.

In the Basin, the natural gas distribution infrastructure provides the primary fuel used for electricity generation along with cooking and heating needs in the residential and commercial sectors and process heating in the industrial sector (Figure 11; also see Residential and Commercial White Paper). Within California, the majority of

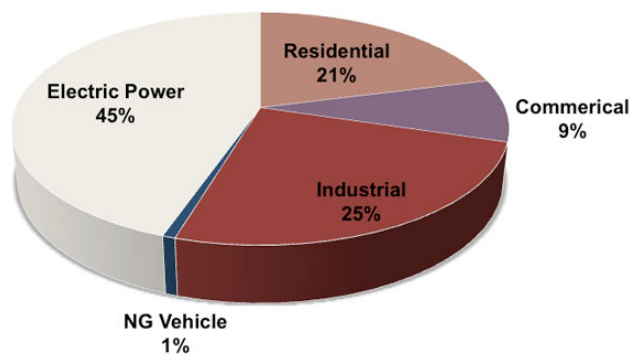


FIGURE 11

California Natural Gas Demand by Sector in 2012 (CEC Energy Almanac)

non-renewable power generation derives from natural gas powered generation. This is, in part, due the increased generating efficiency that natural gas combined cycle power plants provide over traditional steam boilers that helps provide overall emission benefits relative to other fuel choices⁹. Additionally, natural gas when combusted has lower particulate matter formation relative to other fuels with complex carbon molecules. This property allows for lower particulate matter emissions than other fuel choices and, when used in heavy duty transportation applications, does not have the associated toxicity of diesel fuel combustion.

Natural gas has an existing pipeline infrastructure that makes it easily transportable, is often a lower energy cost option, and can often provide GHG and criteria emissions benefits over petroleum and coal. However, methane, the primary component in natural gas, has a long atmospheric lifetime of 10 to 14 years, whereas, other hydrocarbons have atmospheric lifetimes from hours to days. Therefore, the fugitive releases of methane within the Basin do not contribute to photochemical production of ozone or secondarily formed particulate matter as result of short residence times in the Basin and long atmospheric lifetimes. However, on a global scale, the atmospheric levels of methane do contribute to increased global background levels of ozone as well as being a potent GHG.

Using natural gas can provide reduced end use carbon dioxide emissions as a result of methane having a higher hydrogen to carbon molecular ratio than every other hydrocarbon. Combustion of methane therefore releases less CO₂ on a weight per weight basis relative to other hydrocarbons²³. However, the direct end use GHG emission benefits from natural gas can be negated or reversed from upstream fugitive releases of methane into the atmosphere. Further efforts and research are needed to minimize



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fugitive methane emissions along the entire natural gas production, distribution, and end use chain²⁴. Due to the high climate forcing impacts from methane, the fugitive emissions of methane need to be better understood and further incorporated into the lifecycle analysis.

The greatest GHG benefits from methane use are realized from renewable sources. There are many different supply streams of renewable methane that include landfills, wastewater treatment plants, and food waste and manure digesters. Difficulties recovering renewable sources of methane include the implementation of clean and efficient systems that separate methane from other impurities in a cost effective manner. The SCAQMD Clean Fuels program along with other state agencies' programs have helped develop and demonstrate technologies to clean up renewable methane waste streams for power generation and transportation uses. Although these technologies are being implemented, it is currently unclear how much renewable methane might be cost-effectively recovered within the Basin from the many different waste streams.

New Technologies and Uses

The natural gas distribution system in California is slightly constrained during the winter month periods when more natural gas is required for heating purposes²⁵. During these months underground storage helps provide natural gas during peak demand periods. Much like electricity generation constraints during peak summer demand periods, the natural gas pipelines require a similar balancing technique during times of high usage in the winter months. Within Southern California, there is currently over 140 billion cubic feet of underground storage using depleted reservoirs that help balance Basin natural gas needs between seasons of high use and high prices with seasons that have lower prices and lower natural gas demands.

As mentioned earlier, methane use in California will increasingly be derived from renewable sources. Several technologies will likely become more prominent; these include^{11,26}:

- Technologies, such as pressure swing adsorption that help scrub the natural gas from different waste streams.
- Developing natural gas from excess renewable power generation (power to gas).
- Increasing use of natural gas for stationary and transportation fuel cells.
- Using oxy generation systems for combustion processes without pollutant emissions.
- Ultra low NOx heavy duty compressed natural gas (CNG) engines.

c. Liquid Fuels

In the Basin, the primary use of liquid petroleum fuels is for transportation purposes. In 2008 over 7.3 billion gallons of gasoline and 1.4 billion gallons of diesel were consumed within the Basin with a combined estimated cost of \$32 billion dollars (2012 AQMP). Of all the different energy types, the gasoline and diesel fuels often have more significant price volatilities as a result of variations in global crude prices, refinery capacity issues, and overall supply for California blended fuels⁴ as shown in Figures 12 and 13. Supply issues for California

reformulated gasoline can result in prices for California gasoline being decoupled from crude oil market prices and gasoline prices in the rest of the nation, Figure 13.

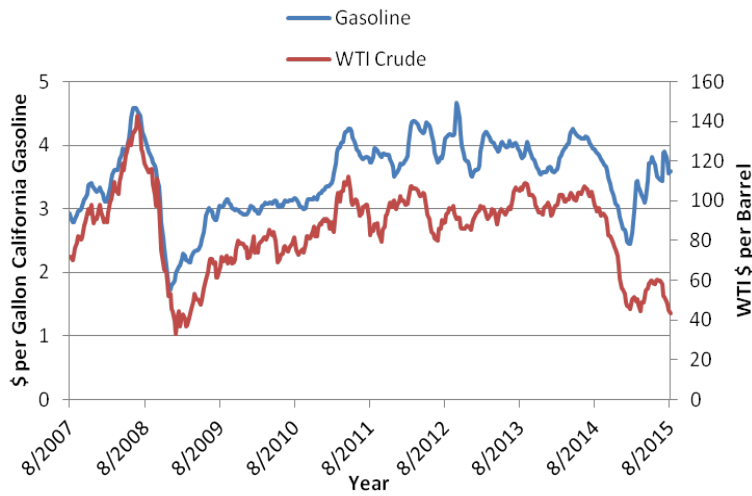


FIGURE 12

Average Weekly Market Price between a Gallon of California Gasoline and WTI Crude
(CEC Energy Almanac and EIA)

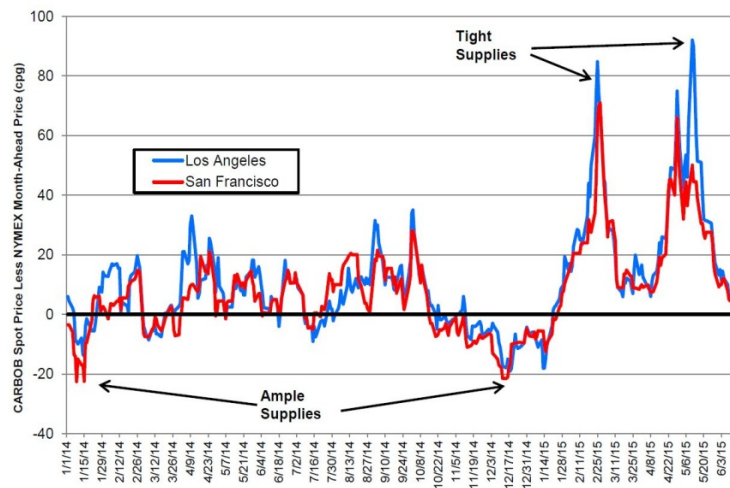


FIGURE 13

Recent High Market Premium (in cents) on California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB) minus the NYMEX national price
(CEC Petroleum Watch July 15, 2015)

As previously shown in Figure 2, the use of liquid fuels currently result in the highest emissions of NO_x and is the largest contributor to GHG emissions within the Basin. A large transformation is needed within engine technologies to lower NO_x emissions from transportation sources. As shown in Figure 2, diesel use results in significant NO_x emissions, particularly within the heavy duty and off-road engine categories. As outlined within the Goods Movement, On-Road and Off-Road white papers, new technologies are needed to improve engine emissions and drive train efficiencies to reduce NO_x along with GHG levels²⁷.

Continued use of liquid fuels will increasingly require climate friendly fuel use pathways that, in part, include more efficient end use technologies. Overall GHG emissions need to be considered, not only at the tailpipe but also by using a full well to wheels emissions analysis that accounts for fuel production and distribution. This is currently implemented within the Low Carbon Fuel Standard (LCFS) to determine the carbon intensities of different fuels by reviewing the lifecycle analysis of bio-fuels along with other low carbon intensity alternative fuels. A similar analysis can also consider the associated lifecycle emissions of criteria and toxic pollutant emissions but is currently not part of the LCFS program. Unfortunately, the majority of bio-fuels produced still have a positive GHG impact and the upstream emissions associated with traditional oil and gas recovery are still relatively uncertain²⁸. The use of bio-fuels can provide a partial solution to GHG reductions, particularly in applications that don't have alternative technologies available such as aircraft. However, the limited availability of fuel feed stocks, land use considerations, weather variability, and potential negative impacts upon food prices are all issues that should be addressed as bio-fuels develop as part of the solution in reducing GHG emissions.

d. Other Energy Choices

As newer technologies such as fuel cells become more widely available for power generation and transportation, the supply of alternative energy sources will become more important. Partially discussed in earlier sections, these energy sources will include renewable fuels such as biodiesel, ethanol, and waste woody biomass. Some of these renewable fuels may be produced from algae that sequester CO₂ from power plant emissions that are then converted back into fuels used again at the power plant (See: *SoCal Gas, Ron Kent's April 15th Energy Outlook Workgroup Presentation*²⁶).

Other energy supply choices that will be produced from different feed stocks and energy sources are fuels that do not occur naturally in pure form such as hydrogen and dimethyl ether (DME). The production of these fuels will help provide emission benefits but may also be produced to help integrate increasingly larger percentages of renewables onto the electrical grid, provide renewable energy streams for transportation, and use existing infrastructure for transport and delivery.

In 2015 the first fuel cell vehicles for purchase were introduced in California from Toyota and Hyundai. As these vehicles are being introduced, supplies of hydrogen and fueling infrastructure is needed to support their operation. Using hydrogen as an energy source produces water as a byproduct in fuel cell applications.

Additionally, the fugitive release of hydrogen into the atmosphere does not have an impact on climate, criteria pollutants, or toxic risk.

Although the end uses of hydrogen are generally considered zero-emission, the sources of hydrogen fuel and the associated emissions to generate hydrogen can vary significantly. Currently, the largest supply of hydrogen within California comes from steam reformation of hydrocarbons. Methane currently is widely used as the hydrocarbon source for production of hydrogen; however, other compounds such as methanol have been utilized for onsite reformation and fuel cell systems. Unfortunately the reformation process emits CO₂ as a byproduct which can be mitigated by using renewable sources, or possibly by future carbon capture technologies such as algae systems.

Production of hydrogen can also occur through the electrolysis of water. As mentioned within the electricity section, the implementation of renewable generation will result in periods of overproduction relative to real time demand. Rather than curtail the production of power, the excess energy can also be stored by producing fuels. Hydrogen generated during periods of excess power through electrolysis of water, referred to as "power to gas", can be utilized by fuel cells during periods of high electrical demand or within the transportation sector. During the electrolysis process, hydrogen and oxygen are produced, and the oxygen might also be recovered and used at nearby peak generation units using zero-emission oxy combustion technologies (*see natural gas emerging technologies section*). Additionally, the hydrogen produced renewably through this process might eventually be blended with natural gas and added into the distribution pipelines. It is also possible to use the hydrogen produced with waste CO₂ streams to produce synthetic natural gas along with other hydrocarbons.

While it is currently not possible to track the amount of hydrogen being produced from different sources within the Basin, the implementation of both stationary and transportation fuel cells along with implementing clean pathways to develop large quantities of hydrogen needs to be closely monitored and supported.

VI. Scenario Analysis

Studies have been conducted to show how new technologies can help achieve both air quality and climate goals. For example, there have been several studies conducting "back casts" on the state energy sectors to identify potential pathways to achieve the 2050 GHG targets^{29,30,31}. Achieving the GHG state targets will have the co-benefit of criteria pollutant reductions. The scenario case shown in Figure 14 uses the 2016 AQMP baseline inventory and applies two variations of the Governor's 2030 target reductions of 50% reduced petroleum use, a 50% increase in existing building energy efficiency, and a 50% renewable portfolio standard. Under SB 350, the 50% increase in building efficiency and 50% renewable energy production by 2030 are being set into law. The potential impact on NO_x reductions from these targets is represented as Scenario #1 in Figure 14. Further implementing the 50% reduction in fossil fuels in addition to the other two targets, represented as Scenario #2 in Figure 14, results in the largest potential NO_x reductions. In both scenarios, a linear implementation of the 50%

targets is assumed along with a linear and proportional reduction in criteria pollutants applied to the forecasted inventory years (2012, 2023, and 2031).

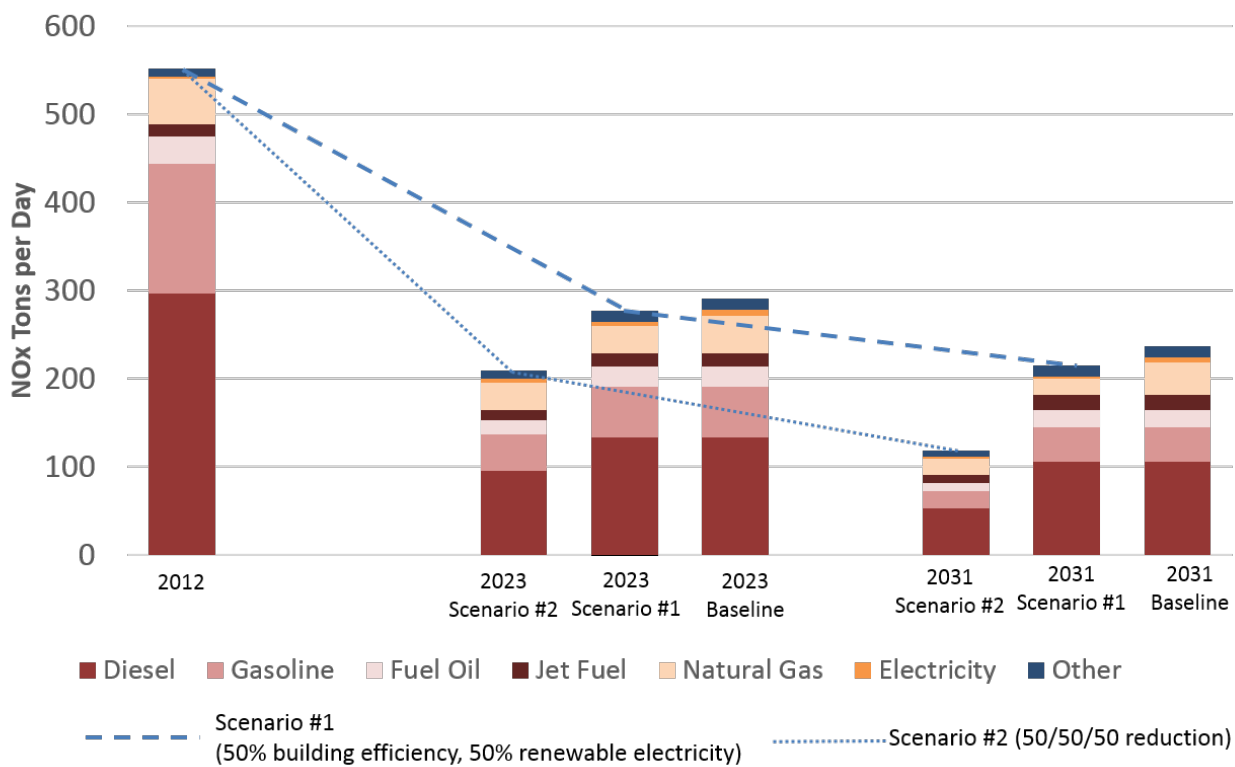


FIGURE 14

Potential Impact on 2016 AQMP Inventory from Scenarios Implementing 50% Reduction in Existing Building Energy Usage, 50% Renewable Power, and in Scenario #2, 50% Fossil Fuel Reduction by 2030. Dashed Lines show Reductions in NOx from Applied Scenarios over 2016 Baseline Inventory

In Figure 15, the two “50% reduction” scenarios are shown again in relation to the NOx levels needed for attainment and 2016 AQMP baseline inventory. The two scenarios shown in Figure 15 provide the potential for significant NOx reductions, but do not meet the projected NOx carrying capacities for ozone attainment in 2023 and 2031. Further NOx reductions will be needed above and beyond these scenarios designed primarily to make progress towards the state’s 2030 GHG targets. However, the NOx reductions that might be achieved through the Governor’s 50/50/50 targets provide significant progress towards the ozone standards.

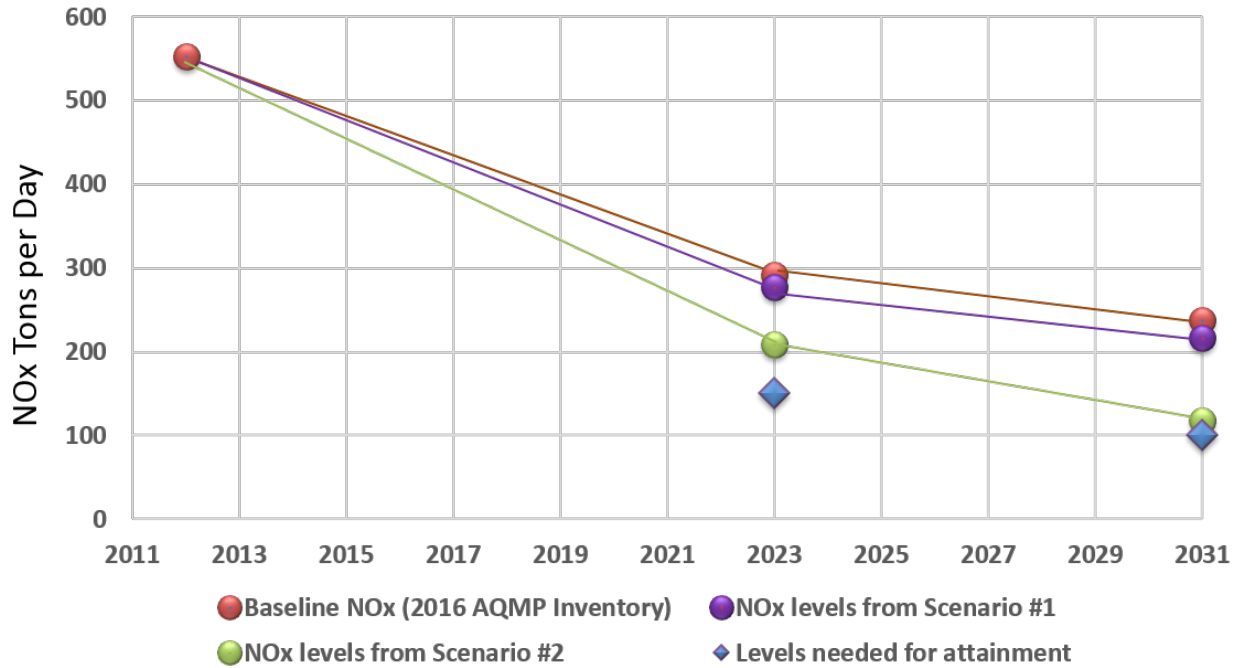


FIGURE 15

Basin NOx Levels showing Projections for Future Years from 2016 AQMP Inventory (red), Future NOx levels with Scenario #1 50% Increase in Building Efficiency and Renewable Power Generation by 2030 (purple), Scenario #2 showing Significant NOx Reduction when 50% Fossil Fuel Reduction is included. Diamonds (blue) show NOx Levels Needed for Attainment of Federal Ozone Standards.

VII. Findings and Recommendations for 2016 AQMP

Southern California is facing challenges in providing its residents with clean air, clean and sufficient supplies of water, affordable and reliable energy, and efficient transportation options. The traditional energy landscape is rapidly changing to incorporate new technologies that alleviate resource challenges, are adaptable to match changing demand profiles, and provide more efficient use of energy with fewer emissions. To increase resilience and provide leadership in reducing greenhouse gas emissions while addressing looming air quality deadlines, the changes occurring within the energy sector are providing opportunities and pathways to achieve these goals.

As part of the 2016 AQMP, staff is recommending consideration of the following actions:

Electricity:

- Monitor the implementation of increasingly large electrical energy demand from electric transportation. Promote the demonstration and development of technologies that minimize the emission impacts of adding electric transportation while reducing infrastructure needs.
- Support the development of a battery price index and/or energy storage index to provide clarity on recent storage prices.
- Support development and demonstrate energy storage applications and the benefits they can have on reducing the need for additional fossil generation units and/or increased start up/shutdown/ramping of existing peaking units.
- Review and develop programs for increased demand side management implementation and for technology development with an additional focus on emission benefits.

Natural Gas:

- Further study the potential supply of renewable natural gas from applicable waste streams, such as waste water treatment plants, in the Basin.
- Implement new technologies such as fuel cells that use reformation and can provide high efficiencies through combined heat and power applications. Use these technologies to help integrate the transportation sector, to provide grid services, and as a potential replacement for backup generation units.
- Work with utilities and other energy developers to review the integration of the natural gas system with power generation and the further implementation of renewables.
- Assess the development of oxy combustion power generation systems.

Liquid Fuels

- Consider criteria pollutants in the well to wheels lifecycle analysis of fuels. This analysis would include criteria and toxic emissions associated with flaring at well sites, processing, and delivery.
- Promote the development of renewable fuels that provide criteria pollutant emission reductions as well as GHG benefits.

Other Fuels

- Support the development of an index that monitors of the amounts of hydrogen used in transportation along with a price tracking monitor for costs associated with different hydrogen producing technologies.
- Continue to demonstrate and promote renewable energy sources that provide criteria pollutant reductions as well as GHG reductions.

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**SOUTH COAST
AIR QUALITY
MANAGEMENT DISTRICT**

SOUTH COAST AQMD • 21865 COPLEY DR • DIAMOND BAR, CA 91765 • (909) 396-2000 • 800-CUT-SMOG (288-7664)



SOUTH COAST
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Industrial Facility Modernization



2016 AQMP WHITE PAPER

NOVEMBER 2015

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Jill Whynot
Assistant Deputy Executive Officer
Planning, Rule Development & Area Sources

Authors

Susan Nakamura – Director of Strategic Initiatives
Ed Eckerle – Program Supervisor

Contributors

Mohsen Nazemi – Deputy Executive Officer (*Engineering*)
Amir Dejbakhsh – Assistant Deputy Executive Officer (*Engineering*)

Reviewers

Barbara Baird, J.D. – Chief Deputy Counsel
Megan Lorenz – Senior Deputy District Counsel

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Introduction

The South Coast Air Quality Management District (SCAQMD) is preparing the 2016 Air Quality Management Plan (AQMP) to demonstrate how the region will reduce air pollution emissions to meet federal health-based standards for ground-level ozone and fine particulates (PM_{2.5}). The 2016 AQMP will require challenging policy decisions regarding the control strategies that will bring our Basin into attainment of federal air quality standards. NO_x emissions are a precursor to both ozone and PM_{2.5} formation, and modeling analysis demonstrates that significant NO_x reductions are necessary for ozone attainment, while providing substantial benefits towards achieving the PM_{2.5} standards. Reductions in directly emitted PM_{2.5} will also be important to ensure PM_{2.5} attainment.

The Basin's air is much cleaner today than it was 20 years ago. Air pollution has improved despite significant long-term growth of the population, the regional economy, and vehicle miles traveled. While mobile sources are responsible for the majority of emissions in the Basin, these sources do not represent all of the emission reductions needed to demonstrate attainment of federal air quality standards. Comprehensive attainment strategies containing both mobile and stationary source measures will be needed in order to meet the standards. While stationary source emissions have been significantly controlled over the years, there are still opportunities to produce additional emission reductions. One such opportunity is through the replacement of older higher emitting combustion sources used at stationary sources with zero or near-zero emitting sources, or by encouraging the siting of new businesses in the Basin that utilize or produce these technologies. The Industrial Facility Modernization White Paper identifies and discusses efforts to incentivize existing stationary sources to replace higher-emitting, older equipment to cleaner, zero or near-zero emission equipment, as well as efforts to encourage new, cleaner facilities manufacturing and using zero or near-zero emission technologies.

Scope of this White Paper

This White Paper focuses on NO_x and concurrent PM emission reductions, consistent with the needs of the 2016 AQMP. Concepts to incentivize facility modernization apply to all stationary sources including new and existing stationary sources ranging from an individual piece or pieces of equipment at a facility or the entire facility. In addition, the scope of this White Paper includes mobile sources as they relate to a facility. For example, this paper considers mobile sources that are used at a stationary facility such as forklifts, and the potential use of mobile source offsets for permitting new stationary sources can contribute to emission reductions.

There are a variety of approaches to directing businesses towards the goals of facility modernization. The primary approach that this paper considers is incentives. Using an incentives-based approach will encourage businesses to make choices that will reduce emissions while minimizing impacts. An incentives-based approach is also consistent with comments that the SCAQMD staff received regarding business retention, particularly in regards to replacing older higher-emitting equipment with new lower-emitting equipment.

Objectives of Industrial Facility Modernization

The overall objective of this White Paper is to identify mechanisms to incentivize businesses to choose the cleanest technologies as they replace equipment and to provide incentives to encourage businesses to move into these technologies sooner. Although replacement of older, higher emitting sources is expected to have the greatest potential for emission reductions, providing incentives and eliminating barriers for new sources to manufacture and use ultra clean technologies is also an important aspect of this white paper.

Industrial Facility Modernization can result in substantial emission reductions, especially if the cleaner equipment is at zero or near-zero emission levels. Efforts to encourage clean manufacturing facilities to site and operate in the Basin can result in emission reduction benefits as well as other co-benefits to the local economy, particularly to the surrounding community. Consistent with the scope of this White Paper, there are three objectives to Industrial Facility Modernization:

1. Provide incentives to replace older higher-emitting equipment with newer lower emitting equipment, which can apply to a single source or an entire facility.
2. Provide incentives for existing businesses to implement zero and near-zero emission technologies throughout their operations.
3. Encourage new businesses that use and/or manufacture near-zero and zero emission technologies to site in the Basin.

The following provides a more detailed description of each of these three objectives and some background information.

Objective 1: Provide incentives to replace older higher-emitting equipment with newer lower emitting equipment, which can apply to a single source or an entire facility

The basis of this objective is to encourage businesses to replace older higher-emitting equipment with lower emitting equipment earlier than would occur due to natural turnover by providing incentives. Under the SCAQMD's Regulation XIII – New Source Review, new equipment must be permitted with Best Available Control Technology, which is the cleanest demonstrated level for a specific equipment category, for a specific fuel or energy type. In general, SCAQMD's regulatory program allows equipment to reach its useful life and it is the decision of the business owner when the equipment will be replaced. The purpose of this objective is to realize emission reductions sooner, than would otherwise occur without incentives. Encouraging zero and near-zero emission technologies is always a goal, however, it is not the purpose of this objective and is the primary purpose of Objective 2. In addressing this objective, this White Paper will identify potential hurdles that may be preventing an owner from replacing older, higher emitting equipment and incentives that can better encourage a business owner to replace an older piece of equipment sooner. Replacing equipment sooner would provide NOx and PM emission reductions at a faster pace, and in some cases can provide reductions beyond those required under New Source Review.

Objective 2: Providing incentives for existing businesses to implement zero and near-zero emission technologies throughout their operations

The concept of this objective is to promote the use of zero- and near-zero emission stationary and mobile source technologies at stationary source facilities. For stationary sources, there may be opportunities for using zero or near-zero technologies. For mobile sources, there are a variety of zero and near-zero mobile source technologies, such as electric forklifts and yard hostlers that can be used instead of traditional diesel equipment. In addressing this objective, this White Paper will identify potential applications of zero and near-zero technologies and mechanisms to incentivize the use of these technologies at stationary source facilities. Replacing equipment with zero or near-zero emission stationary and mobile source equipment can reduce NO_x and PM emissions. In addition, an advantage to implementing zero emission technologies is the higher degree of certainty that no further reductions or equipment replacement would be required by future regulations. Over the years, the SCAQMD staff has received comments from regulated businesses regarding the lack of certainty regarding future regulatory efforts, which is inherently difficult to predict given changes in air pollution standards and advancement in pollution control technologies. Businesses that implement zero-emission technologies will have a high level of certainty that no additional emission reductions would be required. In most cases, these emission reductions will occur earlier than might otherwise be required and will go beyond emission reductions required under New Source Review for stationary sources and existing regulatory programs for mobile sources.

Objective 3: Encourage new businesses that use and/or manufacture zero and near-zero emission technologies to site in the Basin

The purpose of this objective is to identify mechanisms to encourage new businesses that are using or producing zero and near-zero emission technologies to site in the Basin. In addressing this objective, this White Paper identifies incentives to attract new businesses that are employing the cleanest operations and/or producing those ultra clean technologies that will be needed to meet attainment goals. Although this objective focuses on new businesses that are using or manufacturing zero and near-zero emission technologies, it is possible that incentives can be provided to other existing businesses that are expanding in these areas. Incentives can include assistance during California Environmental Quality Act (CEQA) review, or lower permitting, permit renewal and emission fees, etc. This objective has the potential for long-term benefits to encourage ultra clean facilities to site in the Basin and incentivizing technologies that are needed to meet attainment goals.

Hurdles and Past Efforts

Implementing ultra clean technologies at stationary sources has its hurdles, some more challenging than others to overcome. It is important to understand these potential hurdles since some incentives to encourage implementing clean technologies can be designed to minimize them. The following provides a summary of key hurdles and barriers as they relate to meeting the objectives of this White Paper.

Cost

Cost is likely one of the key considerations when replacing existing equipment and/or adding pollution controls. The decision of when to replace existing equipment can vary; some operators may replace equipment when it is no longer operable, while other operators may replace equipment well before it reaches that point to avoid breakdowns or to lower operating or maintenance expense. Regardless, equipment replacement and/or pollution controls represent a financial decision where the operator must account for the capital cost to purchase new equipment, installation, operating and maintenance costs.

The SCAQMD has implemented several funding programs to help facilitate specific technologies and compliance with SCAQMD rules. One such effort involved the establishment of the Rule 1470 Risk Reduction Fund in May 2012. This fund was adopted by the AQMD Governing Board to set aside \$2.5 million to offset the cost of purchasing diesel particulate filters for new diesel emergency standby engines as required under Rule 1470 - Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines. Another grant program, the Dry Cleaner Financial Incentive Grant Program, was designed to assist local dry cleaners in switching to non-perchloroethylene dry cleaning systems to comply with Rule 1421 - Control of Perchloroethylene Emissions from Dry Cleaning Systems. Up to \$20,000 was available for CO2 machines and \$10,000 for water-based systems. For a limited time, \$5,000 was available for hydrocarbon machines. Since 2008, the program has provided approximately \$265,000 to local dry cleaners to upgrade their systems. In addition, there are several existing incentive programs which help promote higher efficiency and lower emitting technologies such as: the Lawn Mower and Leaf Blower Exchange; the SOON Program; the Carl Moyer Memorial Air Quality Standards Attainment Program; MSERC Credit Programs; and the Voucher Incentive Program.

New Source Review

New equipment requiring an SCAQMD permit to operate must meet the requirements of Regulation XIII – New Source Review (NSR) and Regulation XX – RECLAIM (if at a RECLAIM facility). The SCAQMD's Regulation XIII and Regulation XX, require applicants to use Best Available Control Technology (BACT) and provide emission offsets for new sources, relocated sources, and for modifications to existing sources that may result in an emission increase of any nonattainment air contaminant. SCAQMD's NSR program also 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.

Offset Issues

For smaller emitting sources, their offset requirements are covered programmatically by the SCAQMD. NO_x and SO_x for RECLAIM sources are offset through RECLAIM Trading Credits, or RTCs. One of the main issues that has been raised in regards to Industrial Facility Modernization involves NSR and the discounting of ERCs when they are created, the current availability and price of ERCs, and the concern that there will be a lack of ERCs generated in the future. The shortage and cost of ERCs continues to be an issue raised by stakeholders as an obstacle to siting new facilities in the district. For an extreme ozone non-attainment region such as the South Coast Air Basin, the stationary source reduction opportunities to generate ERCs is diminishing due to continued SIP reduction commitments. Currently available ERCs in the open market derive primarily from banked facility shutdown credits. Furthermore, costs for ERCs from privately held firms have increased.

In 2009, the SCAQMD staff hosted a series of New Source Review (NSR) Working Group Meetings to discuss the availability and price of offsets needed for permitting new and modified stationary sources under the SCAQMD's NSR program. The purpose of the NSR Working Group Meetings was for the SCAQMD staff to work with businesses, environmental groups, community representatives, and other government agencies to develop near- and long-term solutions to address the availability of NSR offsets, as well as other NSR implementation issues. Permitting and NSR in particular were recognized as a potential barrier to equipment modernization and encouraging new cleaner facilities to locate in the Basin. The SCAQMD staff formed a Working Group of interested partners to work with SCAQMD staff and other stakeholders to develop solutions to these problems and other NSR issues.

The guiding principles behind the NSR Working Group efforts were to:

- Maintain BACT requirement for all new and modified sources;
- Produce real, quantifiable, enforceable, surplus, and permanent offsets;
- Promote facility modernization;
- Encourage innovative clean technologies; and
- Administrative efficiency

Permitting

There are currently over 68,000 permitted pieces of equipment or processes in the Basin. On average, the SCAQMD receives 6,000 permit applications annually. Applications include those for new equipment, existing equipment operating without a permit, modifications, relocations, change of conditions and change of operator. Some permit applicants have expressed concern regarding the length of time it takes to process permits. As a result, the SCAQMD established a Permit Streamlining Task Force to streamline permit processing in the 1990's. In 2012/2013 the SCAQMD staff further investigated concepts for permit system modernizing.

SCAQMD Permit Streamlining Task Force

A new Permit Streamlining Initiative to further improve permitting efficiency was developed. In April 1998, the Permit Streamlining Task Force (PSTF) subcommittee, including Governing Board members, industry representatives, local government representatives, environmental groups, and SCAQMD staff, was launched to brainstorm new ways to expedite permitting and improve customer service. Thirty-seven recommendations were made which incorporated various mechanisms to improve the permitting process. These recommendations were grouped into the following 4 Categories:

- Reduce steps required to issue permits;
- Improve communications internally and externally;
- Optimize permit structure and systems; and
- Enhance management and organizational effectiveness

These recommendations were or are continuing to be implemented. However, additional mechanisms are being developed that introduce new streamlining approaches to the permitting process. These include:

- Establish standardized permits for specific equipment types (e.g., lithographic printing, Rule 1166 soil remediation equipment);
- Expand registration and certification programs;
- Online filing of applications;
- Online payment of fees; and
- Reduction of permit processing bottlenecks through the incorporation of a de-centralized process

In addition to the primary work of the Permit Streamlining Taskforce, the SCAQMD evaluated the development of a modified or new permitting program in 2012/2013 to meet the region's evolving air quality and economic needs, including incentivizing the use of new, lower emitting technologies, manufacturing of such clean technologies within the region, addressing availability issues associated with emission offsets for new or modified sources, and reducing administrative burdens while providing equivalent or better protection of public health.

Three concepts were proposed which included:

- Incentivize the permitting of advance clean equipment by reducing recordkeeping, monitoring, and permit fees and requiring registration in lieu of permits;
- Establish an advance technology offset reserve that would be funded by a limited pool of emission offset credits from AQMD internal bank; and
- Include an emission reduction credit calculation method which incentivizes process changes that reduce emissions

Regulatory Certainty

The issue of regulatory certainty has also been raised as a potential impediment to installing state-of-the-art pollution controls. Operators have commented that they want some assurance that if they are investing in pollution controls, that they can define, plan for, and amortize their costs without future regulatory requirements leading to additional costs. In addition, other business representatives have expressed concern regarding additional regulations that can result in stranded assets, meaning that a future regulatory requirement could result in removal and/or replacement of existing pollution controls that have not met their useful life.

The SCAQMD staff is sensitive to the cost of pollution controls and amendments to rules that may require new or different pollution control strategies. The SCAQMD staff fully considers previous requirements and the useful life and cost of previously required equipment when amending rules, and strives to develop rules that avoid stranded assets. One example is Rule 1421 for dry cleaning, which allowed operators to phase out old equipment based on the expected useful life of the equipment.

At the October 2, 2015 Governing Board meeting, several Board Members emphasized the importance of business certainty, particularly for those businesses that make early investments in state-of-the-art pollution controls. The SCAQMD will be developing policies to address this issue to provide better certainty to businesses as they make investments in zero or near-zero emission technologies or pollution controls. This will assist with Facility Modernization.

California Environmental Quality Act

Some business representatives have commented that the California Environmental Quality Act (CEQA) is a hurdle to implementing new projects because of the length of time to prepare and approve a CEQA document, and other issues that can slow the approval process that are not related to an environmental issue. Under the California Environmental Quality Act (CEQA), discretionary projects with potentially significant adverse environmental impacts are required to prepare an environmental document. This applies to all permitting projects where the Executive Officer has discretionary approval of the permits. For other discretionary projects, such as land use projects, the SCAQMD can be a commenting agency and/or a responsible agency in situations where there are permitted sources involved. Environmental documents include those where there are either no significant environmental impacts or potentially significant environmental impacts are mitigated such as a Negative Declaration or Mitigated Negative Declaration. Environmental documents for projects where impacts are potentially significant can require an Environmental Impact Report or Environmental Assessment. Although most permitting projects do not require preparation of a CEQA document by the SCAQMD, there are some projects where a CEQA environmental document is needed and the SCAQMD is the lead agency responsible for approval. For land use projects, a CEQA document is almost always required and depending on the complexity of the land use project and the degree of controversy, the CEQA process can be lengthy.

Mechanisms to Incentivize Industrial Facility Modernization

Through the years, a variety of incentives to encourage Industrial Facility Modernization have been implemented, such as exempting electric equipment from permitting, implementing measures to streamline permit processing for cleaner equipment, use of short-term mobile source credits, mitigation fee programs, the Air Quality Investment Program (AQIP), and emissions averaging provisions in rules. The incentive programs, which include incremental funding or subsidies, are designed to promote voluntary introduction of new technologies on an accelerated schedule. These programs may also provide manufacturers with incentives to accelerate the development and deployment of cleaner technologies.

Based on input from some Working Group members, the SCAQMD staff has compiled a list of potential incentives to encourage businesses to use zero- or near zero technologies or enhancements to the SCAQMD's existing programs to reduce or eliminate hurdles to implement state of the art technologies. The list below represents an "initial list" of potential concepts to encourage Industrial Facility Modernization. The purpose of this list is to initiate the discussion regarding the types of programs and incentives that can be further explored as part of the 2016 AQMP. It is expected that as the SCAQMD staff and stakeholders further explore incentives for Industrial Facility Modernization, additional concepts may be identified while others may be removed. By providing this initial list of incentives, the SCAQMD staff is not endorsing any specific incentive. However, the SCAQMD staff is committed to further investigating the concepts. This White Paper will discuss the following categories of incentive mechanisms:

- **Incentive Funding:** The concept of incentive funding involves the creation of economic incentives to reduce the cost and encourage businesses to replace their existing high emitting equipment with equipment that is zero- or near-zero emissions. It includes mechanisms such as rebates, grants, and loans
- **Permitting and Fee Incentives and Enhancements:** Permitting and fee incentives and enhancements would include the expansion of the existing equipment certification program and pre-approved permit program to include additional equipment categories. Incentives involving reduced permitting fees for advanced technologies which significantly reduce emissions as well as other permitting enhancements identified as part of the 2012/2013 priority projects are also discussed in this incentive approach.
- **NSR Incentives and Enhancements:** The mechanism of credit offsets and NSR incentives includes expanding the number of exemptions under Rule 1304 - Exemptions and expanding the use of the priority reserve under Rule 1309.1 - Priority Reserve. In addition, this mechanism includes the adoption of a Clean Air Investment Fund and the concept of short-term leasing of offset credits.
- **CEQA Incentives:** CEQA incentives will focus on mechanisms the SCAQMD staff can affect in the CEQA process, such as expedited review. There are other incentives that are possible, however, they may require legislative changes.

- **Branding Incentives:** The concept of branding incentives is to publicly recognize businesses that are going beyond regulatory requirements and/or are implementing/producing zero or near-zero emission technologies. Branding incentives can range from recognition awards to specific labeling or certification.
- **Recordkeeping and Reporting Incentives:** The concept of incentives for recordkeeping and reporting is to reduce certain recordkeeping and reporting requirements, where applicable, for specific zero and near-zero emission technologies.

Incentive Funding

Mechanisms that provide funding or loans to stationary sources can incentivize Industrial Facility Modernization. Incentives may include grants for new purchases of equipment as well as loan programs in areas where capital costs are high but long-term cost savings from increased efficiency are achieved. The SCAQMD staff recognizes that while the private sector plays the central role in funding mechanisms to modernize facilities, supportive policy and good governance are essential for such programs to succeed. The following are initial concepts for funding and grant programs:

- Develop a stationary source grant program, similar to the Carl Moyer program for mobile sources, that would provide financial incentives through an application process to cost-effectively reduce stationary source NOx emissions with additional considerations for producing co-benefits for air toxic and GHG reductions.
- Utilize public funding or public-private partnerships to “tip the balance” towards a business case for investments when equipment upgrades do not offer sufficient returns for private investment.
- Seek additional grants and cost-sharing opportunities from various government agencies, such as the California Air Resources Board (CARB), the California Energy Commission (CEC), the National Renewable Energy Laboratory, the U.S. EPA, the U.S. Departments of Energy (DOE) and the Department of Transportation (DOT) to support technology advancement efforts as well as infrastructure needed for facility modernization. Historically, such cooperative project funding revenues have been received from CARB, CEC, DOE and DOT. In 2014, state and federal revenue totaling nearly \$20 million was awarded to the SCAQMD.¹ While most of these monies were used to fund mobile source-related projects, these funding sources will be investigated as a mechanism to incentivize the replacement of older higher emitting stationary source equipment with newer cleaner equipment, or the siting of new, cleaner facilities in the Basin.
- While the Clean Fuels Program which, under H&SC §§40448.5 and 40512 and Vehicle Code Section 9250.11, establishing mechanisms to collect revenues from mobile and stationary sources to support the program’s objectives, these authorities have not traditionally been used to significantly fund the deployment of stationary source low-emitting technologies² Thus, there may be potential

¹ SCAQMD, Technology Advancement Office Clean Fuels Program 2014 Annual Report and 2015 Plan Update, March, 2015

² Ibid

opportunities for this type of funding source to be used for "Industrial Facility Modernization." While this would be consistent with H&SC §40448.5 to the extent the funds are used to develop and implement advanced clean fuels (including electrification), this incentive approach may have other legal or legislative issues that need to be further analyzed.

- While monies collected from penalties have been historically used to help fund the District's operating costs, provide community benefits, and support health effects research, it may be possible that a portion of these funds could be specifically earmarked to assist facilities who opt to replace older higher emitting equipment with newer cleaner equipment, such as is already done for the District's Supplemental Environmental Projects (SEPs).

Permitting Incentives and Enhancements

The following identifies enhancements to the existing permitting program and permitting incentives that can be used to incentivize Industrial Facility Modernization. Enhancements to the existing permitting program are based on past efforts or recommendations from the Permit Streamlining Task Force and the 2012/2013 permit modernization effort. Incentives for reducing permitting costs can be direct such as reduced fees for use or manufacture of zero and near-zero technologies, or indirect such as streamlining the permit process, where applicable, for operators by reducing the time to prepare permits for zero and near-zero technologies.

- Expand standardized permits for specific equipment or processes. As part of the permit streamlining effort, standardized permits were developed for lithographic printing and non-halogenated soil remediation equipment and emergency generators. This incentive would seek to expand standardized permits to additional source categories.
- Expand registration and certification permit programs to near-zero technologies. Zero emission technologies are exempt from permit under Rule 219. SCAQMD staff can look at expanding the registration and certification programs for near-zero emission technologies to reduce the administrative burden of implementing these technologies.
- Expedited permit processing time and/or reduced annual renewal fees for:
 - Older, high emitting sources that are replaced with zero or near-zero technologies;
 - New zero or near-zero emission operations or manufacturing; and
 - New facilities that implement zero or near-zero emission fleets within their business.
- Develop a presumptive BACT list of pre-approved equipment or controls for specific source categories, where applicable, which could provide sources prior certainty that they could expeditiously receive a permit for most equipment types faster than the traditional review period. This list would need to be updated on a regular basis to accommodate technological advancements which become designated as BACT.
- Develop a tiered or sliding scale system of fees such that the lower emission sources could have correspondingly lower permit processing fees, on the premise that inherently cleaner sources require

less effort to issue permits. This mechanism could also be applied to sources replacing older high-polluting equipment/processes with near-zero-emitting equipment, or installing new equipment using advanced technologies at near-zero emission levels.

New Source Review Incentives and Enhancements

There are areas within NSR where enhancements or incentives can be provided to encourage new and modified sources to implement zero and near-zero emission technologies as well as encourage zero and near-zero emission credit generation projects. The following provides an initial list of incentives and possible New Source Review program enhancements to address credit generation and use for new and modified sources. This list represents initial concepts for the SCAQMD staff to further investigate.

- Promote sustainable growth in the Basin by incentivizing the introduction of new manufacturing facilities that emit within a specified annual emission range (e.g., 4 to 10 tpd), or reduce reliance on imported fuels via local renewable fuel production facilities through the use of annual discounted emission offset leasing fees. The annual discounted leasing fees scenario is an approach that would provide opportunities for facilities to lease non-tradable credit offsets on a temporary basis (e.g., for the first 5 years). If unused, credit offsets could then be returned to the SCAQMD with any applicable emission offset discounts, if needed.
- Use a similar approach for new manufacturing facilities that produce zero or near-zero emission technologies by exempting them from offsets and offset fees as long as there is a net emission benefit due to the application of such technologies.
- Evaluate additional strategies for increasing credit generation opportunities such as providing incentives to generate mobile source credits through zero and near-zero mobile source projects.
- Establish a pre-funded clean air investment fund administered by the SCAQMD or by other appropriate publicly-accountable entities where facilities would pay a benchmark fee to use the offset credits. Monies from the clean air investment fund would be used to invest in emerging zero and near-zero emission technologies.
- Initial concepts for possible enhancements to NSR regarding generation and use of ERCs under NSR that can better incentivize Industrial Facility Modernization:
 - Calculate future ERCs and convert existing ERCs to annual instead of daily credits (e.g., calculate offsets for power generation peaker plants the same as base load power plants).
 - Give facilities the opportunity to lease ERCs for short-term use.
 - Expand Rule 1304 – Exemptions for near-zero emission technologies.
 - Investigate modifications to the discounting of newly generated ERCs, to better incentivize replacing older equipment with zero- or near-zero emission technologies by possibly reducing the amount of discount.

CEQA Incentives

A potential incentive to assist businesses that will use zero or near-zero emission technologies or equipment, similar to the 2012 AQMP Control Measure INC-02 - Expedited Permitting and CEQA Preparation - Facilitating the Manufacturing of Zero and Near-Zero Technologies, is to provide assistance to facilities requiring a CEQA document where the SCAQMD is a lead agency. The SCAQMD may act as a lead agency for permit projects filed with the SCAQMD that have not previously undergone a CEQA analysis. This does not include CEQA documents for projects reviewed by the SCAQMD as a commenting or responsible agency. Such assistance could be accomplished by prioritizing SCAQMD staff involvement and oversight on a fast-track schedule; thus reducing the time for completion of the CEQA process.

Branding Incentives

The concept of a branding incentive is to recognize businesses that are going above and beyond regulatory requirements and/or are implementing/providing zero- or near-zero emission technologies. Branding incentives can be implemented in a variety of different forms and can be for an individual piece of equipment or product line, an entire business, and for new projects. The mechanism to implement this type of program can be through labeling, certification and awards that the facility can display in their lobby or their business advertising and possibly recognition on the SCAQMD's website or at the SCAQMD Clean Air Awards, to name a few.

Recordkeeping and Reporting Incentives

Some Working Group members suggested reduced recordkeeping and reporting requirements as an incentive to encourage businesses to implement the cleanest technologies. This recommendation is also consistent with one of the 2012/2013 permit modernization proposed concepts to incentivize the permitting of advanced clean equipment via reduced recordkeeping and monitoring.

Industrial Facility Modernization in the 2016 AQMP

In the 2012 AQMP, the SCAQMD staff proposed two measures that would seek to provide incentives for zero or near-zero emission technologies. The first measure, INC-01 Economic Incentive Programs to Adopt Zero and Near-Zero Technologies, sought to provide incentives for new and existing facilities to install and operate clean, more-efficient combustion equipment beyond what is currently required, with a focus on zero and near-zero emission options for boilers, water heaters, commercial space heating, and other source categories through economic incentive programs, subject to the availability of public funding. The second measure INC-02 - Expedited Permitting and CEQA Preparation - Facilitating the Manufacturing of Zero and Near-Zero Technologies, included the concept of expedited permitting processing and assisting in the development of applicable CEQA documentation if a company that manufactures zero or near-zero emission technology.

In developing the 2016 AQMP, the SCAQMD staff believes that INC-01 and INC-02 should be revisited to incorporate additional concepts to incentivize Industrial Facility Modernization. In addition, a process to begin developing these measures needs to be established where the SCAQMD staff initiates a series of task force meetings to address the various policy issues in order to move forward with additional incentives for Industrial Facility Modernization.



**SOUTH COAST
AIR QUALITY
MANAGEMENT DISTRICT**

SOUTH COAST AQMD • 21865 COPLEY DR • DIAMOND BAR, CA 91765 • (909) 396-2000 • 800-CUT-SMOG (288-7664)

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 35

REPORT: 2014 Annual Report on AB 2588 Air Toxics Hot Spots Program

SYNOPSIS: The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) requires local air pollution control districts to prepare an annual report. This annual update describes the various activities taken in 2014 to satisfy the requirements of AB 2588 and Rule 1402, such as quadrennial emissions reporting and prioritization, and the preparation and review of Health Risk Assessments and Risk Reduction Plans. This report also provides a summary of additional SCAQMD activities related to toxic air contaminants such as toxics rulemaking, toxics emissions inventory development, the MATES IV study, and permitting.

COMMITTEE: Stationary Source, October 16, 2015, Reviewed

RECOMMENDED ACTION:
Receive and file.

Barry R. Wallerstein, D.Env.
Executive Officer

PF:JW:IM:VM

Introduction

The South Coast Air Quality Management District (SCAQMD) has a comprehensive air toxics program. At the heart of this program are Rule 1401 – New Source Review of Toxic Air Contaminants to ensure toxic emissions from new and modified sources do not exceed specified thresholds and Rule 1402 – Control of Toxic Air Contaminants from Existing Sources which implements various aspects of AB 2588. The SCAQMD's air toxics program also includes a series of source-specific rules that address toxic air contaminants for specific industry or equipment categories. The 2010 Clean Communities Plan also includes measures to reduce toxic air contaminants.

Staff has prepared an annual report that summarizes the agency's air toxics program activities in 2014, including Air Toxics "Hot Spots" Information and Assessment Act (or AB 2588) activities, rule development activities, and other air toxic related

programs, such as Multiple Air Toxics Exposure Study (MATES), source testing and air monitoring efforts. This report satisfies Section 44363 of the California Health and Safety Code which requires the SCAQMD to annually prepare and publish a status and forecast report of AB 2588 activities.

Background

The AB 2588 program, combined with implementation of Rule 1402, includes requirements for toxic emissions inventories, categorizing and prioritizing facilities, and reviewing and approving detailed Air Toxic Inventory Reports (ATIRs), Health Risk Assessments (HRAs), public notifications, and Risk Reduction Plans (RRPs).

There are two broad classes of facilities within the AB 2588 program, ‘Core’ facilities, and facilities in an Industry-wide category. Industry-wide facilities are generally small businesses with relatively similar emission profiles (such as gas stations and dry cleaners using perchloroethylene). Facilities that are in an Industry-wide Source category have fewer requirements under AB 2588 than Core facilities. Core facilities must regularly report their toxic emissions, and conduct an HRA if their emissions exceed certain thresholds. If the HRA shows that risks are above thresholds set in Rule 1402, a Core facility must also conduct risk reduction activities and/or public notification. Historically, a total of 1,640 facilities have been in SCAQMD’s Core AB 2588 program, though there are only 361 currently.

SCAQMD staff reviews HRAs to ensure they follow methodologies approved by the state Office of Environmental Health Hazard Assessment (OEHHA) and the California Air Resources Board (CARB). The health risk values presented in this Annual Report were calculated using the methodologies available at the time of HRA approval, and have not been recalculated based on more recent guidance.¹ OEHHA’s most recent HRA guidance was approved in early 2015 and now takes into account more recent science that has documented greater risks when children are exposed to cancer-causing compounds, in addition to other changes. This change in methodology results in residential cancer risk estimates that are about two to six times higher compared to the previous methodology.

As of the end of 2014, staff has reviewed and approved 335 HRAs from 307 facilities. Of these facilities, 50 facilities were required to perform public notification activities and 24 facilities were required to implement risk reduction measures.

¹ The potential effect of the most recently revised HRA Guidance from OEHHA on the SCAQMD AB 2588 Program is discussed in detail in the staff report to amended Rules 212, 1401, 1401.1, and 1402 found here: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-jun1-028>.

Accomplishments

The attached report summarizes the SCAQMD staff's activities in 2014 for the AB 2588 Program, implementation of Rules 1402 and 1401, source-specific air toxic rule development efforts, development of industry-wide source category HRAs, and air monitoring and source testing projects done in conjunction with AB 2588 and Rule 1402, and upcoming activities.

AB "Core" 2588 Program

Under the AB 2588 program, facilities are required to report their toxic emissions to the SCAQMD quadrennially through the web-based Annual Emissions Reporting (AER) Program. In 2014, 69 facilities submitted quadrennial toxic emissions inventory.

In 2014, SCAQMD staff worked with 10 facilities in various stages of the AB 2588 process. Specifically, staff initiated reviews of three detailed ATIRs, nine HRAs, and two RRP. Comment letters were provided on three HRAs and one RRP. One ATIR was approved, no HRAs were approved, and one RRP was approved. A significant additional task that staff began in 2014 includes incorporating an analysis of onsite ambient air quality monitoring data into the HRAs for several different facilities. This monitoring data provides a new source of information on fugitive emissions of toxics that had previously been difficult to quantify. Table 1 lists the facilities that were addressed in 2014. The report provides information regarding each facility.

Table 1 - AB 2588 Facilities - 2014

Facility Name	ID #
All American Asphalt	132954
The Boeing Company	16660
Bowman Plating Company	18989
Carlton Forge Works	22911
Exide Technologies	124838
Hixson Metal Finishing	11818
Kaiser Aluminum	16338
Quemetco	8547
Gerdau	18931
Tesoro Refining & Marketing	800436

Industry-Wide Categories

Industry-wide category sources are facilities that share the same Standard Industrial Classification (SIC) code, for the most part are small businesses that would suffer severe economic hardships by individual compliance, and can be easily and generically characterized (such as gas stations or dry cleaners using perchloroethylene). To date, risk assessments are available for Retail Gas Stations and Perc Dry Cleaners. Detailed maps of estimated cancer risks from these facilities can be found on SCAQMD's website.² In 2014, no HRAs were developed for any additional Industry-wide categories.

Air Monitoring and Source Testing Activities to Support the AB 2588 Program

In addition to collecting and reviewing quadrennial emission inventories based on emission calculations, SCAQMD staff regularly engages in air toxics monitoring and air toxics source testing at and near many facilities. In 2014 the SCAQMD staff conducted source testing and monitoring efforts on a variety of facilities in the metal industry including Exide Technologies (ID 124838), Carlton Forge Works (ID 22911), Gerdau (ID 18931), Quemetco (ID 8547), and Hixson (ID 11818).

Rule 1401 Permitting and HRA Modeling Projects

In 2014, SCAQMD staff processed approximately 2,800 Rule 1401 applications for ~1,770 facilities. Under Rule 1401, the SCAQMD staff also conducts air dispersion modeling to confirm that new and modified permits do not exceed the health risk thresholds. In 2014, SCAQMD staff reviewed and approved 21 HRA modeling projects for permitting.

Multiple Air Toxics Exposure Study (MATES)

MATES IV³ is the fourth in a series of urban air toxics monitoring and evaluation studies conducted in the Basin and is part of the SCAQMD Board's Environmental Justice Initiative. The study is a follow-up to previous studies which took place in 1985-86, 1998-99, and 2004-06. MATES IV consists of several elements including a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize Basin risk. The study focuses on the carcinogenic risk from exposure to air toxics.

A draft MATES IV report was released on October 3, 2014 in addition to an interactive map of the Basin to identify the estimated modeled carcinogenic risk from air toxics by

² <http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=e25b31a1-f9dc-48d4-8ce2-86e13a835583>

³ The MATES studies are available here: <http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies>

geographic location which is available on the SCAQMD web site.⁴ The study shows that compared to past MATES studies of air toxics in the Basin, diesel particulate exposure was substantially reduced, but is still unacceptably high, especially near sources of toxic emissions such as the ports and transportation corridors and given the new OEHHA guidelines. The results confirm the need for a continued focus on the reduction of toxic emissions, particularly from diesel exhaust.

Pilot Study for Multi-Metals In-Stack and Ambient Continuous Monitors

SCAQMD staff initiated a pilot study for continuous in-stack monitors and continuous ambient monitors for airborne toxic metals in 2014. Contracts with Cooper Environmental Services, the only manufacturer of these types of continuous monitors, were initiated in 2014 to implement the study. The pilot study was conducted at Quemetco and Gerdau for a period of two months. SCAQMD staff continued this pilot test in 2015.

Clean Communities Plan

The centerpiece of the 2010 Clean Communities Plan is a pilot study where the SCAQMD staff works with community stakeholders to identify and develop community-specific solutions to air quality issues in two communities. These two communities are the City of San Bernardino and Boyle Heights and the surrounding areas. On June 24 and 25, 2014, SCAQMD staff held the 8th and 9th Working Group Meetings for San Bernardino and Boyle Heights CCP Pilot Study working group meeting with stakeholders, interested parties, and the public. Upon completion of the two pilot studies, the SCAQMD staff will develop guidance that other communities can use to address air quality issues specific to their community.

Rule Development

Assessment of OEHHA Revised Air Toxics Hot Spots Program Risk Assessment Guidelines (2015) and Development of Amendments to Rules 1401, 1401.1, 1402, and 212

AB 2588 requires that OEHHA develop health risk assessment guidelines for implementation of the Hot Spots Program. In 2003, OEHHA developed and approved the Health Risk Assessment Guidance.⁵ Since the adoption of the 2003 Guidelines, new scientific information has shown that early-life exposures to air toxics contribute to an increased estimated lifetime risk of developing cancer and other adverse health effects, compared to exposures that occur in adulthood. Based on this information, OEHHA developed and released a draft of its new Air Toxics Hot Spots Program Guidance Manual for Preparation of Risk Assessments (Revised OEHHA Guidelines) in October,

⁴ The MATES IV Carcinogenic Risk interactive map is available at: <http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b>.

⁵ OEHHA. 2003. The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. The document is available at http://www.oehha.org/air/hot_spots/HRAguidefinal.html.

2014. The final Revised OEHHA Guidelines document was approved by OEHHA on March 6, 2015.⁶ The Revised OEHHA Guidelines incorporate age sensitivity factors which increase cancer risk estimates to residential and sensitive receptors, based solely on the change in methodology. Under the Revised OEHHA Guidelines, even though the toxic emissions from a facility have not increased, estimated cancer risk to a residential receptor will increase due to the change in methodology. Cancer risks for off-site worker receptors are similar between the existing and revised methodology because the methodology for adulthood exposures remains relatively unchanged. In 2014, staff worked with OEHHA and CARB as this guidance was being developed to evaluate its potential impact on SCAQMD programs, and to provide feedback on the proposed methodologies.

The SCAQMD's permitting program, AB 2588 Hot Spots program, existing regulatory program, and CEQA guidelines rely on OEHHA's guidelines for assessing health risks. In 2014, AB 2588 staff started performing detailed assessment of the resource impacts and impacts on the regulated community from implementation of the Revised OEHHA guidelines. This work supported the amendments to Rules 1401, 1401.1, 1402, and 212 adopted in June, 2015.

Rule 1420.1

This rule applies to lead-acid battery recycling facilities that have processed more than 50,000 tons of lead per year in any one of the five calendar years prior to November 5, 2010, or annually thereafter. The purpose of Rule 1420.1 is to protect public health by reducing exposure and emissions of lead, arsenic, benzene, and 1,3-butadiene from large lead-acid battery recycling facilities, and to help ensure attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) for Lead. In January 2014, Rule 1420.1 was amended to establish requirements for owners or operators of large lead-acid battery recycling facilities to reduce arsenic emissions and other key toxic air contaminant emissions. Amendments included requirements for ambient air concentration limits for arsenic, as well as hourly emission limits of arsenic, benzene, and 1,3-butadiene. Other amendments also contain additional administrative, monitoring and source testing requirements for stack emissions. The SCAQMD Board deferred the multi-metals continuous emission monitoring system (CEMS) provision of Amended Rule 1420.1 to its March 7, 2014 Board meeting. Facilities provided funding and participated in a multi-metals CEMS demonstration program.

⁶ OEHHA. 2015. The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. The document is available at:
http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

Future Activities

In addition to routine AB 2588 implementation activities, staff has and will continue to:

- Implement the OEHHA Revised Air Toxics Hot Spots Program Risk Assessment Guidelines (2015).
- Investigate options regarding model-monitor reconciliation. Often, modeling analysis predicts concentrations that are substantially different than those found in the monitoring results. This difference is usually due to uncertain fugitive emissions that are not accurately captured in traditional emission inventories. SCAQMD staff intends to prepare an RFP to conduct a study to develop a standard methodology for reconciliation of modeling and monitoring data.
- Streamline the AB 2588 program through Rule 1402 amendments and revisions to program guidance documents.
- Amend or adopt other proposed toxics rules (e.g., Rules 1420, 1430.1, 1156).

The annual report will be available on the SCAQMD's website and distributed to county boards of supervisors, city councils, and local health officers.

Attachment

2014 Annual Report on AB 2588 Air Toxics "Hot Spots" Program

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT



2014 Annual Report on AB 2588 Air Toxics “Hot Spots” Program

November 2015

Deputy Executive Officer
Planning, Rule Development and Area Sources
Philip Fine, Ph.D.

Assistant Deputy Executive Officer
Planning, Rule Development and Area Sources
Jill Whynot

Manager
Planning, Rule Development and Area Sources
Ian MacMillan

Author: Victoria Moaveni, Senior Air Quality Engineer
Reviewed by: William Wong, Principal Deputy District Counsel

EXECUTIVE SUMMARY

A key statewide program that air districts implement to address health risks from existing permitted facilities, called the Air Toxics Hot Spots Information and Assessment Act (AB2588), requires the South Coast Air Quality Management District (SCAQMD) to prepare an Annual Report of activities under that program. This report fulfills that requirement and also provides a summary of staff activities in relation to other toxic air contaminant programs in calendar year 2014.

In 2014, staff reviewed a variety of work products submitted by 10 different facilities as a requirement of AB2588. In particular, staff initiated reviews of three detailed Air Toxics Inventory Reports (ATIRs), nine Health Risk Assessments (HRAs), and two Risk Reduction Plans (RRPs). Comment letters to facilities were provided on three HRAs and one RRP. One ATIR was approved, no HRAs were approved, and one RRP was approved. A significant additional task that staff began in 2014 includes incorporating an analysis of onsite ambient air quality monitoring data into the HRAs for several different facilities. This monitoring data provides a new source of information on fugitive emissions of toxics that had previously been difficult to quantify.

In addition to AB2588 activities, SCAQMD staff worked on a variety of other toxic programs in 2014. This included initiating rule development work on Rules 1401, 1401.1, and 1402, 212 in anticipation of the state Office of Environmental Health Hazard Assessment's (OEHHA's) update to its HRA guidance. This update takes into account children's greater risks from exposure to cancer causing compounds, and generally increases lifetime residential cancer risks by a factor of about three. Other rules worked on by staff include, 1420.1, and 1420.2, all addressing lead emissions, and Rule 1430.1 addressing metal emissions from forging and grinding activities. Finally, staff continued its work on the Clean Communities Plan and published a draft of the fourth version of Multiple Air Toxics Exposure Study (MATES).

1.0 INTRODUCTION

The South Coast Air Quality Management District (SCAQMD) has a comprehensive air toxics program. At the heart of this program are Rule 1401 – New Source Review of Toxic Air Contaminants to ensure toxic emissions from new and modified sources do not exceed specified thresholds and Rule 1402 – Control of Toxic Air Contaminants from Existing Sources which implements various aspects of AB 2588. The SCAQMD’s air toxic program also includes a series of source specific rules that address toxic air contaminants for specific industries or equipment categories. The 2010 Clean Communities Plan (CCP) also includes measures to reduce toxic air contaminants.

This report summarizes the SCAQMD’s air toxics program activities in 2014, including Air Toxics “Hot Spots” Information and Assessment Act (or AB 2588) activities, rule development activities, and other air toxic related programs such as implementation of the Clean Communities Plan, Multiple Air Toxics Exposure Study (MATES), and source testing and air monitoring efforts in support of AB2588. This report also satisfies Section 44363 of the California Health and Safety Code that requires the SCAQMD to annually prepare and publish a status and forecast report of AB 2588 activities.

The AB 2588 program, combined with implementation of Rule 1402, includes requirements for toxic emissions inventories, categorizing and prioritizing facilities, and reviewing and approving detailed Air Toxic Inventory Reports (ATIRs), Health Risk Assessments (HRAs), public notifications, and Risk Reduction Plans (RRPs).

1.1 Background

There are two broad classes of facilities within the AB 2588 program, ‘Core’ facilities, and facilities in an Industry-wide category. Industry-wide facilities are generally small businesses with relatively similar emission profiles (such as gas stations and dry cleaners using perchloroethylene). Facilities that are in an Industry-wide Source category have fewer requirements under AB 2588 than Core facilities and are discussed further beginning in Section 2.5 of this report. Core facilities must regularly report their toxic emissions, and conduct a HRA if their emissions exceed certain thresholds. If the HRA shows that risks are above thresholds set in Rule 1402, a Core facility must also conduct risk reduction activities and/or public notification. A summary of the requirements for a Core facility are illustrated in Figure 1. Historically, a total of 1,640 facilities have been in SCAQMD’s Core AB2588 program, though there are only 361 currently.

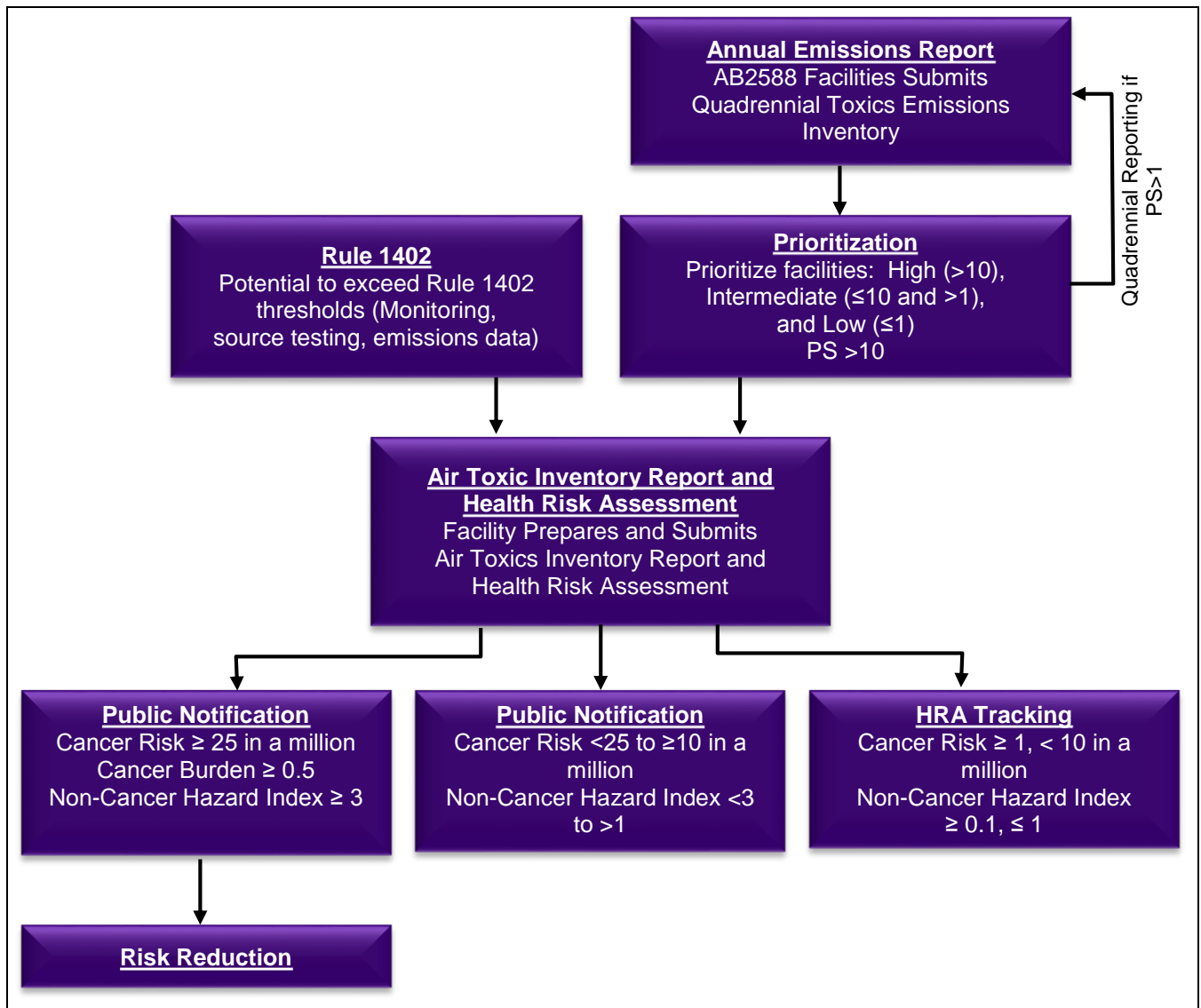


Figure 1. Overview of the AB 2588 Hot Spots Program

SCAQMD staff reviews HRAs to ensure they follow methodologies approved by the state Office of Environmental Health Hazard Assessment (OEHHA) and the state Air Resources Board (ARB). The health risk values presented in this Annual Report were calculated using the methodologies available at the time of HRA approval, and have not been recalculated based on more recent guidance.¹ OEHHA’s most recent HRA guidance was approved in early 2015 and now takes into account more recent science that has documented greater risk estimates when children are exposed to cancer causing compounds in addition to other changes. This change in methodology results in residential cancer risks

¹ The potential effect of the most recently revised HRA Guidance from OEHHA on the District AB 2588 Program is discussed in detail in the staff report to amended Rules 212, 1401, 1401.1, and 1402 found here: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-jun1-028>.

that are about two to six times higher compared to the previous methodology. For a discussion of OEHHA’s most recent update to its HRA guidance, see section 2.10.1.

As of the end of 2014, staff has reviewed and approved 335 Health Risk Assessments (HRAs) from 307 facilities. Of these facilities, 50 facilities were required to perform public notification activities and 24 facilities were required to implement risk reduction measures. As a result of the AB 2588 Program, about 95% of 1,640 Core facilities now have HRAs demonstrating that cancer risks are below ten in a million and acute and chronic non-cancer hazard indices are less than 1, or their emissions have been low enough to not require an HRA. The results from the 335 approved HRAs are illustrated in Figures 2, 3, and 4. Appendix A lists the Core facilities and the risks from their approved HRAs. Table A-1 lists the facilities in order of their cancer risks and Table A-2 is ordered by facility ID. Table A-3 lists facilities which have prepared risk reduction plans for the AB 2588 program and their corresponding risks [Section 44363(a) (2) and (3)]. Appendix B shows trends in ambient air toxics in the South Coast Air Basin and vicinity.

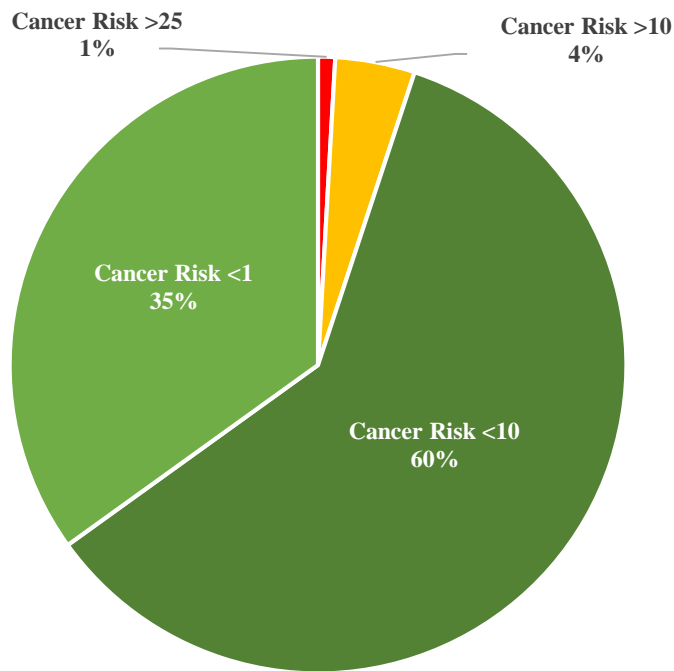


Figure 2. Distribution of Cancer Risks for AB 2588 Facilities that have an Approved HRA

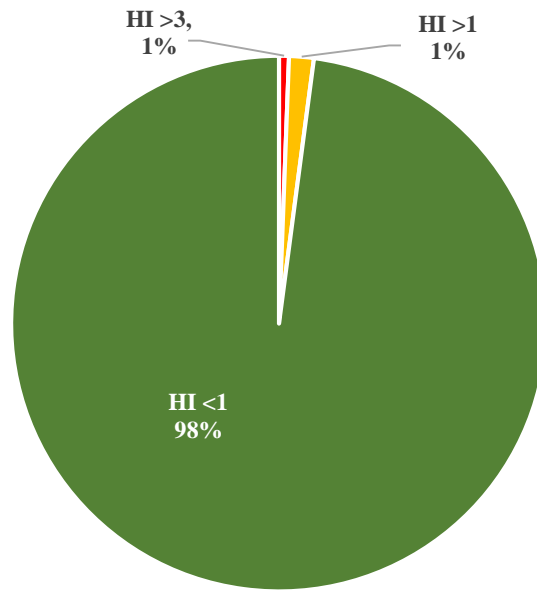


Figure 3. Distribution of Acute Hazard Indices for AB 2588 Facilities that have an Approved HRA

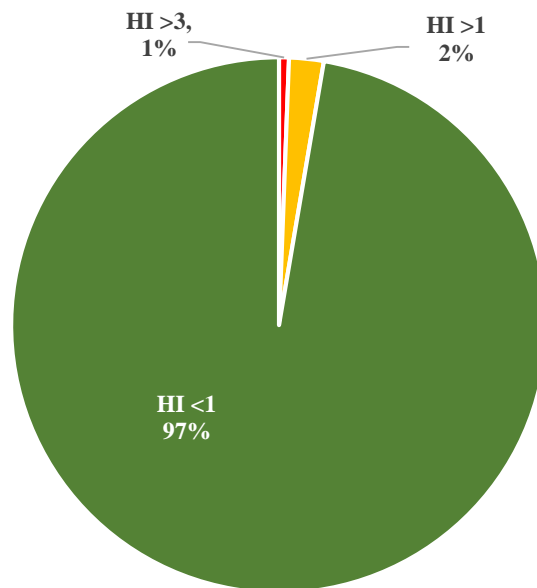


Figure 4. Distribution of Chronic Hazard Indices for AB 2588 Facilities that have an Approved HRA

2.0 2014 TOXICS ACTIVITIES

This section highlights SCAQMD staff's activities in 2014 for the AB 2588 Program, implementation of Rules 1402 and 1401, source-specific air toxic rule development efforts, development of industry-wide source category HRAs, and air monitoring and source testing projects done in conjunction with AB 2588 and Rule 1402.

2.1 Air Toxic Inventory Reports (ATIR) and Health Risk Assessments (HRAs)

Under the AB 2588 program, facilities are required to report their toxic emissions to the SCAQMD quadrennially (i.e., once every four years) through the web-based Annual Emissions Reporting (AER) Program in a streamlined reporting process to obtain a preliminary toxic inventory. Under this process, facilities report emissions of 177 toxic compounds along with the distance to the nearest residential and worker receptor to calculate priority scores for each facility. Every year, criteria and toxic emissions data for the previous calendar year is posted to the SCAQMD FIND website.ⁱⁱ In 2014, 69 facilities submitted quadrennial toxic emissions inventory updates. Based on emissions inventory submittals, the SCAQMD staff calculates priority scores for each facility which takes into account potency, toxicity, and the amount of toxics released into the air, as well as the distance to workers, residents and sensitive receptors (such as hospitals, schools, and day care centers).

Upon initial prioritization of facilities, the SCAQMD staff conducts a more detailed evaluation and audit of those facilities with a priority score greater than 10 to confirm use of the correct emission factors, control efficiencies, source test methods, and relative proportions of toxic compounds. In addition, staff conducts further analyses to confirm the distance to the sensitive receptors and workers, and reviews emissions trends and facility changes such as new or modified permitted equipment or pollution controls. In the cases where the facility has a prior HRA, staff compares the priority score results with the last HRA submittal or Risk Reduction Plan, if applicable. This additional information obtained through priority score auditing will often negate the need to require a HRA. If, however, the prioritization score remains high, the facility is asked to prepare an ATIR and HRA.

There are two general paths in which a facility will be required to prepare an ATIR and HRA: 1) Audited quadrennial toxic inventory reporting shows that the facility has a priority score greater than 10 as explained above; and 2) The Executive Officer, based upon investigation, determines that emission levels from the facility could potentially cause

ⁱⁱ <http://www.aqmd.gov/home/tools/public/find>

exceedance of the action risk thresholds of Rule 1402 (e.g., monitoring or source testing shows elevated levels of toxic air contaminants).

Facilities that prepare an ATIR and HRA must submit a detailed inventory of approximately 450 toxic compounds as well as provide stack parameters and locations using the latest CARB Hotspots Analysis and Reporting Program (HARP 2)^{III}. HARP 2 replaces the prior version and incorporates the methodologies from the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual. HARP 2 also incorporates U.S. EPA's air quality dispersion model called AERMOD^{IV} to estimate the concentration of pollutants in place of the previously used ISCST3 model. ISCST3 dispersion modeling is no longer allowed for determining TAC concentrations under Rule 1402. Meteorological data^V for use in HARP 2 and AERMOD can be downloaded from the SCAQMD website.

2.2 Air Monitoring and Source Testing Activities to Support the AB 2588 Program

In addition to collecting and reviewing quadrennial emission inventories based on emission calculations, SCAQMD staff regularly engages in air toxics monitoring and air toxics source testing at and near many facilities. SCAQMD source testing engineers are responsible for reviewing and approving source test protocols and reports submitted by facilities to determine air toxic emissions for the AB 2588 program, along with occasionally conducting or observing source tests. For example, in 2014, the SCAQMD staff conducted source testing and monitoring efforts on a variety of metal industries.

2.3 Summary of SCAQMD Staff Activities on Specific AB 2588 Facilities in 2014

In 2014, District staff worked with 10 facilities in various stages of the AB 2588 process. Specifically, staff initiated reviews of three detailed Air Toxics Inventory Reports (ATIRs), nine Health Risk Assessments (HRAs), and two Risk Reduction Plans (RRPs). Comment letters were provided to facilities on three HRAs and one RRP. One ATIR was approved, no HRAs were approved, and one RRP was approved. Table 1 presents a summary of key activities associated with each facility in 2014. A description of these key activities for each facility follows Table 1.

^{III} CARB 2015. Hotspots Analysis and Reporting Program (HARP 2) can be found at: <http://www.arb.ca.gov/toxics/harp/harp.htm>.

^{IV} http://www.epa.gov/ttn/scram/dispersion_prefrec.htm#aermod

^V <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/data-for-aermod>

Table 1 - Disposition of AB 2588 Facilities

Facility Name	ID #	ATIR			HRA			RRP			Public Notice	Source Testing	Air Monitoring
		R	C	A	R	C	A	R	C	A			
All American Asphalt	132954			x	x								
The Boeing Company	16660				xx								
Bowman Plating Company	18989				x								
Carlton Forge Works	22911	x			xx							x	x
Exide Technologies	124838							xx	x	x		x	x
Hixson Metal Finishing	11818	x			x							x	x
Kaiser Aluminum	16338	x											
Quemetco	8547				x	x						x	x
Gerdau	18931				x	xx							x
Tesoro Refining & Marketing	800436										x		

For ATIRs, HRAs, and RRP: R=Report Received, and staff review initiated; C=Comment letter on report sent to facility; A=Report Approved. Multiple 'x' marks indicate that multiple reports were received or comments were sent.

2.4.1 All American Asphalt (ID 132954) – San Fernando

All American Asphalt located in San Fernando is a material production and construction company which provides grading, paving, concrete and grinding services to their customers. They also produce rubberized asphalt concrete. The facility was required to prepare and submit an ATIR and HRA. The facility’s ATIR was approved in 2014 and they subsequently submitted their HRA which is under review. The SCAQMD staff conducted a site visit during 2014 as part of its HRA review and is updating the HRA to incorporate the new OEHHA guidance.

2.4.2 The Boeing Company (ID 16660) – Huntington Beach

The Boeing Company located in Huntington Beach is an aerospace research and development facility which manufactures metal parts either by processing them in chromic acid anodizing tanks and/or coating in spray booths or from composite materials. The facility was required to prepare an updated HRA to demonstrate compliance with Rule 1469.1 (d)(3)(C) based on a revised facility emission inventory that differed from the inventory used from a previously approved HRA (2006). The Boeing Company submitted the HRA in 2014 and the HRA is being updated to incorporate the new OEHHA guidance.

2.4.3 Bowman Plating Company, Inc. (ID 18989) – Unincorporated LA County

Bowman Plating Company located near Compton, provides metal finishing and non-destructive testing, and processes all materials including aluminum, titanium, composite, steel, and stainless steel for aerospace and related industries. The facility's most recent approved HRA from 2007 showed a maximum cancer risk of 14.2 in a million, mainly due to hexavalent chromium (Cr+6) emissions from paint spraying operation. The SCAQMD staff compared the facility's 2010 quadrennial inventory update priority score risk drivers with the 2007 approved HRA which resulted in similar risk numbers. However, the AERs submitted by the facility for calendar years 2011 through 2013 showed increased usage of Cr+6 containing spray paints and lower control efficiencies, and consequently, the 2007 HRA (using 2006 emissions inventory year) is no longer representative of the facility's current health risks. As a result, SCAQMD required Bowman Plating Company to submit an updated HRA using the 2013 emission inventory. The HRA was submitted in late 2014 and is being updated to incorporate the new OEHHA guidance.

2.4.4 Carlton Forge Works (ID 22911) - Paramount^{VI}

Carlton Forge Works (CFW) manufactures forged high-temperature alloy rings for aerospace, gas turbine, and other industries, using principal alloy metals such as nickel, titanium, aluminum, cobalt, zirconium, niobium, and iron, as well as other high temperature metals with special properties. The facility is located in a mixed residential/industrial area of Paramount, CA.

Complaints of burning metallic odors reported by local community members led SCAQMD to supplement ongoing complaint investigations, inspections and surveillance activities with preliminary air sampling in February, April and May of 2013 to investigate potential health impacts from exposure to gaseous and particulate pollutants emitted by CFW operations. Because the major activities at CFW are forging, abrasive blasting, coating, and grinding, particular attention was given to the monitoring of the metallic components of particle emissions to better characterize the emissions and determine ambient levels of potential exposure off-site and in the community.

A series of source tests was conducted in the summer of 2013 to better assess the locations and levels of emissions. Starting in August 2013, based on the preliminary air and soil sampling results, SCAQMD began ambient field measurements for the monitoring of the metallic components of particle emissions at two nearby sites downwind. Nickel and Cr+6 were identified as the two primary pollutants of initial concern. One of the monitoring sites was relocated to a location slightly farther away in November 2013 to collect gradient

^{VI} A web page with additional details regarding CFW can be found on SCAQMD's web page here: <http://www.aqmd.gov/home/library/public-information/2014-news-archives/carlton-forge-works-information>

information. Reductions in ambient levels have been observed since sampling began due to improvements at the facility.

Based on elevated levels of metals found in nearby monitors and preliminary risk estimates using CFW's February 4, 2014 draft Air Toxics Inventory Report, on March 21, 2014, CFW was asked to prepare an ATIR, and HRA and begin work on a RRP pursuant to SCAQMD Rule 1402. In August 2014, CFW provided a revised ATIR and a draft HRA. Subsequently, on October 28, 2014 CFW provided a revised HRA that corrected an error in the dispersion modeling of the August 2014 HRA. Both draft HRAs demonstrated that a RRP was not required because all risks were below SCAQMD Rule 1402 thresholds. SCAQMD staff is continuing to review the draft HRA and ATIR in conjunction with the nearby monitoring to ensure that the HRA appropriately analyzes all emissions from CFW. In addition, the HRA is being updated to incorporate the updated OEHHA guidance.

In addition, in 2014 the SCAQMD staff initiated rule development to address potential toxic emissions from forging and grinding operations. More information regarding toxic rule development activities in 2014 are discussed in the section titled, "Rule Making".

2.4.5 Exide Technologies (ID 124838) – Vernon^{VII}

Exide Technologies is a secondary lead smelting facility which recovers lead from recycled automotive batteries, and had been in operation since 1922. The facility has permanently ceased operation and is in the process of closure. Equipment used in the battery recycling process included machines to break batteries apart and separate different materials, furnaces and kettles to melt metals, and miscellaneous equipment including storage tanks, conveying equipment, and engines. Assuming that emissions from 2010-2012 persisted for a worker's entire career, the facility posed a cancer risk of up to 156 in a million, primarily from arsenic. SCAQMD source testing staff has reviewed numerous source testing protocols and reports related to the facility's HRA and subsequent efforts to reduce emissions. Staff conducted several series of source tests at the facility, and observed other tests conducted by the facility and third party contractors. Further, air monitoring for lead which began in 2007 was expanded in 2013 to include analysis for arsenic.

Based on the results of the approved HRA, the facility was subject to the risk reduction requirements of Rule 1402. Exide submitted a RRP on August 28, 2013 that was subsequently rejected by staff. Exide submitted a revised RRP on January 17, 2014 which was approved on March 19, 2014. Furthermore, pursuant to SCAQMD Rule 1402 (p)(1), Exide is required to provide annual public notice in addition to annual progress reports

^{VII} A web page with additional details regarding Exide can be found on SCAQMD's web page here: <http://www.aqmd.gov/home/regulations/compliance/exide-updates>

until the Rule 1402 Action Risk Levels are met. In 2015, Exide notified SCAQMD that it was shutting down its facility and would initiate a closure and cleanup process.

2.4.6 Hixson Metal Finishing (ID 11818) - Newport Beach^{VIII}

Hixson Metal Finishing located in Newport Beach is a metal finishing facility that conducts anodizing, testing, plating, coating, and painting operations on various parts for use in the aerospace and defense industries. Some of the potential onsite sources of emissions include the chrome anodizing line, nickel and cadmium plating, curing and drying ovens, paint spray booths, abrasive blasting equipment, waste water treatment system and miscellaneous natural gas combustion sources. The major source of concern with Hixson's operation is fugitive dust containing hexavalent chromium (Cr+6). Cr+6 monitoring showed higher than average levels of Cr+6 in the area around Hixson's facility. SCAQMD staff conducted investigations into the specific source and cause, including materials analysis on site and several shorter term intensive monitoring campaigns with higher frequency and collection of more numerous air samples. Results of short-term intensive monitoring on site in late 2013-early 2014 confirmed Hixson as the source of Cr+6. The SCAQMD staff performed emission source tests and installed five (5) additional ambient monitoring stations inside the Hixson facility to better identify the sources of Cr+6 emissions within Hixson. As a result, in April 2014 SCAQMD staff required Hixson to prepare and submit an AB 2588 HRA and RRP, in conjunction with a stipulated order of Abatement approved by the SCAQMD Hearing Board that limited Hixson's activities. Hixson submitted their HRA to SCAQMD in November 2014 and the first draft of their RRP in February 2015.

2.4.7 Kaiser Aluminum Fabricated Products, LLC (ID 16338) – Los Angeles

Kaiser Aluminum Fabricated Products located in Los Angeles, develops fabricated aluminum products for major suppliers and manufacturers in the aerospace, general automotive, engineering and custom industrial markets. They also manufacture aluminum extrusions, cast logs, billets, and semi-fabricated products. The facility was required to prepare and submit an ATIR based on the facility's quadrennial emissions inventory which resulted in a facility priority score greater than 10. SCAQMD staff conducted a site visit in October 2014 to verify the sources of emissions identified in the ATIR and is continuing to review the facility's emissions profile.

2.4.8 Quemetco (ID 8547) – City of Industry

Quemetco operates a battery recycling and lead recovery facility. At this facility, used batteries are received, fragmented and the lead-containing materials are recovered and

^{VIII} A web page with additional details regarding Exide can be found on SCAQMD's web page here: <http://www.aqmd.gov/home/regulations/compliance/toxic-hot-spots-ab-2588/hixson-metal-finishing>

purified. The primary pollutants of concern for this facility are arsenic, lead, and 1,3-butadiene.

Multiple AB2588 HRAs have been approved for Quemetco in the past, most recently in 2010. In October and November 2013, the SCAQMD staff conducted source tests at Quemetco. The results of the 2013 source tests showed elevated arsenic, benzene, and 1,3-butadiene emissions compared to previous 2009, 2010, and 2012 source tests. As a result, in 2013, SCAQMD staff requested that Quemetco prepare and submit a HRA pursuant to Rule 1402. In 2014, SCAQMD staff conducted additional testing for Rule 1420.1 compliance in response to a Quemetco permit application to increase their feed rate. The 2014 tests showed elevated levels of benzene. SCAQMD staff has commented on and asked for multiple revisions of the draft HRA. SCAQMD staff is continuing to review the draft HRA in conjunction with the nearby monitoring to ensure that the HRA appropriately analyzes all emissions from Quemetco. In addition, the HRA is being updated to incorporate the updated OEHHA guidance.

2.4.9 R J Noble (ID 19167) – Orange

R.J. Noble Company located in Orange produces, manufactures, and recycles asphalt, asphalt rubber, RAP, rock, sand, and concrete products. They also produce products including: Aggregate Base, Recrush Base, Sand Products, Gravel Products, Recycled Asphalt (RAP), and more. Based on the facility's 2013 quadrennial air toxic emissions report, District staff calculated a priority score greater than 10 and as a result, the facility was required to prepare and submit an ATIR. The submitted ATIR is currently under review by District staff.

2.4.10 Gerdau (ID 18931) - Rancho Cucamonga

Gerdau North America acquired the TAMCO Rancho Cucamonga steel mini mill in October, 2010. The company produces steel reinforcing bars that are commonly used in construction. The ferrous steel scrap is recycled and delivered to the Mill by trucks and rail, and then melted in an Electric Arc Furnace (EAF) to produce steel billets. The billets are reheated in a reheat furnace to form concrete reinforcing bar (rebar). The primary pollutants of concern for this facility are Cr+6, nickel, manganese, mercury, and arsenic.

SCAQMD staff conducted inspections of the facility and conducted source tests of the bag house exhaust. SCAQMD ambient monitoring for lead and select particulate metals (Mn, Ni, and Cr+6) began at and around the facility in 2012 at two locations and continued through 2014. In April 2013, Gerdau was required to prepare and submit a HRA and SCAQMD staff has asked for revisions prior to approval. An amended HRA was submitted by Gerdau on April 2014. On November 20, 2014, SCAQMD staff asked Gerdau to revise its HRA again to evaluate the facility's impact relative to the lead National Ambient Air Quality Standard, among other changes. This revised HRA was submitted in early 2015. In 2014, staff conducted a site visit and implemented a one-month demonstration program at Gerdau using a multi-metals ambient air monitor to measure ambient air concentrations of lead, arsenic and other metals on a continuous near-real time basis.

2.4.11 Tesoro Refining and Marketing (ID 800436) - Wilmington

Tesoro Refining and Marketing Company operates a refinery in the city of Wilmington that extends over 300 acres. The facility processes various crude stocks into a variety of petroleum-based products and by-products including gasoline, jet fuel, and diesel. The facility's approved HRA showed a maximum cancer risk of 10.8 in a million mainly from diesel particulate matter (DPM), 1,3-butadiene, benzene, hexavalent chromium, and arsenic emissions from refining processes. Based on the results of the approved HRA, the facility was subject to the public notification requirements of AB 2588, and a public notification meeting was held on February 4, 2014. Due to special circumstances regarding the nature and location of the impacted community, a second public notification meeting was held on February 27, 2014 to accommodate the individuals not able to attend the first meeting.

2.5 Industry-Wide Category Sources

Industry-wide category sources are facilities that share the same Standard Industrial Classification (SIC) code, for the most part are small businesses that would suffer severe economic hardships by individual compliance, and can be easily and generically characterized. To date, the SCAQMD has identified seven Industry-wide categories:

- Retail Gasoline Dispensing,
- Perchloroethylene Dry Cleaning,
- Auto Body Shops,
- Fiberglass Molding,
- Printing,
- Metal Plating, and
- Wood Stripping / Refinishing.

The advantage to an Industry-wide category is that compliance may be handled collectively. Health and Safety Code Section 44323 states that a district may prepare an industry-wide emission inventory and health risk assessment for the IWS facilities. The California Air Pollution Control Officers Association's (CAPCOA) Toxics Committee has been tasked with developing statewide emission inventory and risk assessment guidelines for several of these Industry-wide categories. The guidelines provide a cost-effective and uniform method for calculating facility emissions and estimating toxic risks for these facilities under the SCAQMD's jurisdiction.

Eventually industry-wide risk assessments will be prepared for all the categories listed above. To date, risk assessments are available for Retail Gas Stations and Perc Dry Cleaners. Detailed maps of estimated cancer risks from these facilities can be found on

SCAQMD's website.^{IX} In 2014, no HRAs were developed for any additional Industry-wide categories.

2.6 Pilot Study for Multi-Metals In-Stack and Ambient Continuous Monitors

SCAQMD staff initiated a pilot study for continuous in-stack monitors and continuous ambient monitors for multi-metals in 2014. Contracts with Cooper Environmental Services, the only manufacturer of these types of continuous monitors, were initiated in 2014 to implement the study. The pilot study was conducted at Quemetco and Gerdau for a period of two months. SCAQMD staff continued this pilot test in 2015.

2.7 Rule 1401 Permitting and HRA Modeling Projects

Under Rule 1401, any new, relocated, and modified permit units which emit toxic air contaminants as specified in the rule are subject to specific allowable limits for maximum individual cancer risk (MICR), cancer burden, and non-cancer acute and chronic hazard index (HI). In 2014, SCAQMD staff processed approximately 2,800 Rule 1401 applications for ~1,770 facilities. Under Rule 1401, the SCAQMD staff also conducts air dispersion modeling to confirm that new and modified permits do not exceed the health risk thresholds. In 2014, SCAQMD staff reviewed and approved 21 HRA modeling projects for permitting.

2.8 Multiple Air Toxics Exposure Study (MATES)

MATES IV^X is the fourth in a series of urban air toxics monitoring and evaluation studies conducted in the Basin and is part of the SCAQMD Governing Board Environmental Justice Initiative. The study is a follow up to previous studies which took place in 1985-86, 1998-99, and 2004-06. MATES IV consists of several elements including a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize Basin risk. The study focuses on the carcinogenic risk from exposure to air toxics. The measurement of ultrafine particle concentrations is a new focus for MATES IV. In addition, shorter-term measurements were conducted at various locations, such as airports, freeways, rail yards, and busy intersections near warehouse operations to assess exposures to ultrafine particles and black carbon. Sampling began in June 2012 and concluded June 2013, providing a full year of ambient data.

^{IX} <http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=e25b31a1-f9dc-48d4-8ce2-86e13a835583>

^X The MATES studies are available here: <http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies>

A draft MATES IV report was released on October 3, 2014 in addition to an interactive map of the Basin to identify the estimated modeled carcinogenic risk from air toxics by geographic location which is available on the SCAQMD web site.^{XI}

The study shows that compared to past MATES studies of air toxics in the Basin, diesel particulate exposure was substantially reduced, but is still unacceptably high, especially near sources of toxic emissions such as the ports and transportation corridors and given the new OEHHA guidelines. The results confirm the need for a continued focus on the reduction of toxic emissions, particularly from diesel exhaust.

2.9 National-Scale Air Toxics Assessment (NATA) Support

Every three years, beginning in 1996, the U.S. EPA prepares a National-Scale Air Toxics Assessment (NATA).^{XII} NATA is analogous to the modeling component of SCAQMD's Multiple Air Toxic Exposure Study (MATES). Whereas MATES looks at population risks in the four county jurisdiction of the SCAQMD, all 50 states are addressed in NATA. The purpose of NATA is to: (1) identify and prioritize the toxic air contaminants of greatest concern, (2) determine the risk contribution from each of the major source categories (i.e., on-road, off-road, point, and area), and (3) provide a screening tool for local areas (i.e., census tracts) with elevated risks to be further investigated. In 2014, AB 2588 staff analyzed and reviewed approximately 40 high risk facilities listed in the final version of the 2011 NATA for the accuracy of their data.

2.10 Rule Development

2.10.1 Assessment of OEHHA Revised Air Toxics Hot Spots Program Risk Assessment Guidelines (2015) and Development of Amendments to Rules 1401, 1401.1, 1402, and 212

AB 2588 requires that OEHHA develop health risk assessment guidelines for implementation of the Hot Spots Program. In 2003, OEHHA developed and approved the Health Risk Assessment Guidance.^{XIII} Since the adoption of the 2003 Guidelines, new scientific information has shown that early-life exposures to air toxics contribute to an increased estimated lifetime risk of developing cancer and other adverse health effects, compared to exposures that occur in adulthood. Based on this information, OEHHA developed and released a draft of its new Air Toxics Hot Spots Program Guidance Manual for Preparation of Risk Assessments (Revised OEHHA Guidelines) in October, 2014. The

^{XI} The MATES IV Carcinogenic Risk interactive map is available at: <http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b>.

^{XII} The U.S. EPA's web portal to NATA is at: <http://www.epa.gov/ttn/atw/natamain/>.

^{XIII} OEHHA. 2003. The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. The document is available at http://www.oehha.org/air/hot_spots/HRAguidefinal.html.

final Revised OEHHA Guidelines document was approved by OEHHA on March 6, 2015.^{XIV} The Revised OEHHA Guidelines incorporate age sensitivity factors which will increase cancer risk estimates to residential and sensitive receptors, based on the change in methodology. Under the Revised OEHHA Guidelines, even though the toxic emissions from a facility have not increased, estimated cancer risk to a residential receptor will increase due to the change in methodology. Cancer risks for off-site worker receptors are similar between the existing and revised methodology because the methodology for adulthood exposures remains relatively unchanged. In 2014, staff worked with OEHHA and CARB as this guidance was being developed to evaluate its potential impact on SCAQMD programs, and to provide feedback on the proposed methodologies.

The SCAQMD's permitting program, AB 2588 Hot Spots program, existing regulatory program, and CEQA guidelines rely on OEHHA's guidelines for assessing health risks. As such, implementing the Revised Guidelines will have a variety of implications for SCAQMD's air toxics program. In 2014, AB 2588 staff started performing detailed assessment of the resource impacts and impacts on the regulated community from implementation of the Revised OEHHA guidelines. This work supported the amendments to Rules 1401, 1401.1, 1402, and 212 adopted in June, 2015.

2.10.2 Amended Rule 1420.1 – Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-acid Battery Recycling Facilities (January 10, 2014 and March 7, 2014)

This rule applies to lead-acid battery recycling facilities that have processed more than 50,000 tons of lead per year in any one of the five calendar years prior to November 5, 2010, or annually thereafter. The purpose of Rule 1420.1 is to protect public health by reducing exposure and emissions of lead, arsenic, benzene, and 1,3-butadiene from large lead-acid battery recycling facilities, and to help ensure attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) for Lead. In January 2014, Rule 1420.1 was amended to establish requirements for owners or operators of large lead-acid battery recycling facilities to reduce arsenic emissions and other key toxic air contaminant emissions. Amendments included requirements for ambient air concentration limits for arsenic, as well as hourly emission limits of arsenic, benzene, and 1,3-butadiene. Other amendments also contain additional administrative, monitoring and source testing requirements for stack emissions. The SCAQMD Board deferred the multi-metals continuous emission monitoring system (CEMS) provision of Amended Rule 1420.1 to its March 7, 2014 Board meeting. Facilities provided funding and participated in a multi-metals CEMS demonstration program.

^{XIV} OEHHA. 2015. The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. The document is available at: http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

2.11 Clean Communities Plan

The centerpiece of the 2010 Clean Communities Plan is a pilot study where the SCAQMD staff works with community stakeholders to identify and develop community-specific solutions to air quality issues in two communities. These two communities are the City of San Bernardino and Boyle Heights and the surrounding areas. On June 24 and 25, 2014, SCAQMD staff held the 8th and 9th Working Group Meetings for San Bernardino and Boyle Heights CCP Pilot Study working group meeting with stakeholders, interested parties, and the public. Upon completion of the two pilot studies, the SCAQMD staff will develop guidance that other communities can use to address air quality issues specific to their community.

3.0 FUTURE ACTIVITIES

3.1 AB 2588 Activities

In 2015, staff will prioritize about 85 facilities and notify those with high priority scores to prepare detailed Air Toxics Inventory Reports (ATIRs) and HRAs. About 10 facility HRAs and 10 detailed ATIRs will be reviewed. Public notification will also occur for multiple facilities including Hixson Metal Finishing (ID 11818), Gerdau (ID 18931), and potentially others.

3.2 Model-Monitor Reconciliation

In response to several recent situations regarding the ambient measurement of fugitive emissions, and the historical difficulties in quantifying those emissions, SCAQMD staff will continue to investigate options regarding model-monitor reconciliation. Often, modeling analysis predicts concentrations that are substantially different than those found in the monitoring results. This difference is usually due to fugitive emissions that are not accurately quantified in traditional emission inventories. SCAQMD staff intends to prepare an RFP to conduct a study to develop a standard methodology for reconciliation of modeling and monitoring data.

3.3 Implementation of OEHHA Revised Air Toxics Hot Spots Program Risk Assessment Guidelines (2015)

The SCAQMD's air toxics program relies on OEHHA's health risk assessment guidelines in all aspects of its toxics regulatory program. At the Special Governing Board Meeting on May 16, 2014, staff presented Potential Impacts of the New OEHHA Risk Guidelines on SCAQMD Programs. To begin implementing the Revised OEHHA Guidelines, amendments to key rules, Rule 1401 – New Source Review of Toxic Air Contaminants, Rule 212 – Standards for Approving Permits and Issuing Public Notice, and Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, was recommended. SCAQMD Staff presented a generalized work plan and schedule for implementation of the Revised OEHHA Guidelines at the March 2015 Governing Board Meeting.

Significant AB 2588 resources have been dedicated in 2015 to the implementation of the Revised OEHHA guidelines in all aspects of SCAQMD toxics programs including outreach, rule development, guideline revisions, and training.

3.4 Rulemaking

Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities requires cement manufacturing facilities to comply with specific requirements applicable to various operations, as well as materials handling and transport at the facilities. The proposed amended rule will ensure hexavalent chromium (Cr+6) emissions from cement manufacturing operations and the property after facility closure are minimized, while streamlining Cr+6 monitoring requirements.

Rule 1402 - Control of Toxic Air Contaminants from Existing Sources applies to any facility subject to the AB 2588 Hot Spots Act and to any facility for which the impact of total facility emissions exceeds any significant or action risk level. Staff is working with stakeholders to incentivize early risk reductions beyond those required under Rule 1402, to assess current public notification procedures, and to explore alternatives for such facilities willing to do early risk reduction. Additionally, proposed amendments to the rule will address procedural changes and clarifications.

Rule 1420 – Emissions Standard for Lead applies to all non-vehicular sources of lead emissions and contains requirements for emission levels, controls, housekeeping, and monitoring. On October 15, 2008, U.S.EPA lowered the lead National Ambient Air Quality Standard (NAAQS) from 1.5 to 0.15 ug/m³. Proposed amendments will reassess the current requirements and realign them to ensure compliance with the revised lead standard. Proposed amendments to the rule may also include general housekeeping provisions and enclosure requirements to control fugitive lead emissions.

Rule 1430.1 – Control of Toxic Air Contaminants from Metal Forging and Grinding is a new rule which will establish requirements to control toxic air contaminants from metal forging and grinding operations. SCAQMD staff has identified 21 facilities in the South Coast Air Basin that conduct metal forging and grinding operations. SCAQMD staff is currently investigating regulatory requirements that would ensure affected facilities employ the best means available to minimize toxic air contaminants not adequately addressed by existing regulations. Rule requirements currently under consideration by SCAQMD staff range from housekeeping provisions to source specific limitations such as grinding enclosures, curtains, ventilation requirements and air pollution control equipment. The SCAQMD staff will continue to review and analyze all emission reduction strategies available for this source category.

Appendix A

Health Risk from Facilities with an Approved Health Risk Assessment (HRA)

The tables in Appendix A lists the facilities and the current risks as reviewed and approved by staff. Risks presented in this table were calculated based on guidance that was available from the state Office of Environmental Health Hazard Assessment (OEHHA) at the time of HRA approval. For example, the risks presented in this appendix do not include the recent updated health risk calculation methodologies (OEHHA, 2015) that place greater emphasis on children’s heightened cancer risk in comparison to adults.

Table A-1 lists the facilities in order of their cancer risks and Table A-2 is ordered by facility ID. In most instances, the listed risks are from an approved HRA. However, in some instances, the risks are from after the implementation of a risk reduction plan. Table A-3 lists the status of the facility’s risk reduction plan and is presented by Facility ID. Attention should also be given to the other footnotes in the table denoting facilities with updated HRAs pending approval and facilities with risk including emergency DICEs. It also provides current status of each facility as follows:

- A – Active
- I – Inactive
- OB – Out of business (with the year in which the facility went out of business)

“Inactive” and “out of business” facilities have been retained for historical purposes since staff occasionally receives public inquiries regarding “inactive” or “out of business” facilities. Staff realizes that facilities that have gone through change of ownership could have different name and facility ID numbers. The following risk levels are identified in SCAQMD Rule 1402 – Control of Toxic Air Contaminants from Existing Sources:

- **Action Risk Levels:** Cancer risk ≥ 25 in a million; Acute HI ≥ 3.0 ; Chronic HI ≥ 3.0 , Cancer Burden ≥ 0.5
- **Public Notification Levels:** Cancer risk ≥ 10 in a million; Acute HI > 1.0 ; Chronic HI > 1.0
- **Exemption Levels:** Cancer risk < 1 in a million; Acute HI < 0.1 ; Chronic HI < 0.1

APPENDIX A-1
Health Risks from Facilities with an Approved HRA
(listed in descending order by cancer risk)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
11818	A	HIXSON METAL FINISHING	NEWPORT BEACH	1502.0	1.09	0.2	0.1	2015
124838	OB	EXIDE TECHNOLOGIES	LOS ANGELES	156.0	10.00	3.8	63.0	2013
18931	A	GERDAU	RANCHO CUCAMONGA	52.7	3.08	3.0	3.2	2015
171107	A	PHILLIPS 66 CO/LA REFINERY WILMINGTON PL	WILMINGTON	23.2	0.29	0.1	0.7	2013
122822	I	CONSOLIDATED FILM INDUSTRIES	HOLLYWOOD	21.0	ND	0.1	0.4	2000
176967	A	GAS RECOVERY SYSTEMS, INC	IRVINE	20.1	0.18	0.6	0.3	2009
14495	A	VISTA METALS CORP	FONTANA	19.8	0.06	0.0	0.3	2008
165192	A	TRIUMPH AEROSTRUCTURES, LLC (b)	HAWTHORNE	19.7	ND	0.6	0.2	1999
11142	OB	KEYSOR-CENTURY CORP	SAUGUS	17.0	ND	0.5	0.1	2000
18989	A	BOWMAN PLATING CO INC	COMPTON	14.2	0.002	0.0	0.0	2007
35302	A	OWENS CORNING (c)	COMPTON	14.0	0.02	0.1	0.1	2000
41229	A	LUBECO INC	LONG BEACH	14.0	ND	0.0	0.1	2002
48323	A	SIGMA PLATING CO INC	LA PUENTE	13.8	ND	0.0	0.7	2001
23907	A	JOHNS MANVILLE CORP	CORONA	13.0	ND	0.4	2.7	1999
18648	OB	CROWN CITY PLATING CO.	EL MONTE	12.0	ND	0.4	0.1	2000
29110	A	ORANGE, COUNTY OF - SANITATION DISTRICT (d)	HUNTINGTON BEACH	10.7	ND	1.8	0.5	2007
800436	A	TESORO REFINING AND MARKETING CO	WILMINGTON	10.7	0.37	0.3	0.4	2013
155828	A	GARRETT AVIATION SVCS. LLC DBA STANDARD	LOS ANGELES	<10	0.001	0.2	0.3	2002
106797	OB	SAINT-GOBAIN CONTAINERS LLC	LOS ANGELES	9.9	ND	0.0	0.1	2000
101380	OB	GENERAL DYNAMICS OTS (DOWNEY) INC	DOWNEY	9.8	ND	0.0	0.1	2000
148925	A	CHERRY AEROSPACE LLC	SANTA ANA	9.7	ND	0.1	0.2	1999
800373	I	CENCO REFINING COMPANY	SANTA FE SPRINGS	9.7	ND	0.3	0.1	2000
800183	A	PARAMOUNT PETR CORP (EIS USE)	PARAMOUNT	9.6	ND	0.0	0.0	2002
800318	A	GRISWOLD INDUSTRIES	COSTA MESA	9.5	0.01	0.1	0.0	2001
15504	A	SCHLOSSER FORGE CO	RANCHO CUCAMONGA	9.5	ND	1.6	1.1	2002
800149	A	US BORAX INC	WILMINGTON	9.5	ND	0.0	0.0	2000
10510	A	GREGG INDUSTRIES INC	EL MONTE	9.4	ND	0.6	0.6	2008
62897	OB	NORTHROP GRUMMAN CORP, MASD	PICO RIVERA	9.4	ND	1.0	0.5	2000
42922	OB	CMC PRINTED BAG INC	WHITTIER	9.0	ND	0.0	0.0	1995
174710	A	TESORO LOGISTICS OP LLC, VINVALE MARKETI	SOUTH GATE	9.0	ND	0.0	0.0	1994
169990	A	SPS TECHNOLOGIES, LLC	GARDENA	8.9	ND	0.1	0.1	1999
800184	A	GOLDEN WEST REF CO	SANTA FE SPRINGS	8.8	ND	0.2	0.1	1997
1744	A	KIRK HILL RUBBER CO	BREA	8.7	0.001	0.2	0.1	2007
175124	A	AEROJET ROCKETDYNE OF DE, INC.	CANOGA PARK	8.7	ND	0.0	0.0	1995
44454	A	STRUCTURAL COMPOSITES IND	POMONA	8.6	0.001	0.0	0.2	2002

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
107168	I	ADVANCED SPA DESIGNS	LA HABRA	8.6	ND	0.0	0.0	1995
2680	A	LA CO., SANITATION DISTRICT	WHITTIER	8.6	ND	0.0	0.0	1999
15736	A	HENRY CO	HUNTINGTON PARK	8.5	ND	0.0	0.0	2000
800057	A	KINDER MORGAN LIQUIDS TERMINALS, LLC	CARSON	8.5	ND	0.0	0.1	1999
800079	A	PETRO DIAMOND TERMINAL CO	LONG BEACH	8.3	ND	0.0	0.2	1998
125281	OB	MODERN PLATING, ALCO CAD-NICKEL PLATING	LOS ANGELES	8.2	ND	0.1	0.0	1995
21615	OB	PERKINELMER OPTOELECTRONICS SC, INC	AZUSA	8.1	ND	0.2	0.1	1998
110924	A	WESTWAY TERMINAL COMPANY	SAN PEDRO	8.0	ND	0.3	0.5	1997
3609	I	ALS PLATING CO INC	LOS ANGELES	7.8	ND	0.3	0.2	1999
37603	A	SGL TECHNIC INC, POLYCARBON DIVISION	VALENCIA	7.8	ND	0.0	0.4	1998
800182	A	RIVERSIDE CEMENT CO (c)	RIVERSIDE	7.8	0.11	0.1	0.1	2001
13920	A	ST. JOSEPH HOSPITAL	ORANGE	7.7	0.004	0.8	0.3	2008
800089	A	EXXONMOBIL OIL CORPORATION	TORRANCE	7.7	0.15	0.2	0.5	2013
18294	A	NORTHROP GRUMMAN CORP, AIRCRAFT DIV	EL SEGUNDO	7.6	ND	0.1	0.1	1999
113170	A	SANTA MONICA - UCLA MEDICAL CENTER (b)	SANTA MONICA	7.6	0.14	0.2	0.0	1997
800214	A	LA CITY, SANITATION BUREAU (c)	PLAYA DEL REY	7.6	ND	0.1	0.0	1999
20197	A	LAC/USC MEDICAL CENTER	LOS ANGELES	7.5	ND	0.7	0.4	2007
800032	A	CHEVRON U.S.A. INC (EIS USE)	MONTEBELLO	7.5	0.14	0.0	0.2	1999
800150	A	US GOVT, AF DEPT, MARCH AFB (NSR USE)	RIVERSIDE	7.4	0.02	0.3	0.0	2008
108701	A	SAINT-GOBAIN CONTAINERS LLC	EL MONTE	7.3	ND	0.1	0.1	2000
117560	A	EQUILON ENTER, LLC-SHELL OIL PROD. US	WILMINGTON	7.3	ND	0.0	0.1	1998
174655	A	TESORO REFINING & MARKETING CO, LLC	CARSON	7.3	ND	0.3	0.1	2000
800026	A	ULTRAMAR INC (NSR USE ONLY)	WILMINGTON	7.2	0.18	0.7	0.2	2012
800113	A	ROHR, INC	RIVERSIDE	7.2	0.01	0.9	0.0	2007
800236	A	LA CO. SANITATION DIST	CARSON	7.2	ND	0.2	0.1	2007
49387	A	UNIV CAL, RIVERSIDE	RIVERSIDE	7.1	ND	0.0	0.0	1999
27343	OB	CON AGRA INC, GILROY FOODS DBA	SANTA ANA	7.1	ND	0.2	0.1	1995
57094	A	GS ROOFING PRODUCTS CO, INC/CERTAINTED (c)	WILMINGTON	7.0	ND	0.0	0.0	2000
140499	A	AMERESCO HUNTINGTON BEACH, L.L.C.	HUNTINGTON BEACH	7.0	ND	0.0	0.0	1995
800209	A	BKK CORPORATION, LANDFILL DIVISION GNRL	WEST COVINA	6.9	ND	0.0	0.1	2000
800372	A	EQUILON ENTER. LLC, SHELL OIL PROD. US	CARSON	6.9	ND	0.4	0.1	2001
20280	A	METAL SURFACES INC	BELL GARDENS	6.8	0.00	0.9	0.3	2011
5723	A	DUCOMMUN AEROSTRUCTURES INC	ORANGE	6.7	ND	0.0	0.1	1999
173913	A	TRIUMPH PROCESSING, EMBEE DIV, INC.	SANTA ANA	6.6	ND	0.2	0.6	2000
17301	A	ORANGE, COUNTY OF - SANITATION DISTRICT	FOUNTAIN VALLEY	6.6	0.001	0.4	0.3	2007
118998	OB	CYTEC FIBERITE INC	CULVER CITY	6.6	ND	0.0	0.2	1997

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
171109	A	PHILLIPS 66 COMPANY/LOS ANGELES REFINERY	CARSON	6.6	0.11	0.0	0.3	2011
6643	A	TECHNICOLOR INC	NORTH HOLLYWOOD	6.5	ND	0.0	0.1	2007
34764	A	CADDOCK ELECTRONICS INC	RIVERSIDE	6.50		0.03	0.11	
168088	A	PCCR USA	LYNWOOD	6.5	ND	0.1	1.6	1995
11726	A	GE ENGINE SERVICES	ONTARIO	6.5	ND	0.1	0.6	1999
2852	A	THE WALT DISNEY COMPANY	BURBANK	6.4	0.03	0.0	0.0	1997
800066	A	HITCO CARBON COMPOSITES INC	GARDENA	6.4	ND	0.3	0.0	1995
4477	A	SO CAL EDISON CO	AVALON	6.3	0.02	0.0	0.0	2012
1226	A	HYATT DIE CAST & ENGINEERING CORP	CYPRESS	6.2	ND	0.0	0.1	1996
800067	A	BOEING SATELLITE SYSTEMS INC	EL SEGUNDO	6.2	ND	0.0	0.1	2000
146570	A	ROHM AND HAAS CHEMICALS LLC	LA MIRADA	6.2	ND	0.5	0.8	1999
45262	A	LA CO, SANITATION DISTRICT UNIT NO.02	GLENDALE	6.2	ND	0.0	0.1	1998
140961	A	GKN AEROSPACE TRANSPARENCY SYS INC	GARDEN GROVE	6.0	ND	0.0	0.5	1996
800022	A	CALNEV PIPE LINE CO (NSR USE)	BLOOMINGTON	5.9	ND	0.0	0.1	1999
800047	I	FLETCHER OIL & REF CO	CARSON	5.9	ND	0.0	0.0	1998
800198	A	ULTRAMAR INC (NSR USE ONLY)	WILMINGTON	5.9	ND	0.0	0.1	1999
800279	A	SFPP, L.P.	ORANGE	5.9	ND	0.0	0.2	1999
8578	OB	ASSOCIATED CONCRETE PROD. INC	SANTA ANA	5.8	ND	0.1	0.6	1999
136148	A	E/M COATING SERVICES	NORTH HOLLYWOOD	5.8	ND	0.3	0.6	1998
65382	A	SFPP, L.P.	BLOOMINGTON	5.8	ND	0.0	0.0	1996
164864	A	ARROWHEAD BRASS & PLUMBING	LOS ANGELES	5.7	ND	0.3	0.0	1995
800288	A	UNIV CAL IRVINE (NSR USE ONLY)	IRVINE	5.6	ND	0.0	0.1	1996
22410	A	PALACE PLATING	LOS ANGELES	5.6	ND	0.7	0.4	2004
38971	A	RICOH ELECTRONICS INC	IRVINE	5.6	ND	0.0	0.4	1995
14146	A	MAC GREGOR YACHT CORP	COSTA MESA	5.5	ND	0.0	0.1	1998
43201	A	SNOW SUMMIT INC	BIG BEAR LAKE	5.5	ND	0.2	0.0	2007
54424	A	L & L CUSTOM SHUTTERS	PLACENTIA	5.5	ND	0.2	0.2	2001
800409	A	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	REDONDO BEACH	5.5	ND	0.5	0.2	1998
800196	A	AMERICAN AIRLINES INC (EIS USE)	LOS ANGELES	5.4	ND	0.9	0.1	2002
800171	A	EXXONMOBIL OIL CORPORATION	VERNON	5.3	ND	0.1	0.0	1997
134018	A	INDUSTRIAL CONTAINER SERVICES-CA LLC	MONTEBELLO	5.2	ND	0.6	0.2	2000
109198	A	TORCH OPERATING COMPANY	BREA	5.0	ND	0.0	0.0	2001
103888	A	SARGENT FLETCHER INC	EL MONTE	4.9	ND	0.2	0.0	1999
800037	A	DEMENNO/KERDOON	COMPTON	4.9	0.01	0.0	0.0	2009
11192	A	HI-SHEAR CORPORATION	TORRANCE	4.8	ND	0.0	0.0	2008
800038	A	THE BOEING COMPANY - C17 PROGRAM	LONG BEACH	4.8	ND	0.2	0.1	1999

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
800264	A	EDGINGTON OIL COMPANY	LONG BEACH	4.8	0.001	0.0	0.0	2002
101977	A	SIGNAL HILL PETROLEUM INC	LONG BEACH	4.7	ND	0.6	1.0	1998
3950	A	CROWN CORK & SEAL CO INC	LA MIRADA	4.6	ND	0.0	0.1	1997
83102	A	LIGHT METALS INC	INDUSTRY	4.5	0.01	0.0	2.7	2002
8547	A	QUEMETCO INC (c)	INDUSTRY	4.4	0.02	0.1	0.7	2010
157451	A	VERNON MACHINE CORP, BENDER US DBA	VERNON	4.4	0.001	1.0	0.0	2002
800041	A	DOW CHEM U.S.A. (NSR USE)	TORRANCE	4.4	ND	0.1	0.0	2000
93346	A	WAYMIRE DRUM CO,INC.S EL MONTE FACILITY	SOUTH EL MONTE	4.3	ND	0.1	0.2	1997
174591	A	TESORO REFINING & MARKETING CO LLC, CAL (c)	WILMINGTON	4.3	ND	0.1	0.2	1995
177042	A	SOLVAY USA, INC	LONG BEACH	4.3	ND	0.3	0.0	2001
124506	A	BOEING ELECTRON DYNAMIC DEVICES INC	TORRANCE	4.2	ND	0.5	0.1	1995
6459	OB	HONEYWELL INTERNATIONAL INC	VERNON	4.1	ND	0.0	0.0	1999
7533	A	HUGO NEU-PROLER CO	TERMINAL ISLAND	4.10		1.28	0.14	
18439	OB	ACE PLATING CO INC	LOS ANGELES	4.1	ND	0.6	0.2	1998
16660	A	THE BOEING COMPANY	HUNTINGTON BEACH	3.8	0.01	0.2	0.0	1999
45489	A	ABBOTT CARDIOVASCULAR SYSTEMS, INC.	TEMECULA	3.8	0.01	1.3	0.0	2002
126060	A	STERIGENICS US, LLC	ONTARIO	3.8	0.00	0.0	0.0	2007
8820	A	REULAND ELECTRIC CO, H.BRITTON LEES	INDUSTRY	3.7	ND	0.0	0.0	1996
9114	I	SOMITEX PRINTS OF CAL INC	INDUSTRY	3.7	ND	0.1	0.0	1996
17325	A	ACE CLEARWATER ENTER.	PARAMOUNT	3.7	ND	0.0	0.0	2002
106838	A	VALLEY-TODECO, INC	SYLMAR	3.7	ND	0.2	0.2	2000
105598	A	SENIOR FLEXONICS INC/STAINLESS STEEL DVN	BURBANK	3.6	ND	1.0	0.5	2001
7427	A	OWENS-BROCKWAY GLASS CONTAINER INC	VERNON	3.6	0.02	0.0	0.1	1999
800007	OB	ALLIED SIGNAL INC (NSR USE ONLY)	EL SEGUNDO	3.6	ND	0.0	0.5	2000
126197	A	STERIGENICS US, INC.	LOS ANGELES	3.6	ND	0.0	0.0	1996
127568	A	ENGINEERED POLYMER SOLUTION, VALSPAR	MONTEBELLO	3.5	ND	0.1	0.5	2000
151899	A	VINTAGE PRODUCTION CALIFORNIA LLC	NEWHALL	3.5	ND	0.0	0.2	2000
140811	A	DUCOMMUN AEROSTRUCTURES INC	MONROVIA	3.5	0.01	0.0	0.0	2002
8015	A	ANADITE INC	SOUTH GATE	3.5	ND	0.6	0.8	1998
9163	A	INLAND EMPIRE UTL AGEN, A MUN WATER DIS	ONTARIO	3.4	ND	0.3	0.0	2007
57329	OB	KWIKSET CORP	ANAHEIM	3.4	ND	0.0	0.1	2000
151415	A	LINN WESTERN OPERATING, INC	BREA	3.4	ND	0.0	0.0	1999
800204	OB	SIMPSON PAPER CO	POMONA	3.4	ND	0.0	0.0	1996
153546	A	HUCK INTL INC. DBA ALCOA FASTENING SYS.	CARSON	3.3	ND	0.0	0.0	1999
126191	A	STERIGENICS US, INC.	LOS ANGELES	3.3	ND	0.0	0.0	1996
800063	A	GROVER PROD. CO (EIS USE)	LOS ANGELES	3.3	ND	0.9	0.1	2001

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
800189	A	DISNEYLAND RESORT	ANAHEIM	3.3	0.03	0.1	0.1	2009
18396	A	SPRAYLAT CORP	LOS ANGELES	3.2	0.00	0.7	0.0	2012
6384	A	LA CO., RANCHO LOS AMIGOS MEDICAL CENTER	DOWNEY	3.1	ND	0.0	0.1	1999
113676	A	VICKERS	LOS ANGELES	3.0	ND	0.0	0.0	1995
11435	A	THE PQ CORP	SOUTH GATE	3.0	ND	0.0	0.0	1998
174703	A	TESORO REFINING & MARKETING CO LLC CARSO	CARSON	3.0	ND	0.0	0.0	1994
10005	A	ELECTRONIC CHROME GRINDING CO INC	SANTA FE SPRINGS	3.0	0.01	0.2	0.1	2001
52517	A	REXAM PLC, REXAM BEVERAGE CAN COMPANY	CHATSWORTH	2.9	0.01	0.7	0.1	2009
18452	A	UCLA (REGENTS OF UC) (c)	LOS ANGELES	2.9	ND	0.0	0.1	1999
2613	A	US GOVT, NAVY DEPT,NAVAL WEAPONS STN	SEAL BEACH	2.9	ND	0.1	0.0	2002
116868	A	EQUILON ENT LLC/RIALTO TERMINAL	BLOOMINGTON	2.9	ND	0.0	0.0	1999
800035	A	CONTINENTAL AIRLINES INC (NSR USE ONLY)	LOS ANGELES	2.8	ND	0.0	0.1	1995
48274	A	FENDER MUSICAL INST	CORONA	2.8	ND	0.0	0.4	1997
151798	A	TESORO REFINING AND MARKETING CO	CARSON	2.8	ND	0.1	0.0	1999
167981	A	TESORO LOGISTICS OPERATIONS LLC	WILMINGTON	2.8	ND	0.0	0.0	2000
800030	A	CHEVRON PRODUCTS CO.	EL SEGUNDO	2.7	0.28	0.3	0.1	2001
5887	A	NEXGEN PHARMA INC	IRVINE	2.7	ND	0.0	0.0	1997
16642	A	ANHEUSER-BUSCH INC., (LA BREWERY)	VAN NUYS	2.7	ND	0.0	0.1	1999
25440	A	ROBERTSHAW CONTROLS CO, GRAYSON CONTROLS	LONG BEACH	2.7	ND	0.0	1.0	1998
27701	A	CADDOCK ELECTRONIC	RIVERSIDE	2.7	ND	0.0	0.1	2002
46268	A	CALIFORNIA STEEL INDUSTRIES INC	FONTANA	2.7	0.02	0.2	0.0	1995
137517	A	PACIFIC TERMINALS LLC	ETIWANDA	2.7	ND	0.0	0.2	2000
175191	A	FREEPORT-MCMORAN OIL & GAS	LOS ANGELES	2.7	ND	0.0	0.1	1997
35483	A	WARNER BROTHERS STUDIO FACILITIES	BURBANK	2.6	ND	0.1	0.3	1997
134943	A	ALCOA GLOBAL FASTENERS, INC. SOUTH BAY	TORRANCE	2.6	ND	0.6	0.0	2008
37507	A	TROJAN BATTERY COMPANY	SANTA FE SPRINGS	2.6	0.001	1.1	1.3	2012
7949	A	CUSTOM FIBERGLASS MFG CO/CUSTOM HARDTOP	LONG BEACH	2.5	ND	0.0	0.0	1995
65381	A	SFPP, L.P. (NSR USE)	CARSON	2.4	ND	0.0	0.1	1999
79682	A	RAMCAR BATTERIES INC	COMMERCE	2.4	1.00	0.0	0.2	1998
18508	A	AIR PROD & CHEM INC	LOS ANGELES	2.4	ND	0.1	0.8	1999
800202	A	UNIVERSAL STUDIOS INC (EIS USE)	UNIVERSAL CITY	2.4	ND	0.0	0.0	1996
800387	A	CAL INST OF TECH	PASADENA	2.4	ND	0.1	0.0	2007
172878	A	TESORO LOGISTICS OPERATIONS LLC LONG BEA	LONG BEACH	2.4	ND	0.0	0.0	1999
133405	A	BODYCOTE INC/BODYCOTE THERMAL PROCESSING	LOS ANGELES	2.4	ND	0.0	0.2	1999
800039	I	DOUGLAS PRODUCTS DIVISION	TORRANCE	2.4	ND	0.0	0.0	1996
1208	A-OB	MICROSEMICORP	SANTA ANA	2.3	ND	0.0	0.0	2001

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
90546	OB	SORIN BIOMEDICAL INC	IRVINE	2.3	ND	0.0	0.0	1996
160437	A	SOUTHERN CALIFORNIA EDISON	SAN BERNARDINO	2.3	<0.01	<0.01	<0.01	2013
800056	A	KINDER MORGAN LIQUIDS TERMINALS, LLC	WILMINGTON	2.3	0.01	0.0	0.0	1997
800111	OB	THE BOEING COMPANY	DOWNEY	2.3	ND	0.0	0.1	1996
103659	OB	4MC-BURBANK, INC.	BURBANK	2.2	ND	0.6	0.0	2004
99773	A	CYTEC FIBERITE INC	ANAHEIM	2.2	0.0004	0.0	0.2	2000
9668	A	DELUXE LABORATORIES INC,DELUXE LABORATOR	HOLLYWOOD	2.1	ND	0.0	0.0	2000
40829	A	HAWKER PACIFIC INC	SUN VALLEY	2.1	0.0003	0.0	0.1	2009
142267	A	FS PRECISION TECH LLC	RANCHO DOMINGUEZ	2.0	ND	0.1	0.2	2001
800181	A	CALIFORNIA PORTLAND CEMENT CO (c)	COLTON	2.0	ND	0.0	0.4	1996
2605	A	3M PHARMACEUTICALS	NORTHRIDGE	2.0	ND	0.4	0.4	1996
14502	A	VERNON CITY, LIGHT & POWER DEPT	VERNON	2.0	0.0004	0.0	0.0	2007
54627	A	HICKORY SPRINGS OF CAL INC	COMMERCE	2.0	ND	0.0	0.5	1998
800325	A	TIDELANDS OIL PRODUCTION CO	LONG BEACH	1.9	ND	0.1	0.6	1999
10245	A	LA CITY,SANITATION BUREAU,TERMINAL ISLAN	SAN PEDRO	1.8	ND	0.0	0.0	2000
23559	OB	JOHNSON CONTROLS BATTERY GROUP INC	FULLERTON	1.8	ND	0.0	0.1	2001
800003	A	HONEYWELL INTERNATIONAL INC	TORRANCE	1.8	ND	0.0	0.0	1999
8309	A	CAMBRO MANUFACTURING CO	HUNTINGTON BEACH	1.7	ND	0.0	0.1	2000
22467	A	LEFIELL MFG CO	SANTA FE SPRINGS	1.7	ND	0.7	0.2	2000
82512	A	BREA CANON OIL CO	WILMINGTON	1.7	ND	0.0	0.0	1996
119907	A	BERRY PETROLEUM COMPANY	SANTA CLARITA	1.6	ND	0.2	0.7	1999
119920	A	PECHINEY CAST PLATE INC	VERNON	1.6	ND	0.3	0.3	1996
133660	A	HAYDEN INDUSTRIAL PRODUCTS	CORONA	1.6	ND	0.8	0.4	1998
107350	A	NATIONAL O-RINGS	DOWNEY	1.5	ND	0.0	0.0	2001
2638	A	OCCIDENTAL COLLEGE	LOS ANGELES	1.5	ND	0.1	0.0	2007
126536	A	CONSOLIDATED FOUNDRIES - POMONA	POMONA	1.5	ND	0.0	0.0	1999
25070	A	LA CO., SANITATION DISTRICT (c)	WHITTIER	1.5	0.003	0.3	0.1	2009
82513	A	BREA CANON OIL COMPANY INC	HARBOR CITY	1.4	ND	0.0	0.0	1996
800408	A	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	MANHATTAN BEACH	1.4	ND	0.9	0.1	1998
3968	A	TABC, INC	LONG BEACH	1.4	ND	0.1	0.2	1999
62679	A	KOP-COAT INC	VERNON	1.3	ND	0.0	0.5	1997
126544	A	PAC FOUNDRIES-INDUSTRY	INDUSTRY	1.3	ND	0.6	0.1	1996
161300	A	SAPA EXTRUDER, INC	INDUSTRY	1.3	ND	0.0	0.0	1999
2526	A	CHEVRON PRODUCTS CO	VAN NUYS	1.3	ND	0.0	0.0	1996
22551	A	THUMS LONG BEACH CO	SAN PEDRO	1.2	ND	0.0	0.0	2000
42633	A	LA CO., SANITATION DIST	POMONA	1.2	ND	0.0	0.0	1996

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
106009	A	VENOCO INC.	BEVERLY HILLS	1.2	ND	0.0	0.0	2005
152054	A	LINN WESTERN OPERATING INC	BREA	1.1	ND	0.0	0.1	1996
42514	A	LA CO.,SANITATION DIST,CALABASAS LNDFFILL	AGOURA	1.1	0.00	0.1	0.0	2010
124806	OB	EXIDE TECHNOLOGIES	INDUSTRY	1.0	ND	0.0	0.0	1999
6670	A	TRU CUT INC	LOS ANGELES	<1	ND	0.0	0.0	2002
800127	A	SO CAL GAS CO (EIS USE)	MONTEBELLO	1.0	0.00	0.0	0.0	2009
7730	A	CARPENTER CO	RIVERSIDE	1.0	ND	0.0	1.3	2003
20375	A	PRUDENTIAL OVERALL SUPPLY	RIVERSIDE	1.0	ND	0.0	0.1	1997
22808	I	PRICE PFISTER INC	PACOIMA	0.9	ND	0.2	0.1	1996
47056	OB	MYERS CONTAINER CORP, IMACC CORP DIV	HUNTINGTON PARK	0.9	ND	0.2	2.0	2002
5177	A	ITT GILFILLAN UNIT NO.02	VAN NUYS	0.9	ND	0.1	0.2	1998
3134	A	THUMS LONG BEACH CO, UNIT NO.05	SAN PEDRO	0.8	ND	0.0	0.0	1996
18378	A	GRUBER SYS INC	VALENCIA	0.8	ND	0.1	0.1	2004
22556	A	THUMS LONG BEACH CO, UNIT NO.02	SAN PEDRO	0.8	ND	0.0	0.0	1996
111415	A	VAN CAN COMPANY	FONTANA	0.8	ND	0.0	0.1	1996
14544	OB	SANTA FE ENAMELING & METAL FINISHING CO	SANTA FE SPRINGS	0.8	ND	0.0	0.4	1999
120088	A	BREITBURN ENERGY COMPANY, LLC	SANTA FE SPRINGS	0.8	ND	0.0	0.0	1998
118406	A	CARSON COGENERATION COMPANY	CARSON	0.8	ND	0.2	0.0	2007
126964	A	EDWARDS LIFESCIENCES LLC	IRVINE	0.8	ND	0.0	0.0	1995
22373	A	JEFFERSON SMURFIT CORPORATION (U.S.)	LOS ANGELES	0.7	ND	0.0	0.0	1996
24060	A	TOMKINS INDUSTRIES INC-LASCO PRODS GROUP	ANAHEIM	0.7	ND	0.0	0.0	1996
800091	A	MOBIL OIL CORP (NSR USE ONLY)	ANAHEIM	0.7	ND	0.0	0.0	1999
772	A	DEFT INC	IRVINE	0.7	ND	0.0	0.0	1995
24756	A	CRANE CO, HYDRO-AIRE DIV	BURBANK	0.6	ND	0.0	0.1	1997
115394	A	AES ALAMITOS, LLC	LONG BEACH	0.6	ND	0.0	0.0	1999
134931	A	ALCOA GLOBAL FASTENERS, INC.	FULLERTON	0.6	ND	1.9	0.0	1997
800327	A	GLENDALE CITY, GLENDALE WATER & POWER	GLENDALE	0.6	ND	0.0	0.0	1999
15647	A	CUSTOM ENAMELERS INC	FOUNTAIN VALLEY	0.6	ND	0.1	0.0	2000
3093	A	LA CO., OLIVE VIEW/UCLA MEDICAL CENTER	SYLMAR	0.5	ND	0.0	0.0	1999
21895	A	AC PRODUCTS INC	PLACENTIA	0.5	ND	0.0	0.0	2003
6281	A	US GOVT,MARINE CORPS AIR STATION,EL TORO	SANTA ANA	0.5	ND	0.0	0.0	1996
1634	OB	STEELCASE INC, WESTERN DIV	TUSTIN	0.5	ND	0.0	0.0	1995
39388	A	THUMS LONG BEACH CO, UNIT NO.03	SAN PEDRO	0.5	ND	0.0	0.0	1996
61160	A	GE ENGINE SERVICES	ONTARIO	0.5	ND	0.7	0.0	2003
800267	A	TRIUMPH PROCESSING, INC.	LYNWOOD	0.5	0.00	0.1	0.4	2012
152501	A	PRECISION SPECIALTY METALS INC	LOS ANGELES	0.5	ND	0.4	0.2	2001

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
43436	A	TST, INC.	FONTANA	0.4	0.11	0.0	0.4	1997
18990	A	LIFE PAINT CO	SANTA FE SPRINGS	0.4	ND	0.0	0.0	2001
12660	I	GOLDSHIELD FIBERGLASS, INC, PLANT #58	FONTANA	0.4	ND	0.0	0.0	1994
44577	A	LONG BEACH CITY, SERRF PROJECT	LONG BEACH	0.4	0.00	0.0	0.1	2011
115536	A	AES REDONDO BEACH, LLC	REDONDO BEACH	0.4	ND	0.0	0.0	1998
122295	A	FALCON FOAM, A DIV OF ATLAS ROOFING CORP	LOS ANGELES	0.4	ND	0.0	0.0	1999
115663	A	EL SEGUNDO POWER, LLC	EL SEGUNDO	0.3	ND	0.0	0.0	2000
25638	A	BURBANK CITY, PUB SERV DEPT	BURBANK	0.3	ND	0.3	0.0	1996
124805	A	EXIDE TECHNOLOGIES	COMMERCE	0.3	ND	0.0	0.0	2000
112192	OB	CONSOLIDATED DRUM RECONDITIONING CO INC	SOUTH GATE	0.3	ND	0.0	0.0	1997
550	A	LA CO., INTERNAL SERVICE DEPT	LOS ANGELES	0.3	ND	0.0	0.0	2008
800343	A	BOEING SATELLITE SYSTEMS, INC	EL SEGUNDO	0.3	ND	0.0	0.2	1996
24520	A	LA CO, SANITATION DISTRICTS	ROLLING HILLS ESTATE	0.3	ND	0.0	0.0	1998
99119	A	INTERPLASTIC CORP	HAWTHORNE	0.3	ND	0.1	0.3	1999
122300	A	BASFCORPORATION	COLTON	0.3	ND	0.6	0.0	2002
19989	OB	PARKER HANNIFIN AEROSPACE CORP	IRVINE	0.3	ND	0.0	0.0	1999
107149	A	MARKLAND MANUFACTURING INC	SANATA ANA	0.3	ND	0.1	0.1	2007
161142	A	FOAMEX INNOVATIONS, INC.	COMPTON	0.3	0.00	0.0	0.0	2010
16264	A	INTL COATINGS CO INC	CERRITOS	0.2	ND	0.0	0.0	1999
800074	A	LA CITY, DWP HAYNES GENERATING STATION	LONG BEACH	0.2	ND	0.0	0.0	2000
48300	A	PRECISION TUBE BENDING	SANTA FE SPRINGS	0.2	ND	0.0	0.0	2002
800168	A	PASADENA CITY, DWP (EIS USE)	PASADENA	0.2	ND	0.7	0.0	1996
800193	A	LA CITY, DWP VALLEY GENERATING STATION	SUN VALLEY	0.2	ND	0.3	0.0	1999
37336	A	COMMERCE REFUSE TO ENERGY FACILITY	COMMERCE	0.1	0.00	0.0	0.0	2010
42676	A	AES PLACERITA INC	NEWHALL	0.1	ND	0.1	0.0	2003
114801	A	RHODIA INC.	LONG BEACH	0.1	ND	0.0	0.1	2006
115389	A	AES HUNTINGTON BEACH, LLC	HUNTINGTON BEACH	0.1	ND	0.0	0.0	1999
7416	A	PRAXAIR INC	WILMINGTON	0.1	ND	0.0	0.0	2001
1992	A	PRUDENTIAL OVERALL SUPPLY	VAN NUYS	0.1	ND	0.0	0.0	1997
16044	I	SPECIALTY ORGANICS, INC.	IRWINDALE	0.1	ND	0.0	0.2	1997
24812	A	FARMER BROS CO	TORRANCE	0.1	ND	0.0	0.0	1999
25012	A	AMADA MFG AMERICA, INC	LA MIRADA	0.1	ND	0.0	0.0	2002
94872	A	METAL CONTAINER CORP	MIRA LOMA	0.1	ND	0.4	0.4	2002
111110	A	BRISTOL FIBERLITE INDUSTRIES, INC	SANTA ANA	0.1	ND	0.0	0.0	1995
24118	A	DEVOE COATINGS CO	RIVERSIDE	0.1	ND	0.3	0.1	1999
156741	A	HARBOR COGENERATION CO	WILMINGTON	0.1	ND	0.0	0.0	2002

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
20144	OB	CANON BUSINESS MACHINES INC	COSTA MESA	0.0	ND	0.0	0.1	1999
800320	A	AMVAC CHEMICAL CORP	LOS ANGELES	0.0	ND	0.1	0.3	2004
14217	OB	MODERN FAUCET MFG COMPANY	LOS ANGELES	0.0	ND	0.0	0.5	1996
45938	A	E.M.E. INC/ELECTRO MACHINE & ENGINEERING	COMPTON	0.0	ND	0.0	0.0	1999
117785	A	BALL METAL BEVERAGE CONTAINER CORP.	TORRANCE	0.0	ND	0.2	0.9	2001
22229	A	PROCESSES BY MARTIN INC	LYNWOOD	0.0	ND	0.0	0.0	2002
800075	A	LA CITY, DWP SCATTERGOOD GENERATING STA	PLAYA DEL REY	0.0	ND	0.0	0.0	2000
160150	A	ERGON ASPHALT & EMULSIONS, INC.	FONTANA	0.0	ND	0.3	0.0	1999
115586	A	SUNDANCE SPAS, INC	CHINO	0.0	ND	0.0	0.4	1996
51620	A	WHEELABRATOR NORWALK ENERGY CO INC	NORWALK	0.0	ND	0.0	0.0	1996
61743	A	AMERON STEEL FABRICATION DIVISION	FONTANA	0.0	ND	0.2	0.2	2000
55711	A	SUNLAW COGENERATION PARTNERS I	VERNON	0.0	ND	0.0	0.0	1996
124016	A	OAKLITE PRODUCTS (BRENT AMERICA, INC./ LEEDER ARDOX)	LA MIRADA	0.0	ND	0.1	0.1	2000
55714	A	SUNLAW COGENERATION PARTNERS I	VERNON	0.0	ND	0.0	0.0	1996
119127	A	PRC-DE SOTO INTERNATIONAL	GLENDALE	0.0	ND	0.0	0.0	2000
809	A	GARNER GLASS CO	CLAREMONT	0.0	ND	0.0	0.0	1996
1732	OB	INTL ELECTRONIC RESEARCH CORP	BURBANK	0.0	ND	0.0	0.0	1996
1746	A	UNITED ALLOYS INC	LOS ANGELES	0.0	ND	0.0	0.0	1998
3084	A	CARDINAL INDUSTRIAL FINISHES INC	SOUTH EL MONTE	0.0	ND	0.0	0.0	1996
3100	A	BAXTER HEALTHCARE CORP, I V SYSTEMS	IRVINE	0.0	ND	0.0	0.4	1994
3578	A	PRUDENTIAL OVERALL SUPPLY	CARSON	0.0	ND	0.0	0.0	1995
4616	OB	SUPERIOR IND INTL INC	VAN NUYS	0.0	ND	0.0	0.4	1997
5125	OB	UTILITY TRAILER MFG CO	INDUSTRY	0.0	ND	0.0	0.3	1996
5645	OB	STANDARD NICKEL CHROMIUM PLATING CO INC	LOS ANGELES	0.0	ND	0.0	0.0	1999
6163	A	OHLINE	GARDENA	0.0	ND	0.3	0.7	1996
6315	A	FLO-KEM, INC.	RANCHO DOMINGUEZ	0.0	ND	0.0	0.6	1999
6362	OB	JACUZZI WHIRLPOOL BATH INC	SANTA ANA	0.0	ND	0.0	0.0	1995
7010	A	PRUDENTIAL OVERALL SUPPLY	IRVINE	0.0	ND	0.0	0.0	1995
8560	A	PRUDENTIAL OVERALL SUPPLY CO	COMMERCE	0.0	ND	0.2	0.4	1995
8935	A	TRAIL RITE INC	SANTA ANA	0.0	ND	0.0	0.3	1996
10656	A	NEWPORT LAMINATES	SANTA ANA	0.0	ND	0.0	0.0	1996
12493	A	REMO INC	NORTH HOLLYWOOD	0.0	ND	0.0	0.0	1997
12879	OB	CYTEC ENGINEERED MATERIALS, INC	SAUGUS	0.0	ND	0.0	0.0	1994
14191	I	NIKLOR CHEMICAL COMPANY INC	CARSON	0.0	ND	0.0	0.0	2002
19953	OB	RISTON KELLER INC	IRVINE	0.0	ND	0.0	0.0	1996
21544	A	US GOVT, MARINE CORPS AIR STA @BLD	Tustin	0.0	ND	0.0	0.0	2000

Appendix A-1. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
22092	A	WESTERN TUBE & CONDUIT CORP	LONG BEACH	0.0	ND	0.0	0.6	1997
24647	A	J. B. I. INC	COMPTON	0.0	ND	0.0	0.2	1999
40806	A	NEW BASIS	RIVERSIDE	0.0	ND	0.7	0.2	1997
47459	OB	JACUZZI WHIRLPOOL BATH	IRVINE	0.0	ND	0.0	0.0	1995
51849	A	ELIMINATOR CUSTOM BOATS	MIRA LOMA	0.0	ND	0.0	0.0	1995
61209	OB	AKZO NOBEL CHEM INC, FILTROL CORP SUB OF	LOS ANGELES	0.0	ND	0.0	0.0	1996
70021	A	XERXES CORP (A DELAWARE CORP)	ANAHEIM	0.0	ND	0.0	0.0	1996
132343	A	SPECTRUM PAINT & POWDER, INC.	ANAHEIM	0.0	ND	0.2	0.7	1997
144677	A	PRATT & WHITNEY ROCKETDYNE/RUBY ACQ ENT	CANOGA PARK	0.0	ND	0.0	0.0	1996
149241	A	REGAL CULTURED MARBLE	POMONA	0.0	ND	0.0	0.2	1995
160916	A	FOAMEX INNOVATIONS, INC.	ORANGE	0.0	ND	0.4	0.4	1994
800087	A	MENASCO MFG CO (EIS USE)	BURBANK	0.0	ND	0.0	0.0	1997
800273	OB	CHEMOIL REF CORP (NSR USE ONLY)	SIGNAL HILL	0.0	ND	0.0	0.0	2000
800337	OB	CHEVRON U.S.A., INC (NSR USE)	LA HABRA	0.0	ND	0.0	0.0	1996

Notes:

- (a) A = Active; I = Inactive; OB = Out of Business (with the year in which the facility went out of business)
- (b) The specific risk driver listed in this HRA is no longer in use & the resulting risk has been eliminated or minimized.
- (c) SCAQMD staff has requested these facilities to update their HRAs.
- (d) This includes risk attributable to the emergency DICE. The total facility risks excluding the emergency DICE are less than 10 in a million.

APPENDIX A-2
Health Risks from Facilities with an Approved HRA
(listed by Facility ID)

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
550	A	LA CO., INTERNAL SERVICE DEPT	LOS ANGELES	0.3	ND	0.0	0.0	2008
772	A	DEFT INC	IRVINE	0.7	ND	0.0	0.0	1995
809	A	GARNER GLASS CO	CLAREMONT	0.0	ND	0.0	0.0	1996
1208	A-OB	MICROSEMI CORP	SANTA ANA	2.3	ND	0.0	0.0	2001
1226	A	HYATT DIE CAST & ENGINEERING CORP	CYPRESS	6.2	ND	0.0	0.1	1996
1634	OB	STEELCASE INC, WESTERN DIV	TUSTIN	0.5	ND	0.0	0.0	1995
1732	OB	INTL ELECTRONIC RESEARCH CORP	BURBANK	0.0	ND	0.0	0.0	1996
1744	A	KIRKHILL RUBBER CO	BREA	8.7	0.001	0.2	0.1	2007
1746	A	UNITED ALLOYS INC	LOS ANGELES	0.0	ND	0.0	0.0	1998
1992	A	PRUDENTIAL OVERALL SUPPLY	VAN NUYS	0.1	ND	0.0	0.0	1997
2526	A	CHEVRON PRODUCTS CO	VAN NUYS	1.3	ND	0.0	0.0	1996
2605	A	3M PHARMACEUTICALS	NORTHRIDGE	2.0	ND	0.4	0.4	1996
2613	A	US GOVT, NAVY DEPT,NAVAL WEAPONS STN	SEAL BEACH	2.9	ND	0.1	0.0	2002
2638	A	OCCIDENTAL COLLEGE	LOS ANGELES	1.5	ND	0.1	0.0	2007
2680	A	LA CO., SANITATION DISTRICT	WHITTIER	8.6	ND	0.0	0.0	1999
2852	A	THE WALT DISNEY COMPANY	BURBANK	6.4	0.03	0.0	0.0	1997
3084	A	CARDINAL INDUSTRIAL FINISHES INC	SOUTH EL MONTE	0.0	ND	0.0	0.0	1996
3093	A	LA CO., OLIVE VIEW/UCLA MEDICAL CENTER	SYLMAR	0.5	ND	0.0	0.0	1999
3100	A	BAXTER HEALTHCARE CORP, I V SYSTEMS	IRVINE	0.0	ND	0.0	0.4	1994
3134	A	THUMS LONG BEACH CO, UNIT NO.05	SAN PEDRO	0.8	ND	0.0	0.0	1996
3578	A	PRUDENTIAL OVERALL SUPPLY	CARSON	0.0	ND	0.0	0.0	1995
3609	I	AL'S PLATING CO INC	LOS ANGELES	7.8	ND	0.3	0.2	1999
3950	A	CROWN CORK & SEAL CO INC	LA MIRADA	4.6	ND	0.0	0.1	1997
3968	A	TABC, INC	LONG BEACH	1.4	ND	0.1	0.2	1999
4477	A	SO CAL EDISON CO	AVALON	6.3	0.02	0.0	0.0	2012
4616	OB	SUPERIOR IND INTL INC	VAN NUYS	0.0	ND	0.0	0.4	1997
5125	OB	UTILITY TRAILER MFG CO	INDUSTRY	0.0	ND	0.0	0.3	1996
5177	A	ITT GILFILLAN UNIT NO.02	VAN NUYS	0.9	ND	0.1	0.2	1998
5645	OB	STANDARD NICKEL CHROMIUM PLATING CO INC	LOS ANGELES	0.0	ND	0.0	0.0	1999
5723	A	DUCOMMUN AEROSTRUCTURES INC	ORANGE	6.7	ND	0.0	0.1	1999
5887	A	NEXGEN PHARMA INC	IRVINE	2.7	ND	0.0	0.0	1997
6163	A	OHLNE	GARDENA	0.0	ND	0.3	0.7	1996
6281	A	US GOVT,MARINE CORPS AIR STATION,EL TORO	SANTA ANA	0.5	ND	0.0	0.0	1996

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
6315	A	FLO-KEM, INC.	RANCHO DOMINGUEZ	0.0	ND	0.0	0.6	1999
6362	OB	JACUZZI WHIRLPOOL BATH INC	SANTA ANA	0.0	ND	0.0	0.0	1995
6384	A	LA CO., RANCHO LOS AMIGOS MEDICAL CENTER	DOWNEY	3.1	ND	0.0	0.1	1999
6459	OB	HONEYWELL INTERNATIONAL INC	VERNON	4.1	ND	0.0	0.0	1999
6643	A	TECHNICOLOR INC	NORTH HOLLYWOOD	6.5	ND	0.0	0.1	2007
6670	A	TRU CUT INC	LOS ANGELES	<1	ND	0.0	0.0	2002
7010	A	PRUDENTIAL OVERALL SUPPLY	IRVINE	0.0	ND	0.0	0.0	1995
7416	A	PRAXAIR INC	WILMINGTON	0.1	ND	0.0	0.0	2001
7427	A	OWENS-BROCKWAY GLASS CONTAINER INC	VERNON	3.6	0.02	0.0	0.1	1999
7533	A	HUGO NEU-PROLER CO	TERMINAL ISLAND	4.10		1.28	0.14	
7730	A	CARPENTER CO	RIVERSIDE	1.0	ND	0.0	1.3	2003
7949	A	CUSTOM FIBERGLASS MFG CO/CUSTOM HARDTOP	LONG BEACH	2.5	ND	0.0	0.0	1995
8015	A	ANADITE INC	SOUTH GATE	3.5	ND	0.6	0.8	1998
8309	A	CAMBRO MANUFACTURING CO	HUNTINGTON BEACH	1.7	ND	0.0	0.1	2000
8547	A	QUEMETCO INC (c)	INDUSTRY	4.4	0.02	0.1	0.7	2010
8560	A	PRUDENTIAL OVERALL SUPPLY CO	COMMERCE	0.0	ND	0.2	0.4	1995
8578	OB	ASSOCIATED CONCRETE PROD. INC	SANTA ANA	5.8	ND	0.1	0.6	1999
8820	A	REULAND ELECTRIC CO, H.BRITTON LEES	INDUSTRY	3.7	ND	0.0	0.0	1996
8935	A	TRAIL RITE INC	SANTA ANA	0.0	ND	0.0	0.3	1996
9114	I	SOMITEX PRINTS OF CAL INC	INDUSTRY	3.7	ND	0.1	0.0	1996
9163	A	INLAND EMPIRE UTL AGEN, A MUN WATER DIS	ONTARIO	3.4	ND	0.3	0.0	2007
9668	A	DELUXE LABORATORIES INC,DELUXE LABORATOR	HOLLYWOOD	2.1	ND	0.0	0.0	2000
10005	A	ELECTRONIC CHROME GRINDING CO INC	SANTA FE SPRINGS	3.0	0.01	0.2	0.1	2001
10245	A	LA CITY,SANITATION BUREAU,TERMINAL ISLAN	SAN PEDRO	1.8	ND	0.0	0.0	2000
10510	A	GREGG INDUSTRIES INC	EL MONTE	9.4	ND	0.6	0.6	2008
10656	A	NEWPORT LAMINATES	SANTA ANA	0.0	ND	0.0	0.0	1996
11142	OB	KEYSOR-CENTURY CORP	SAUGUS	17.0	ND	0.5	0.1	2000
11192	A	HI-SHEAR CORPORATION	TORRANCE	4.8	ND	0.0	0.0	2008
11435	A	THE PQ CORP	SOUTH GATE	3.0	ND	0.0	0.0	1998
11726	A	GE ENGINE SERVICES	ONTARIO	6.5	ND	0.1	0.6	1999
11818	A	HIXSON METAL FINISHING	NEWPORT BEACH	1502.0	1.09	0.2	0.1	2015
12493	A	REMO INC	NORTH HOLLYWOOD	0.0	ND	0.0	0.0	1997
12660	I	GOLDSHIELD FIBERGLASS, INC. PLANT #58	FONTANA	0.4	ND	0.0	0.0	1994
12879	OB	CYTEC ENGINEERED MATERIALS, INC	SAUGUS	0.0	ND	0.0	0.0	1994
13920	A	ST. JOSPEH HOSPITAL	ORANGE	7.7	0.004	0.8	0.3	2008
14146	A	MAC GREGOR YACHT CORP	COSTA MESA	5.5	ND	0.0	0.1	1998

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
14191	I	NIKLOR CHEMICAL COMPANY INC	CARSON	0.0	ND	0.0	0.0	2002
14217	OB	MODERN FAUCET MFG COMPANY	LOS ANGELES	0.0	ND	0.0	0.5	1996
14495	A	VISTA METALS CORP	FONTANA	19.8	0.06	0.0	0.3	2008
14502	A	VERNON CITY, LIGHT & POWER DEPT	VERNON	2.0	0.0004	0.0	0.0	2007
14544	OB	SANTA FE ENAMELING & METAL FINISHING CO	SANTA FE SPRINGS	0.8	ND	0.0	0.4	1999
15504	A	SCHLOSSER FORGE CO	RANCHO CUCAMONGA	9.5	ND	1.6	1.1	2002
15647	A	CUSTOM ENAMELERS INC	FOUNTAIN VALLEY	0.6	ND	0.1	0.0	2000
15736	A	HENRY CO	HUNTINGTON PARK	8.5	ND	0.0	0.0	2000
16044	I	SPECIALTY ORGANICS, INC.	IRWINDALE	0.1	ND	0.0	0.2	1997
16264	A	INTL COATINGS CO INC	CERRITOS	0.2	ND	0.0	0.0	1999
16642	A	ANHEUSER-BUSCH INC., (LA BREWERY)	VAN NUYS	2.7	ND	0.0	0.1	1999
16660	A	THE BOEING COMPANY	HUNTINGTON BEACH	3.8	0.01	0.2	0.0	1999
17301	A	ORANGE, COUNTY OF - SANITATION DISTRICT	FOUNTAIN VALLEY	6.6	0.001	0.4	0.3	2007
17325	A	ACE CLEARWATER ENTER.	PARAMOUNT	3.7	ND	0.0	0.0	2002
18294	A	NORTHROP GRUMMAN CORP, AIRCRAFT DIV	EL SEGUNDO	7.6	ND	0.1	0.1	1999
18378	A	GRUBER SYS INC	VALENCIA	0.8	ND	0.1	0.1	2004
18396	A	SPRAYLAT CORP	LOS ANGELES	3.2	0.00	0.7	0.0	2012
18439	OB	ACE PLATING CO INC	LOS ANGELES	4.1	ND	0.6	0.2	1998
18452	A	UCLA (REGENTS OF UC) (c)	LOS ANGELES	2.9	ND	0.0	0.1	1999
18508	A	AIR PROD & CHEM INC	LOS ANGELES	2.4	ND	0.1	0.8	1999
18648	OB	CROWN CITY PLATING CO.	EL MONTE	12.0	ND	0.4	0.1	2000
18931	A	GERDAU	RANCHO CUCAMONGA	52.7	3.08	3.0	3.2	2015
18989	A	BOWMAN PLATING CO INC	COMPTON	14.2	0.002	0.0	0.0	2007
18990	A	LIFE PAINT CO	SANTA FE SPRINGS	0.4	ND	0.0	0.0	2001
19953	OB	RISTON KELLER INC	IRVINE	0.0	ND	0.0	0.0	1996
19989	OB	PARKER HANNIFIN AEROSPACE CORP	IRVINE	0.3	ND	0.0	0.0	1999
20144	OB	CANON BUSINESS MACHINES INC	COSTA MESA	0.0	ND	0.0	0.1	1999
20197	A	LAC/USC MEDICAL CENTER	LOS ANGELES	7.5	ND	0.7	0.4	2007
20280	A	METAL SURFACES INC	BELL GARDENS	6.8	0.00	0.9	0.3	2011
20375	A	PRUDENTIAL OVERALL SUPPLY	RIVERSIDE	1.0	ND	0.0	0.1	1997
21544	A	US GOVT, MARINE CORPS AIR STA @BLD	Tustin	0.0	ND	0.0	0.0	2000
21615	OB	PERKINELMER OPTOELECTRONICS SC, INC	AZUSA	8.1	ND	0.2	0.1	1998
21895	A	AC PRODUCTS INC	PLACENTIA	0.5	ND	0.0	0.0	2003
22092	A	WESTERN TUBE & CONDUIT CORP	LONG BEACH	0.0	ND	0.0	0.6	1997
22229	A	PROCESSES BY MARTIN INC	LYNWOOD	0.0	ND	0.0	0.0	2002
22373	A	JEFFERSON SMURFIT CORPORATION (U.S.)	LOS ANGELES	0.7	ND	0.0	0.0	1996

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
22410	A	PALACE PLATING	LOS ANGELES	5.6	ND	0.7	0.4	2004
22467	A	LEFIELL MFG CO	SANTA FE SPRINGS	1.7	ND	0.7	0.2	2000
22551	A	THUMS LONG BEACH CO	SAN PEDRO	1.2	ND	0.0	0.0	2000
22556	A	THUMS LONG BEACH CO, UNIT NO.02	SAN PEDRO	0.8	ND	0.0	0.0	1996
22808	I	PRICE PFISTER INC	PACOIMA	0.9	ND	0.2	0.1	1996
23559	OB	JOHNSON CONTROLS BATTERY GROUP INC	FULLERTON	1.8	ND	0.0	0.1	2001
23907	A	JOHNS MANVILLE CORP	CORONA	13.0	ND	0.4	2.7	1999
24060	A	TOMKINS INDUSTRIES INC-LASCO PRODS GROUP	ANAHEIM	0.7	ND	0.0	0.0	1996
24118	A	DEVOE COATINGS CO	RIVERSIDE	0.1	ND	0.3	0.1	1999
24520	A	LA CO., SANITATION DISTRICTS	ROLLING HILLS ESTATE	0.3	ND	0.0	0.0	1998
24647	A	J. B. I. INC	COMPTON	0.0	ND	0.0	0.2	1999
24756	A	CRANE CO, HYDRO-AIRE DIV	BURBANK	0.6	ND	0.0	0.1	1997
24812	A	FARMER BROS CO	TORRANCE	0.1	ND	0.0	0.0	1999
25012	A	AMADA MFG AMERICA, INC	LA MIRADA	0.1	ND	0.0	0.0	2002
25070	A	LA CO., SANITATION DISTRICT (c)	WHITTIER	1.5	0.003	0.3	0.1	2009
25440	A	ROBERTSHAW CONTROLS CO, GRAYSON CONTROLS	LONG BEACH	2.7	ND	0.0	1.0	1998
25638	A	BURBANK CITY, PUB SERV DEPT	BURBANK	0.3	ND	0.3	0.0	1996
27343	OB	CON AGRA INC, GILROY FOODS DBA	SANTA ANA	7.1	ND	0.2	0.1	1995
27701	A	CADDOCK ELECTRONIC	RIVERSIDE	2.7	ND	0.0	0.1	2002
29110	A	ORANGE, COUNTYOF - SANITATION DISTRICT (d)	HUNTINGTON BEACH	10.7	ND	1.8	0.5	2007
34764	A	CADDOCK ELECTRONICS INC	RIVERSIDE	6.50		0.03	0.11	
35302	A	OWENS CORNING (c)	COMPTON	14.0	0.02	0.1	0.1	2000
35483	A	WARNER BROTHERS STUDIO FACILITIES	BURBANK	2.6	ND	0.1	0.3	1997
37336	A	COMMERCE REFUSE TO ENERGY FACILITY	COMMERCE	0.1	0.00	0.0	0.0	2010
37507	A	TROJAN BATTERY COMPANY	SANTA FE SPRINGS	2.6	0.001	1.1	1.3	2012
37603	A	SGL TECHNIC INC, POLYCARBON DIVISION	VALENCIA	7.8	ND	0.0	0.4	1998
38971	A	RICOH ELECTRONICS INC	IRVINE	5.6	ND	0.0	0.4	1995
39388	A	THUMS LONG BEACH CO, UNIT NO.03	SAN PEDRO	0.5	ND	0.0	0.0	1996
40806	A	NEW BASIS	RIVERSIDE	0.0	ND	0.7	0.2	1997
40829	A	HAWKER PACIFIC INC	SUN VALLEY	2.1	0.0003	0.0	0.1	2009
41229	A	LUBECO INC	LONG BEACH	14.0	ND	0.0	0.1	2002
42514	A	LA CO.,SANITATION DIST,CALABASAS LNDIFILL	AGOURA	1.1	0.00	0.1	0.0	2010
42633	A	LA CO., SANITATION DIST	POMONA	1.2	ND	0.0	0.0	1996
42676	A	AES PLACERITA INC	NEWHALL	0.1	ND	0.1	0.0	2003
42922	OB	CMC PRINTED BAG INC	WHITTIER	9.0	ND	0.0	0.0	1995
43201	A	SNOW SUMMIT INC	BIG BEAR LAKE	5.5	ND	0.2	0.0	2007

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
43436	A	TST, INC.	FONTANA	0.4	0.11	0.0	0.4	1997
44454	A	STRUCTURAL COMPOSITES IND	POMONA	8.6	0.001	0.0	0.2	2002
44577	A	LONG BEACH CITY, SERRF PROJECT	LONG BEACH	0.4	0.00	0.0	0.1	2011
45262	A	LA CO, SANITATION DISTRICT UNIT NO.02	GLENDALE	6.2	ND	0.0	0.1	1998
45489	A	ABBOTT CARDIOVASCULAR SYSTEMS, INC.	TEMECULA	3.8	0.01	1.3	0.0	2002
45938	A	E.M.E. INC/ELECTRO MACHINE & ENGINEERING	COMPTON	0.0	ND	0.0	0.0	1999
46268	A	CALIFORNIA STEEL INDUSTRIES INC	FONTANA	2.7	0.02	0.2	0.0	1995
47056	OB	MYERS CONTAINER CORP, IMACC CORP DIV	HUNTINGTON PARK	0.9	ND	0.2	2.0	2002
47459	OB	JACUZZI WHIRLPOOL BATH	IRVINE	0.0	ND	0.0	0.0	1995
48274	A	FENDER MUSICAL INST	CORONA	2.8	ND	0.0	0.4	1997
48300	A	PRECISION TUBE BENDING	SANTA FE SPRINGS	0.2	ND	0.0	0.0	2002
48323	A	SIGMA PLATING CO INC	LA PUENTE	13.8	ND	0.0	0.7	2001
49387	A	UNIV CAL, RIVERSIDE	RIVERSIDE	7.1	ND	0.0	0.0	1999
51620	A	WHEELABRATOR NORWALK ENERGY CO INC	NORWALK	0.0	ND	0.0	0.0	1996
51849	A	ELIMINATOR CUSTOM BOATS	MIRA LOMA	0.0	ND	0.0	0.0	1995
52517	A	REXAM PLC, REXAM BEVERAGE CAN COMPANY	CHATSWORTH	2.9	0.01	0.7	0.1	2009
54424	A	L & L CUSTOM SHUTTERS	PLACENTIA	5.5	ND	0.2	0.2	2001
54627	A	HICKORY SPRINGS OF CAL INC	COMMERCE	2.0	ND	0.0	0.5	1998
55711	A	SUNLAW COGENERATION PARTNERS I	VERNON	0.0	ND	0.0	0.0	1996
55714	A	SUNLAW COGENERATION PARTNERS I	VERNON	0.0	ND	0.0	0.0	1996
57094	A	GS ROOFING PRODUCTS CO, INC/CERTAINTeed (c)	WILMINGTON	7.0	ND	0.0	0.0	2000
57329	OB	KWIKSET CORP	ANAHEIM	3.4	ND	0.0	0.1	2000
61160	A	GE ENGINE SERVICES	ONTARIO	0.5	ND	0.7	0.0	2003
61209	OB	AKZO NOBEL CHEM INC, FILTROL CORP SUB OF	LOS ANGELES	0.0	ND	0.0	0.0	1996
61743	A	AMERON STEEL FABRICATION DIVISION	FONTANA	0.0	ND	0.2	0.2	2000
62679	A	KOP-COAT INC	VERNON	1.3	ND	0.0	0.5	1997
62897	OB	NORTHROP GRUMMAN CORP, MASD	PICO RIVERA	9.4	ND	1.0	0.5	2000
65381	A	SFPP, L.P. (NSR USE)	CARSON	2.4	ND	0.0	0.1	1999
65382	A	SFPP, L.P.	BLOOMINGTON	5.8	ND	0.0	0.0	1996
70021	A	XERXES CORP (A DELAWARE CORP)	ANAHEIM	0.0	ND	0.0	0.0	1996
79682	A	RAMCAR BATTERIES INC	COMMERCE	2.4	1.00	0.0	0.2	1998
82512	A	BREA CANON OIL CO	WILMINGTON	1.7	ND	0.0	0.0	1996
82513	A	BREA CANON OIL COMPANY INC	HARBOR CITY	1.4	ND	0.0	0.0	1996
83102	A	LIGHT METALS INC	INDUSTRY	4.5	0.01	0.0	2.7	2002
90546	OB	SORIN BIOMEDICAL INC	IRVINE	2.3	ND	0.0	0.0	1996
93346	A	WAYMIRE DRUM CO,INC.,S EL MONTE FACILITY	SOUTH EL MONTE	4.3	ND	0.1	0.2	1997

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
94872	A	METAL CONTAINER CORP	MIRA LOMA	0.1	ND	0.4	0.4	2002
99119	A	INTERPLASTIC CORP	HAWTHORNE	0.3	ND	0.1	0.3	1999
99773	A	CYTEC FIBERITE INC	ANAHEIM	2.2	0.0004	0.0	0.2	2000
101380	OB	GENERAL DYNAMICS OTS (DOWNEY) INC	DOWNEY	9.8	ND	0.0	0.1	2000
101977	A	SIGNAL HILL PETROLEUM INC	LONG BEACH	4.7	ND	0.6	1.0	1998
103659	OB	4MC-BURBANK, INC.	BURBANK	2.2	ND	0.6	0.0	2004
103888	A	SARGENT FLETCHER INC	EL MONTE	4.9	ND	0.2	0.0	1999
105598	A	SENIOR FLEXONICS INC/STAINLESS STEEL DVN	BURBANK	3.6	ND	1.0	0.5	2001
106009	A	VENOCO INC.	BEVERLY HILLS	1.2	ND	0.0	0.0	2005
106797	OB	SAINT-GOBAIN CONTAINERS LLC	LOS ANGELES	9.9	ND	0.0	0.1	2000
106838	A	VALLEY-TODECO, INC	SYLMAR	3.7	ND	0.2	0.2	2000
107149	A	MARKLAND MANUFACTURING INC	SANATA ANA	0.3	ND	0.1	0.1	2007
107168	I	ADVANCED SPA DESIGNS	LA HABRA	8.6	ND	0.0	0.0	1995
107350	A	NATIONAL O-RINGS	DOWNEY	1.5	ND	0.0	0.0	2001
108701	A	SAINT-GOBAIN CONTAINERS LLC	EL MONTE	7.3	ND	0.1	0.1	2000
109198	A	TORCH OPERATING COMPANY	BREA	5.0	ND	0.0	0.0	2001
110924	A	WESTWAY TERMINAL COMPANY	SAN PEDRO	8.0	ND	0.3	0.5	1997
111110	A	BRISTOL FIBERLITE INDUSTRIES, INC	SANTA ANA	0.1	ND	0.0	0.0	1995
111415	A	VAN CAN COMPANY	FONTANA	0.8	ND	0.0	0.1	1996
112192	OB	CONSOLIDATED DRUM RECONDITIONING CO INC	SOUTH GATE	0.3	ND	0.0	0.0	1997
113170	A	SANTA MONICA - UCLA MEDICAL CENTER (b)	SANTA MONICA	7.6	0.14	0.2	0.0	1997
113676	A	VICKERS	LOS ANGELES	3.0	ND	0.0	0.0	1995
114801	A	RHODIA INC.	LONG BEACH	0.1	ND	0.0	0.1	2006
115389	A	AES HUNTINGTON BEACH, LLC	HUNTINGTON BEACH	0.1	ND	0.0	0.0	1999
115394	A	AES ALAMITOS, LLC	LONG BEACH	0.6	ND	0.0	0.0	1999
115536	A	AES REDONDO BEACH, LLC	REDONDO BEACH	0.4	ND	0.0	0.0	1998
115586	A	SUNDANCE SPAS, INC	CHINO	0.0	ND	0.0	0.4	1996
115663	A	EL SEGUNDO POWER, LLC	EL SEGUNDO	0.3	ND	0.0	0.0	2000
116868	A	EQUILON ENT LLC/RIALTO TERMINAL	BLOOMINGTON	2.9	ND	0.0	0.0	1999
117560	A	EQUILON ENTER, LLC-SHELL OIL PROD. US	WILMINGTON	7.3	ND	0.0	0.1	1998
117785	A	BALL METAL BEVERAGE CONTAINER CORP.	TORRANCE	0.0	ND	0.2	0.9	2001
118406	A	CARSON COGENERATION COMPANY	CARSON	0.8	ND	0.2	0.0	2007
118998	OB	CYTEC FIBERITE INC	CULVER CITY	6.6	ND	0.0	0.2	1997
119127	A	PRC-DE SOTO INTERNATIONAL	GLENDALE	0.0	ND	0.0	0.0	2000
119907	A	BERRY PETROLEUM COMPANY	SANTA CLARITA	1.6	ND	0.2	0.7	1999
119920	A	PECHINEY CAST PLATE INC	VERNON	1.6	ND	0.3	0.3	1996

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
120088	A	BREITBURN ENERGY COMPANY, LLC	SANTA FE SPRINGS	0.8	ND	0.0	0.0	1998
122295	A	FALCON FOAM, A DIV OF ATLAS ROOFING CORP	LOS ANGELES	0.4	ND	0.0	0.0	1999
122300	A	BASFCORPORATION	COLTON	0.3	ND	0.6	0.0	2002
122822	I	CONSOLIDATED FILM INDUSTRIES	HOLLYWOOD	21.0	ND	0.1	0.4	2000
124016	A	OAKLITE PRODUCTS (BRENT AMERICA, INC./ LEEDER ARDOX)	LA MIRADA	0.0	ND	0.1	0.1	2000
124506	A	BOEING ELECTRON DYNAMIC DEVICES INC	TORRANCE	4.2	ND	0.5	0.1	1995
124805	A	EXIDE TECHNOLOGIES	COMMERCE	0.3	ND	0.0	0.0	2000
124806	OB	EXIDE TECHNOLOGIES	INDUSTRY	1.0	ND	0.0	0.0	1999
124838	OB	EXIDE TECHNOLOGIES	LOS ANGELES	156.0	10.00	3.8	63.0	2013
125281	OB	MODERN PLATING, ALCO CAD-NICKEL PLATING	LOS ANGELES	8.2	ND	0.1	0.0	1995
126060	A	STERIGENICS US, LLC	ONTARIO	3.8	0.00	0.0	0.0	2007
126191	A	STERIGENICS US, INC.	LOS ANGELES	3.3	ND	0.0	0.0	1996
126197	A	STERIGENICS US, INC.	LOS ANGELES	3.6	ND	0.0	0.0	1996
126536	A	CONSOLIDATED FOUNDRIES - POMONA	POMONA	1.5	ND	0.0	0.0	1999
126544	A	PAC FOUNDRIES-INDUSTRY	INDUSTRY	1.3	ND	0.6	0.1	1996
126964	A	EDWARDS LIFESCIENCES LLC	IRVINE	0.8	ND	0.0	0.0	1995
127568	A	ENGINEERED POLYMER SOLUTION, VALSPAR	MONTEBELLO	3.5	ND	0.1	0.5	2000
132343	A	SPECTRUM PAINT & POWDER, INC.	ANAHEIM	0.0	ND	0.2	0.7	1997
133405	A	BODYCOTE INC/BODYCOTE THERMAL PROCESSING	LOS ANGELES	2.4	ND	0.0	0.2	1999
133660	A	HAYDEN INDUSTRIAL PRODUCTS	CORONA	1.6	ND	0.8	0.4	1998
134018	A	INDUSTRIAL CONTAINER SERVICES-CA LLC	MONTEBELLO	5.2	ND	0.6	0.2	2000
134931	A	ALCOA GLOBAL FASTENERS, INC.	FULLERTON	0.6	ND	1.9	0.0	1997
134943	A	ALCOA GLOBAL FASTENERS, INC. SOUTH BAY	TORRANCE	2.6	ND	0.6	0.0	2008
136148	A	E/M COATING SERVICES	NORTH HOLLYWOOD	5.8	ND	0.3	0.6	1998
137517	A	PACIFIC TERMINALS LLC	ETIWANDA	2.7	ND	0.0	0.2	2000
140499	A	AMERESCO HUNTINGTON BEACH, L.L.C.	HUNTINGTON BEACH	7.0	ND	0.0	0.0	1995
140811	A	DUCOMMUN AEROSTRUCTURES INC	MONROVIA	3.5	0.01	0.0	0.0	2002
140961	A	GKN AEROSPACE TRANSPARENCY SYS INC	GARDEN GROVE	6.0	ND	0.0	0.5	1996
142267	A	FS PRECISION TECH LLC	RANCHO DOMINGUEZ	2.0	ND	0.1	0.2	2001
144677	A	PRATT & WHITNEY ROCKETDYNE/RUBY ACQ ENT	CANOGA PARK	0.0	ND	0.0	0.0	1996
146570	A	ROHM AND HAAS CHEMICALS LLC	LA MIRADA	6.2	ND	0.5	0.8	1999
148925	A	CHERRY AEROSPACE LLC	SANTA ANA	9.7	ND	0.1	0.2	1999
149241	A	REGAL CULTURED MARBLE	POMONA	0.0	ND	0.0	0.2	1995
151415	A	LINN WESTERN OPERATING, INC	BREA	3.4	ND	0.0	0.0	1999
151798	A	TESORO REFINING AND MARKETING CO	CARSON	2.8	ND	0.1	0.0	1999
151899	A	VINTAGE PRODUCTION CALIFORNIA LLC	NEWHALL	3.5	ND	0.0	0.2	2000

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
152054	A	LINN WESTERN OPERATING INC	BREA	1.1	ND	0.0	0.1	1996
152501	A	PRECISION SPECIALTY METALS INC	LOS ANGELES	0.5	ND	0.4	0.2	2001
153546	A	HUCK INTL INC. DBA ALCOA FASTENING SYS.	CARSON	3.3	ND	0.0	0.0	1999
155828	A	GARRETT AVIATION SVCS. LLC DBA STANDARD	LOS ANGELES	<10	0.001	0.2	0.3	2002
156741	A	HARBOR COGENERATION CO	WILMINGTON	0.1	ND	0.0	0.0	2002
157451	A	VERNON MACHINE CORP, BENDER US DBA	VERNON	4.4	0.001	1.0	0.0	2002
160150	A	ERGON ASPHALT & EMULSIONS, INC.	FONTANA	0.0	ND	0.3	0.0	1999
160437	A	SOUTHERN CALIFORNIA EDISON	SAN BERNARDINO	2.3	<0.01	<0.01	<0.01	2013
160916	A	FOAMEX INNOVATIONS, INC.	ORANGE	0.0	ND	0.4	0.4	1994
161142	A	FOAMEX INNOVATIONS, INC.	COMPTON	0.3	0.00	0.0	0.0	2010
161300	A	SAPA EXTRUDER, INC	INDUSTRY	1.3	ND	0.0	0.0	1999
164864	A	ARROWHEAD BRASS & PLUMBING	LOS ANGELES	5.7	ND	0.3	0.0	1995
165192	A	TRIUMPH AEROSTRUCTURES, LLC (b)	HAWTHORNE	19.7	ND	0.6	0.2	1999
167981	A	TESORO LOGISTICS OPERATIONS LLC	WILMINGTON	2.8	ND	0.0	0.0	2000
168088	A	PCCR USA	LYNWOOD	6.5	ND	0.1	1.6	1995
169990	A	SPS TECHNOLOGIES, LLC	GARDENA	8.9	ND	0.1	0.1	1999
171107	A	PHILLIPS 66 CO/LA REFINERY WILMINGTON PL	WILMINGTON	23.2	0.29	0.1	0.7	2013
171109	A	PHILLIPS 66 COMPANY/LOS ANGELES REFINERY	CARSON	6.6	0.11	0.0	0.3	2011
172878	A	TESORO LOGISTICS OPERATIONS LLC LONG BEA	LONG BEACH	2.4	ND	0.0	0.0	1999
173913	A	TRIUMPH PROCESSING, EMBEE DIV, INC.	SANTA ANA	6.6	ND	0.2	0.6	2000
174591	A	TESORO REFINING & MARKETING CO LLC, CAL (c)	WILMINGTON	4.3	ND	0.1	0.2	1995
174655	A	TESORO REFINING & MARKETING CO, LLC	CARSON	7.3	ND	0.3	0.1	2000
174703	A	TESORO REFINING & MARKETING CO LLC CARSO	CARSON	3.0	ND	0.0	0.0	1994
174710	A	TESORO LOGISTICS OP LLC, VINVALE MARKETI	SOUTH GATE	9.0	ND	0.0	0.0	1994
175124	A	AEROJET ROCKETDYNE OF DE, INC.	CANOGA PARK	8.7	ND	0.0	0.0	1995
175191	A	FREEPORT-MCMORAN OIL & GAS	LOS ANGELES	2.7	ND	0.0	0.1	1997
176967	A	GAS RECOVERY SYSTEMS, INC	IRVINE	20.1	0.18	0.6	0.3	2009
177042	A	SOLVAY USA, INC	LONG BEACH	4.3	ND	0.3	0.0	2001
800003	A	HONEYWELL INTERNATIONAL INC	TORRANCE	1.8	ND	0.0	0.0	1999
800007	OB	ALLIED SIGNAL INC (NSR USE ONLY)	EL SEGUNDO	3.6	ND	0.0	0.5	2000
800022	A	CALNEV PIPE LINE CO (NSR USE)	BLOOMINGTON	5.9	ND	0.0	0.1	1999
800026	A	ULTRAMAR INC (NSR USE ONLY)	WILMINGTON	7.2	0.18	0.7	0.2	2012
800030	A	CHEVRON PRODUCTS CO.	EL SEGUNDO	2.7	0.28	0.3	0.1	2001
800032	A	CHEVRON U.S.A. INC (EIS USE)	MONTEBELLO	7.5	0.14	0.0	0.2	1999
800035	A	CONTINENTAL AIRLINES INC (NSR USE ONLY)	LOS ANGELES	2.8	ND	0.0	0.1	1995
800037	A	DEMENNO/KERDOON	COMPTON	4.9	0.01	0.0	0.0	2009

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
800038	A	THE BOEING COMPANY - C17 PROGRAM	LONG BEACH	4.8	ND	0.2	0.1	1999
800039	I	DOUGLAS PRODUCTS DIVISION	TORRANCE	2.4	ND	0.0	0.0	1996
800041	A	DOW CHEM U.S.A. (NSR USE)	TORRANCE	4.4	ND	0.1	0.0	2000
800047	I	FLETCHER OIL & REF CO	CARSON	5.9	ND	0.0	0.0	1998
800056	A	KINDER MORGAN LIQUIDS TERMINALS, LLC	WILMINGTON	2.3	0.01	0.0	0.0	1997
800057	A	KINDER MORGAN LIQUIDS TERMINALS, LLC	CARSON	8.5	ND	0.0	0.1	1999
800063	A	GROVER PROD. CO (EIS USE)	LOS ANGELES	3.3	ND	0.9	0.1	2001
800066	A	HITCO CARBON COMPOSITES INC	GARDENA	6.4	ND	0.3	0.0	1995
800067	A	BOEING SATELLITE SYSTEMS INC	EL SEGUNDO	6.2	ND	0.0	0.1	2000
800074	A	LA CITY, DWP HAYNES GENERATING STATION	LONG BEACH	0.2	ND	0.0	0.0	2000
800075	A	LA CITY, DWP SCATTERGOOD GENERATING STA	PLAYA DEL REY	0.0	ND	0.0	0.0	2000
800079	A	PETRO DIAMOND TERMINAL CO	LONG BEACH	8.3	ND	0.0	0.2	1998
800087	A	MENASCO MFG CO (EIS USE)	BURBANK	0.0	ND	0.0	0.0	1997
800089	A	EXXONMOBIL OIL CORPORATION	TORRANCE	7.7	0.15	0.2	0.5	2013
800091	A	MOBIL OIL CORP (NSR USE ONLY)	ANAHEIM	0.7	ND	0.0	0.0	1999
800111	OB	THE BOEING COMPANY	DOWNEY	2.3	ND	0.0	0.1	1996
800113	A	ROHR, INC	RIVERSIDE	7.2	0.01	0.9	0.0	2007
800127	A	SO CAL GAS CO (EIS USE)	MONTEBELLO	1.0	0.00	0.0	0.0	2009
800149	A	US BORAX INC	WILMINGTON	9.5	ND	0.0	0.0	2000
800150	A	US GOVT, AF DEPT, MARCH AFB (NSR USE)	RIVERSIDE	7.4	0.02	0.3	0.0	2008
800168	A	PASADENA CITY, DWP (EIS USE)	PASADENA	0.2	ND	0.7	0.0	1996
800171	A	EXXONMOBIL OIL CORPORATION	VERNON	5.3	ND	0.1	0.0	1997
800181	A	CALIFORNIA PORTLAND CEMENT CO (c)	COLTON	2.0	ND	0.0	0.4	1996
800182	A	RIVERSIDE CEMENT CO (c)	RIVERSIDE	7.8	0.11	0.1	0.1	2001
800183	A	PARAMOUNT PETR CORP (EIS USE)	PARAMOUNT	9.6	ND	0.0	0.0	2002
800184	A	GOLDEN WEST REF CO	SANTA FE SPRINGS	8.8	ND	0.2	0.1	1997
800189	A	DISNEYLAND RESORT	ANAHEIM	3.3	0.03	0.1	0.1	2009
800193	A	LA CITY, DWP VALLEY GENERATING STATION	SUN VALLEY	0.2	ND	0.3	0.0	1999
800196	A	AMERICAN AIRLINES INC (EIS USE)	LOS ANGELES	5.4	ND	0.9	0.1	2002
800198	A	ULTRAMAR INC (NSR USE ONLY)	WILMINGTON	5.9	ND	0.0	0.1	1999
800202	A	UNIVERSAL STUDIOS INC (EIS USE)	UNIVERSAL CITY	2.4	ND	0.0	0.0	1996
800204	OB	SIMPSON PAPER CO	POMONA	3.4	ND	0.0	0.0	1996
800209	A	BKK CORPORATION, LANDFILL DIVISION GNRL	WEST COVINA	6.9	ND	0.0	0.1	2000
800214	A	LA CITY, SANITATION BUREAU (c)	PLAYA DEL REY	7.6	ND	0.1	0.0	1999
800236	A	LA CO. SANITATION DIST	CARSON	7.2	ND	0.2	0.1	2007
800264	A	EDGINGTON OIL COMPANY	LONG BEACH	4.8	0.001	0.0	0.0	2002

Appendix A-2. Continued.

Facility ID	Facility Status (a)	Facility Name	City	Cancer Risk (per million)	Cancer Burden	Non-Cancer Acute Hazard Index	Non-Cancer Chronic Hazard Index	HRA Approval Date
800267	A	TRIUMPH PROCESSING, INC.	LYNWOOD	0.5	0.00	0.1	0.4	2012
800273	OB	CHEMOIL REF CORP (NSR USE ONLY)	SIGNAL HILL	0.0	ND	0.0	0.0	2000
800279	A	SFPP, L.P.	ORANGE	5.9	ND	0.0	0.2	1999
800288	A	UNIV CAL IRVINE (NSR USE ONLY)	IRVINE	5.6	ND	0.0	0.1	1996
800318	A	GRISWOLD INDUSTRIES	COSTA MESA	9.5	0.01	0.1	0.0	2001
800320	A	AMVAC CHEMICAL CORP	LOS ANGELES	0.0	ND	0.1	0.3	2004
800325	A	TIDELANDS OIL PRODUCTION CO	LONG BEACH	1.9	ND	0.1	0.6	1999
800327	A	GLENDALE CITY, GLENDALE WATER & POWER	GLENDALE	0.6	ND	0.0	0.0	1999
800337	OB	CHEVRON U.S.A., INC (NSR USE)	LA HABRA	0.0	ND	0.0	0.0	1996
800343	A	BOEING SATELLITE SYSTEMS, INC	EL SEGUNDO	0.3	ND	0.0	0.2	1996
800372	A	EQUILON ENTER. LLC, SHELL OIL PROD. US	CARSON	6.9	ND	0.4	0.1	2001
800373	I	CENCO REFINING COMPANY	SANTA FE SPRINGS	9.7	ND	0.3	0.1	2000
800387	A	CAL INST OF TECH	PASADENA	2.4	ND	0.1	0.0	2007
800408	A	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	MANHATTAN BEACH	1.4	ND	0.9	0.1	1998
800409	A	NORTHROP GRUMMAN SPACE & MISSION SYSTEMS	REDONDO BEACH	5.5	ND	0.5	0.2	1998
800436	A	TESORO REFINING AND MARKETING CO	WILMINGTON	10.7	0.37	0.3	0.4	2013

Notes:

- a) A = Active; I = Inactive; OB = Out of Business (with the year in which the facility went out of business)
- b) The specific risk driver listed in this HRA is no longer in use & the resulting risk has been eliminated or minimized.
- c) SCAQMD staff has requested these facilities to update their HRAs.
- d) This includes risk attributable to the emergency DICE. The total facility risks excluding the emergency DICE are less than 10 in a million.

Appendix A-3. Status of Risk Reduction Plans

Fac. ID	Facility Name	Submitted	Approved	Implemented	Residual Risk
7427	Owens-Brockway Glass	Yes	Yes	Yes	Cancer: 3.60
					Acute HI: 0.01
					Chronic HI: 0.06
					Can. Burden: 0.000
7730	E.R. Carpenter	Yes	Yes	Yes	Cancer: 0.96
					Acute HI: 0.03
					Chronic HI: 1.34
					Can. Burden: 0.000
8015	Anadite Inc.	Yes	Yes	Yes	Cancer: 3.5
					Acute HI: 0.63
					Chronic HI: 0.78
					Can. Burden: n/a
8547	Quemetco <i>A new HRA is being prepared using post-RRP emissions.</i>	Yes	Yes	Yes	Cancer: 4.4 (d)
					Acute HI: 0.086
					Chronic HI: 0.74
					Can. Burden 0.023
8570	Embee Inc.	Yes	Yes	Yes	Cancer: 6.6
					Acute HI: 0.21
					Chronic HI: 0.58
					Can. Burden: n/a
11818	Hixson Metal Finishing	Yes	Yes	In Progress	Cancer:
					Acute HI:
					Chronic HI:
					Can. Burden:
14191	Nicklor Chemical Co.	Yes	Yes	Yes	Cancer: 0.00
					Acute HI: 0 (a)
					Chronic HI: 0 (a)
					Can. Burden: 0.000
15504	Schlosser Forge Co.	Yes	Yes	Yes	Cancer: 9.5
					Acute HI: 1.59
					Chronic HI: 1.11
					Can. Burden: 0.067
18294	Northrop-Grumman	Yes	Yes	Yes	Cancer: 7.6
					Acute HI: 0.13
					Chronic HI: 0.05
					Can. Burden: n/a
22410	Palace Plating	Yes	Yes	Yes	Cancer: 5.6 (b)
					Acute HI: 0.73
					Chronic HI: 0.38
					Can. Burden: n/a
25012	Amada Manufacturing America, Inc.	Yes	Yes	Yes	Cancer: <0.1
					Acute HI: 0.00
					Chronic HI: 0.00
					Can. Burden: 0.000
41229	Lubeco, Inc.	Yes	Yes	Yes	Cancer: 14.0
					Acute HI: 0.00
					Chronic HI: 0.12
					Can. Burden: n/a

Appendix A-3. Concluded

Fac. ID	Facility Name	Submitted	Approved	Implemented	Residual Risk
45938	E.M.E. Inc.	Yes	Yes	Yes	Cancer: <0.1
					Acute HI: 0.00
					Chronic HI: < 0.01
					Can. Burden: 0.000
48323	Sigma Plating Co.	Yes	Yes	Yes	Cancer: 13.8
					Acute HI: 0.01
					Chronic HI: 0.74
					Can. Burden: 0.017
61160	GE Engine Services	Yes	Yes	Yes	Cancer: 0.50
					Acute HI: 0.7
					Chronic HI: 0.01
					Can. Burden: 0.000
116459	GE Engine Services	Yes	Yes	Yes	Cancer: 9.3
					Acute HI: 0.19
					Chronic HI: 0.25
					Can. Burden: n/a
119127	PRC DeSoto International	Yes	Yes	Yes	Cancer: 0 (a)
					Acute HI: < 0.01
					Chronic HI: < 0.01
					Can. Burden: 0.000
124838	Exide Technologies	Yes	Yes	In Progress	Cancer:
					Acute HI:
					Chronic HI:
					Can. Burden:
126501	Vought Aircraft Industries, Inc.	Yes	Yes	Yes	Cancer: 19.7 (c)
					Acute HI: 0.64
					Chronic HI: 0.24
					Can. Burden: n/a
134931	Alcoa Global Fasteners, Inc.	Yes	Yes	Yes	Cancer: 0.6
					Acute HI: 1.90
					Chronic HI: 0.02
					Can. Burden: 0.000
800037	DeMenno/Kerdoon	Yes	Yes	Yes	Cancer: 4.9
					Acute HI: < 0.01
					Chronic HI: 0.02
					Can. Burden: 0.01
800063	Grover Products Co.	Yes	Yes	Yes	Cancer: 3.3
					Acute HI: 0.88
					Chronic HI: 0.07
					Can. Burden: 0.039
800196	American Airlines, Inc.	Yes	Yes	Yes	Cancer: 5.4
					Acute HI: 0.86
					Chronic HI: 0.08
					Can. Burden: 0.190

- (a) Facility left the South Coast Air Basin so their risks are zero.
- (b) Facility is shutdown so their risks are zero.
- (c) The specific risk driver listed in this HRA is no longer in use & the resulting risk has been eliminated.
- (d) Staff is reviewing an updated HRA conducted since the RRP was approved and implemented (see section 2.4.8 of this Annual Report).

Appendix B

Trends in Ambient Air Toxics in the South Coast Air Basin and Vicinity

The California Air Resources Board (CARB) has maintained toxics monitoring network since the late 1980's.^{XV} In this appendix, trends in cancer risks are illustrated for sites in the South Coast Air Basin (Basin) and vicinity. Health risk levels for the most recent three-year period (i.e., 2011 to 2013) are also shown for the air toxics which are monitored. The CARB monitoring network does not include diesel particulate matter, which contributes significantly to cancer risks in the Basin. Since this is ambient air quality data, both mobile and stationary emission sources are captured in the health risk levels provided here. Looking at this historical data set illustrates the benefits of past regulatory control efforts and also shows the way for future control strategies.

SCAQMD has cooperated with CARB at four air toxics monitoring sites in the Basin and one station just outside of the Basin as shown in Figure B-1. The Basin sites include Los Angeles, Burbank, Long Beach, and Riverside-Rubidoux. In 2013, the Long Beach station was shut down and the partial year's data is not presented in this appendix from that station. In addition, the Burbank station was shut down in 2014, though it still reported a full year's worth of data in 2013, so it is included here. Staff is working to identify new monitoring sites to replace the Burbank and Long Beach stations. Simi Valley has also been added to this analysis since it is just outside the western edge of the Basin and represents conditions in the western end of the San Fernando Valley. The measurements consist of 24-hour integrated samples collected once every 12 days. Table B-1 lists the toxic air contaminants analyzed here. The carcinogens in the table are identified with an asterisk.

^{XV} Information about and data from ARB's toxic monitoring data are available at:
<http://www.arb.ca.gov/adam/toxics/toxics.html>

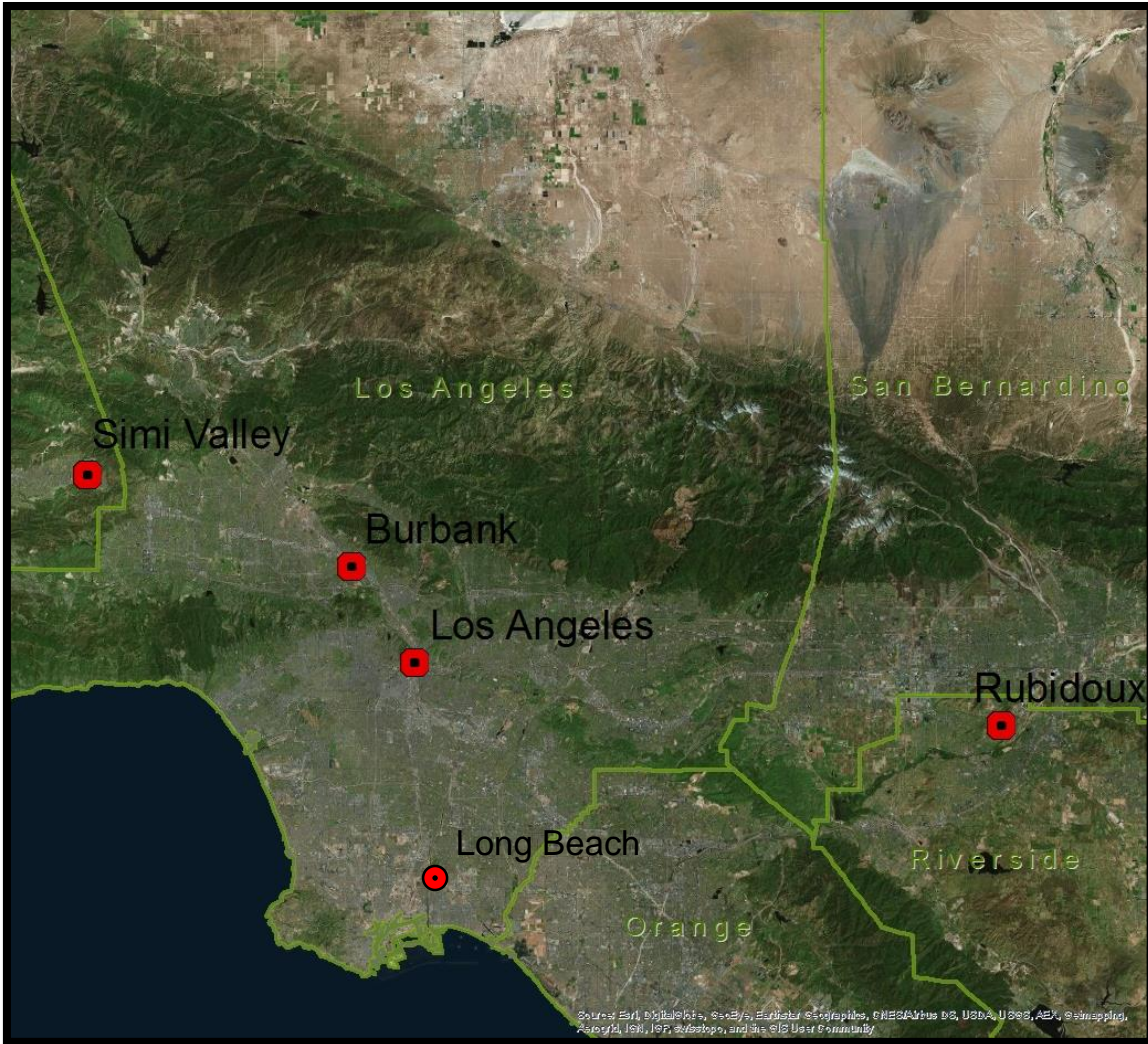


Figure B-1. ARB toxic monitoring sites in the South Coast Air Basin and vicinity

Table B-1. Toxic Air Contaminants Considered

Toxic VOC		Toxic PM
Acetaldehyde*	Methyl Bromide	Hexavalent Chromium*
Acrolein	Methyl Chloroform	Lead*
Benzene*	Methyl Ethyl Ketone	Manganese
1,3-Butadiene*	Methylene Chloride*	Nickel*
Carbon Tetrachloride*	Perchloroethylene*	Selenium
Chloroform*	Styrene	
Ethyl Benzene*	Toluene	
Formaldehyde*	Trichloroethylene*	

* carcinogen

Inhalation cancer risks^{xvi} have decreased significantly at all stations since 1990 as shown in Figure B-2. Specifically, risks have decreased by 84, 80, 75, and 77 percent at Burbank, Los Angeles, Riverside, and Simi Valley, respectively. The improvement is primarily from reductions in ambient concentrations of benzene (88 to 91 percent) and 1,3-butadiene (81 to 89 percent) and secondarily from decreases in hexavalent chromium (67 to 93 percent) and perchloroethylene (85 to 96 percent) concentrations.

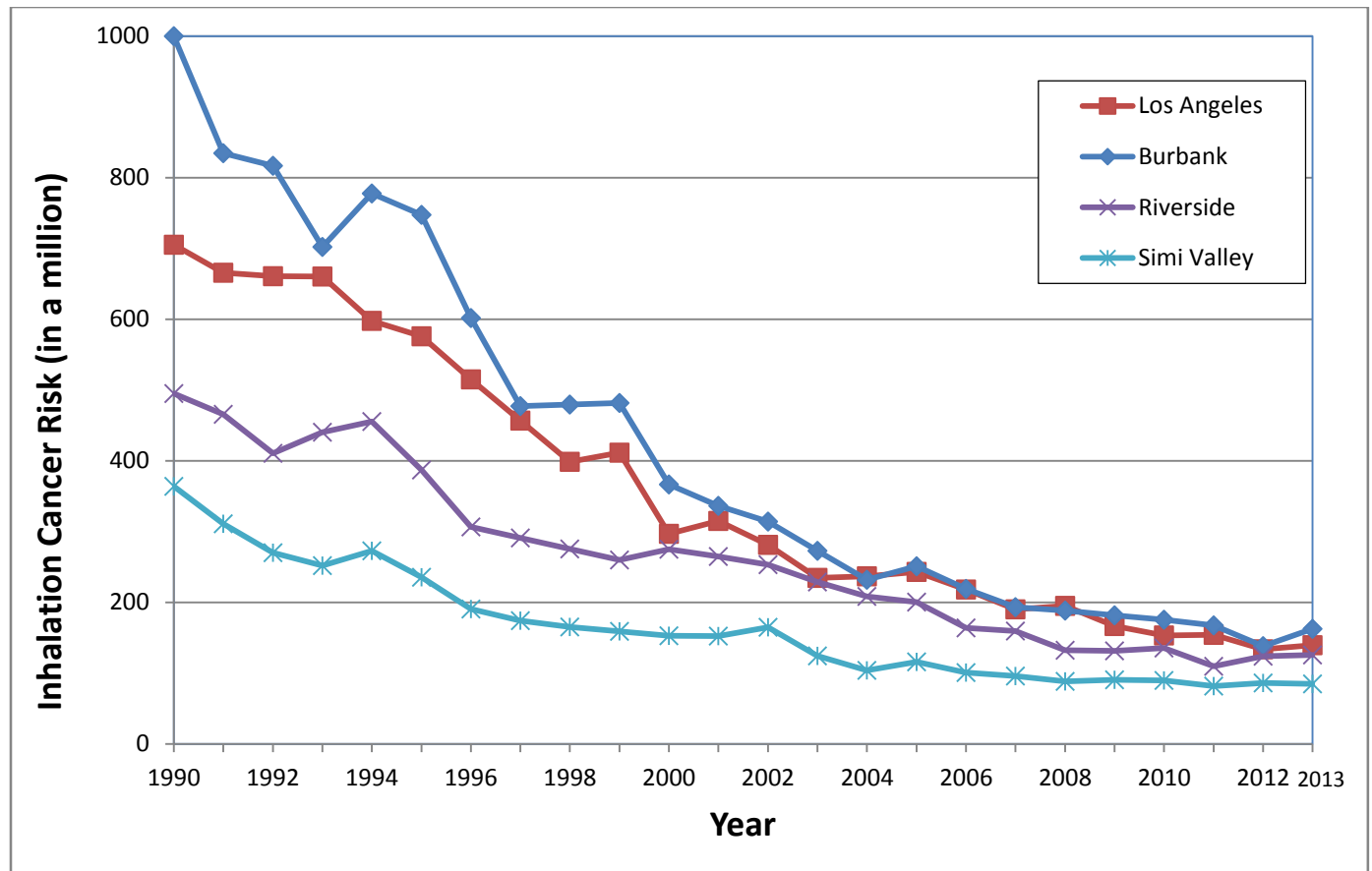


Figure B-2. Trends in inhalation cancer risks in the South Coast Air Basin and vicinity (excluding cancer risks from diesel particulate matter)

The risk reductions shown in Figure B-2 occurred in spite of significant increases in population and vehicle activity. As shown in Table B-2, population increased by 32.8 percent since 1990 and daily VMT, vehicle population, and daily fuel consumption increased by 38.0, 46.1, and 25.8 percent, respectively.

^{xvi} The risks presented in this appendix do not take into account the new OEHHA HRA guidance approved in 2015.

Table B-2. Change in Population and Vehicle Activity in the SCAQMD Since 1990

Activity Variable	1990	2013	% Increase
Population	13,083,594	17,378,940	32.8
Daily VMT (in thousands of miles per day)	282,561	389,892	38.0
Vehicle Population	7,547,354	11,023,000	46.1
Daily Fuel Consumption (in thousands of gallons per day)	18,338	23,069	25.8

Source: http://www.arb.ca.gov/app/emsinv/trends/ems_trends.php.

VMT = vehicle miles travelled.

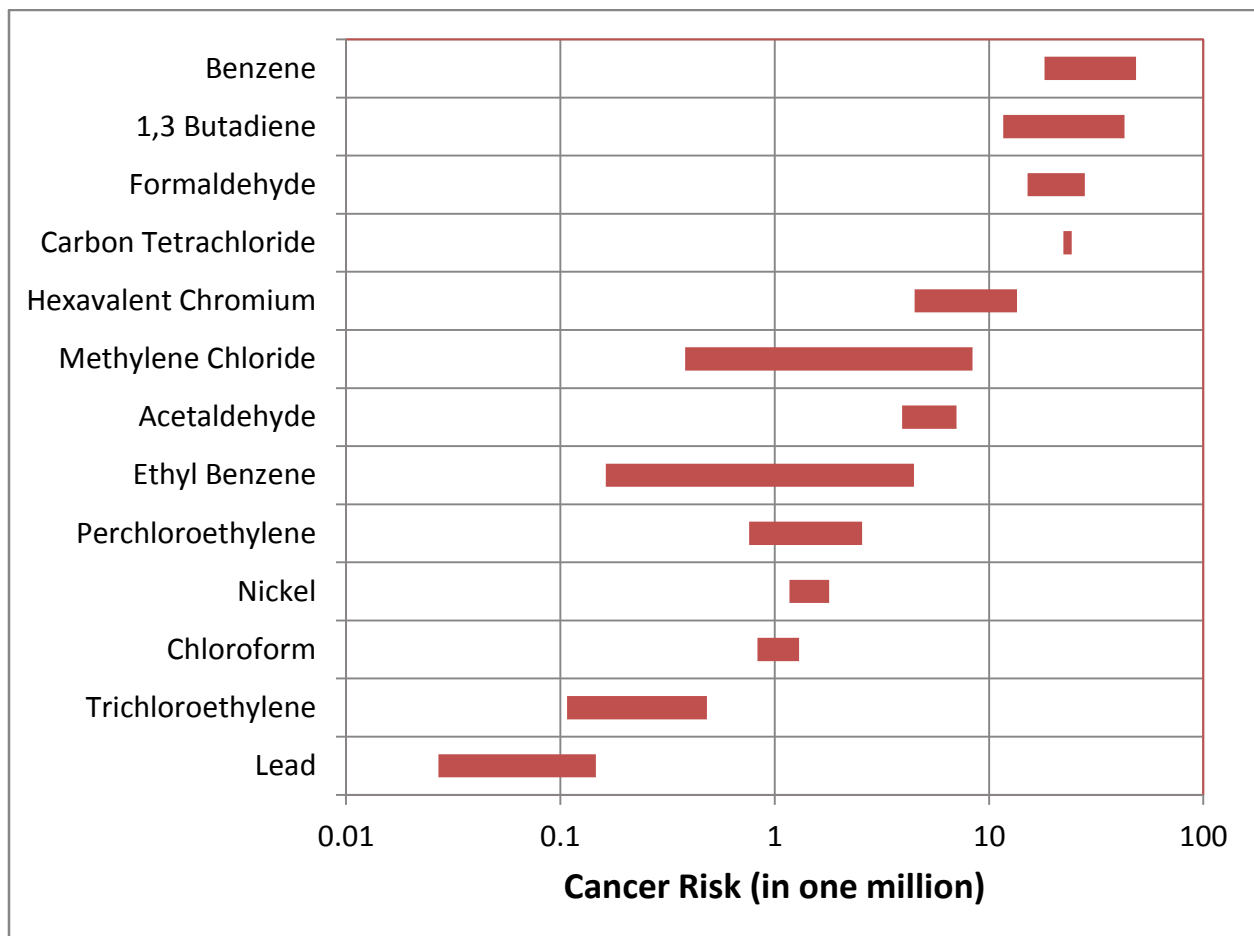


Figure B-3. Inhalation cancer risks in the Basin and vicinity over the period, 2011 to 2013 (excluding diesel particulate matter)

The relative importance of each of the toxics is illustrated in the Figure B-3 above. The range of cancer risks for the four sites analyzed here are shown for the most recently

available three-year period (2011 to 2013). Benzene, 1,3-butadiene, formaldehyde, carbon tetrachloride, and hexavalent chromium are the largest contributors to the inhalation cancer risks, contributing individually from 5 to around 49 in a million. The ambient carbon tetrachloride concentrations observed in the Basin are not from a local source of emissions but represent a background condition. Note that there is little variability in cancer risks attributable to carbon tetrachloride as indicated by its short bar in Figure B-3. In fact, there is little variability statewide in carbon tetrachloride concentrations, with concentrations varying by less than ten percent. Methylene chloride, acetaldehyde, ethyl benzene, perchloroethylene, chloroform, and nickel each contribute between 1 and 10 in a million and trichloroethylene and lead contribute less than 1 in a million to the inhalation cancer risks.

As demonstrated in the series of Multiple Air Toxics Exposure Studies (MATES) conducted by the SCAQMD, diesel particulate matter (DPM) is by far the largest contributor to inhalation cancer risks observed in the Basin. MATES IV attributed about 68 percent of the inhalation cancer risks to DPM based on emissions from 2012,^{XVII} compared to 84% in MATES III based on emissions in 2005.^{XVIII} The total cancer risks shown in Figures B-2 and B-3 therefore represent only about 35 percent of the population weighted inhalation cancer risks found in the MATES IV study.

^{XVII} See page ES-2 of the Executive Summary which is available at:
<http://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15>.

^{XVIII} See page ES-3 of the Executive Summary which is available at:
<http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iii/mates-iii-final-report>.

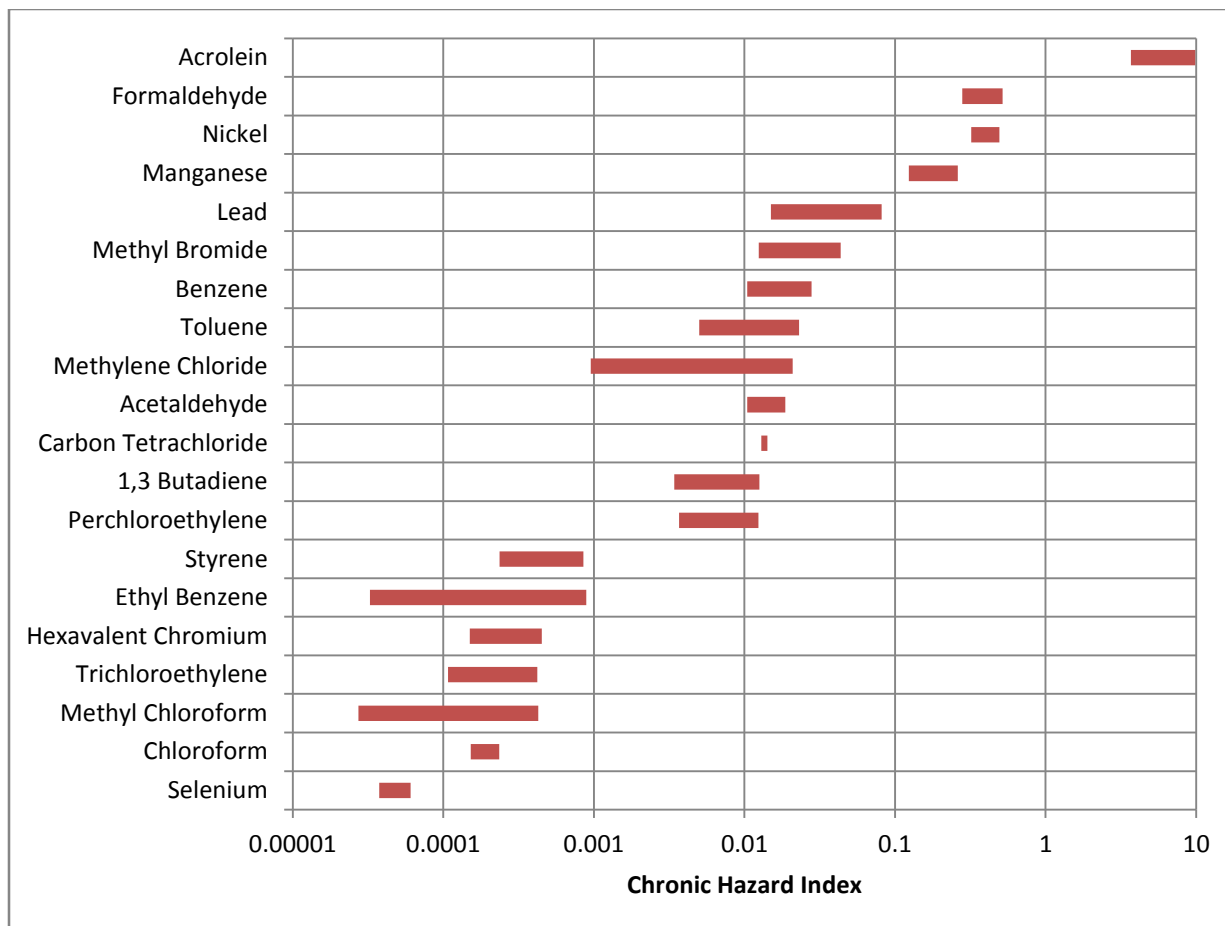


Figure B-4. Non-cancer chronic risks in the Basin and vicinity over the period, 2011 to 2013

The range of chronic non-cancer risks for the four sites analyzed here are shown above in Figure B-4 for the most recently available three-year period (2011 to 2013). For each toxic, the ratio of the observed concentration to the pollutant’s chronic reference exposure level (REL)^{XIX} is shown. Ratios greater than one indicate the potential for adverse health effects. Note that acrolein, a respiratory irritant, is the only toxic in which ambient concentrations are above its REL. It should be noted that the ambient concentrations of acrolein are above its REL throughout the state.

^{XIX} The REL is an exposure level at or below which no non-cancer adverse health is anticipated to occur in a human population for a specific duration. This definition is taken directly from: OEHHA, 2003 - *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*.

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 36

PROPOSAL: Amend Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

SYNOPSIS: The proposed amendment seeks to minimize hexavalent chromium (Cr^{+6}) emissions and risk from cement manufacturing operations and the property after facility closure while streamlining Cr^{+6} ambient monitoring. The proposed amendments will establish the conditions under which monitoring can be reduced or eliminated. In addition, the proposed amendments include a proposed modification to the fence-line ambient Cr^{+6} threshold to reflect changes made by the Office of Environmental Health Hazard Assessment to risk assessment guidelines, as well as proposing minor revisions.

COMMITTEE: Stationary Source, April 17, May 15 and September 18, 2015, Reviewed

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

1. Certifying the Final Environmental Assessment for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities; and
2. Amending Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities.

Barry R. Wallerstein, D.Env.
Executive Officer

Background

Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities was adopted in November 2005. The original rule requires cement manufacturing facilities to comply with specific requirements applicable to various operations as well as materials handling and transport at the facilities. Riverside Cement (RC) in Riverside and California Portland Cement Company (CPCC) in Colton are the two cement manufacturing facilities in the SCAQMD's jurisdiction subject to Rule 1156.

Rule 1156 was amended in March 2009 to further reduce particulate emissions and to address unexpected elevated ambient concentrations of the carcinogen, hexavalent chromium (Cr^{+6}), observed at the Rubidoux station as part of the third Multiple Air Toxics Emissions Study (MATES III) and at monitors adjacent to the facilities. The 2009 rule amendments included the adoption of a fence-line ambient Cr^{+6} threshold of 0.70 ng/m^3 (excluding background), determined based on a 100-in-a-million fence-line cancer risk calculated in accordance with the 2003 risk assessment guidelines from the Office of Environmental Health Hazard Assessment (OEHHA). The rule amendment also required additional control measures, such as: clinker storage area protection, Cr^{+6} ambient monitoring, and wind monitoring, with contingencies (i.e., clinker enclosure based on Cr^{+6} results and PM10 monitoring in case of elevated concentrations). The Board's adoption Resolution directed staff to evaluate the need for and frequency of Cr^{+6} ambient monitoring after five (5) years of data collection, and to establish a working group to develop a Facility Closure Air Quality Plan Option (Facility Closure Plan). Cr^{+6} ambient monitoring results have been reported annually to the Stationary Source Committee beginning in 2011, and bi-annually to the Board beginning in 2012. Per Rule 1156, after 12 months of no exceedances of Cr^{+6} ambient air concentrations under the 1-in-3-day sampling schedule, CPCC and RC changed their 24-hour Cr^{+6} ambient monitoring sampling to a 1-in-6-day schedule and a 90-day average threshold calculation in April 2011.

The criteria for facility closure and conditions to potentially sunset Cr^{+6} ambient monitoring were discussed with the subsequently established working group in 2010 and 2011. A draft Facility Closure Plan was developed and presented to the Stationary Source Committee in 2012, but was left as a living document since neither facility was producing clinker at the time and there was uncertainty regarding future cement manufacturing activities given the economic recession. CPCC has shut down and no longer holds SCAQMD permits for cement manufacturing. RC processes clinker material imported from facilities outside the SCAQMD's jurisdiction and conducts blending/bagging operations for various cement products.

Proposal

The proposed amendments include requirements for current owner(s)/operator(s) of the affected property before and after cement manufacturing facility closure, as well as

conditions for potential reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. The proposal is intended to minimize potential air quality impacts and potential health risk from cement facilities during operations and after closure while streamlining Cr⁺⁶ ambient monitoring.

The proposed amendments include revisions to the Cr⁺⁶ ambient air monitoring fence-line threshold as a result of the 2015 update to the OEHHA risk assessment guidelines, and an update to background concentrations based on MATES IV data. Staff proposes to change the Cr⁺⁶ fence-line threshold from 0.70 ng/m³ to 0.20 ng/m³ (excluding background) effective September 5, 2016. This change maintains the 100-in-a-million fence-line risk threshold to reflect the updated OEHHA guidelines that account for early-life exposures to air toxics. The current, as well as the proposed amended rule do not specify the background levels, which are included in the staff report. Previously, a background level of 0.16 mg/m³ was used based on two years of MATES III sampling data for the Basin. Cr⁺⁶ background levels will be updated to 0.065 ng/m³ and 0.056 ng/m³ for a 30-day and 90-day rolling average (a 1-in-3 or 1-in-6 sampling schedule), respectively, as observed at the Fontana and Rubidoux stations as part of MATES IV. Effective September 5, 2016, the proposed new effective limits would be 0.265 ng/m³ for a 30-day average and 0.256 ng/m³ for a 90-day average. Exceeding these limits prior to September 5, 2018 will not be a violation of the rule under the proposed amendments.

The owner/operator must submit a Compliance Plan to the Executive Officer if there is an exceedance of the Cr⁺⁶ fence-line threshold after September 5, 2016. The facility may appeal the Executive Officer's decision regarding the Compliance Plan to the Hearing Board. The owner/operator also has the opportunity to demonstrate that the primary cause of the CR⁺⁶ exceedance is not attributed to their facility. If the Executive Officer determines the facility to be the primary cause, a compliance plan will be required within 60 days of notification. In addition, the Compliance Plan requirement will not apply to a facility that has been required to submit a Health Risk Assessment pursuant to Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, on or after January 1, 2015.

The proposed amendments add provisions for reducing the number of monitors. Specifically, upon 12 consecutive months of Cr⁺⁶ monitoring below 0.20 ng/m³ (excluding background), the owner/operator may request to reduce the number of monitors to one in the predominantly downwind direction. If an exceedance occurs while operating a reduced number of monitoring stations, the facility must revert back to a 1-in-3 day ambient sampling schedule. In the event of three or more exceedances in a consecutive 12-month period, the facility must submit for approval an amended Compliance Monitoring Plan to operate a minimum of three monitors.

Relative to facility closure, unless the facility has a mining reclamation plan approved by the responsible lead agency, the proposed amendments require a Compliance Plan for Post-Closure Activities. In addition, the facility is required to continue monitoring after facility closure. Currently, CPCC has in place an approved mining reclamation plan and RC does not. The owner/operator may submit a site-specific assessment using soil sampling, historic site activity, or other means, identifying areas determined not to be potentially contaminated by Cr⁺⁶ contamination. If approved by the Executive Officer, those areas determined not to be potentially contaminated may be excluded from the provisions regarding clean-up/rehabilitation of the property. After the site clean-up/stabilization and upon subsequent three months of Cr⁺⁶ monitoring below the applicable operative fence-line threshold, monitoring can be discontinued and the rule would no longer apply.

Key Issues

Staff has worked closely with both cement manufacturing facilities and other stakeholders to resolve issues associated with the proposed amended rule. CPCC has indicated that the proposed rule amendments are acceptable. RC has a number of concerns with the proposal and would rather see no post-closure requirements. Staff has made many modifications to the staff proposal in response to industry concerns; however, there are still two key issues that remain. These are described below, followed by descriptions of some areas where changes were made to the proposed rule.

Fence-line Limit

RC has concerns regarding how the threshold was developed, including the underlying technical data used by OEHHA to develop the cancer potency factor. They have expressed concern about one of many references utilized by OEHHA in their evaluation of hexavalent chromium cancer potency. SCAQMD is required to use OEHHA guidelines in assessing public health risk (Health and Safety Code Section 44360(b)(2) and AB 2588). The new fence-line limit merely reflects current OEHHA guidelines and maintains the current fence-line risk threshold of 100 in 1 million.

RC raised a concern that they could have difficulty consistently meeting the lower levels, which could result in premature closing of that operation. From the most recent site visit to Riverside Cement, staff believes that there are opportunities for RC to implement additional precautionary measures to achieve the new standard, such as more frequent application of fugitive dust suppressants and/or better control of fugitive dust from cement bagging operations.

Monitoring After Facility Closure

RC believes that monitoring after facility closure is unnecessary and that SCAQMD should rely on the regional monitoring network. However, the regional monitoring network does not monitor localized levels of air toxics. Staff is proposing to require continued monitoring at these facilities until three months after clean-up/rehabilitation

or reclamation is complete. This will help ensure public health protection from Cr⁺⁶ exposure, a known human carcinogen.

RC has also expressed concern that the proposed criteria for ceasing Cr⁺⁶ monitoring following closure (after operations have ceased and permits have been surrendered) is not appropriate. RC has suggested monitoring continue for 60 days after facility closure, regardless of the clean-up/rehabilitation or reclamation status, unless access to monitoring is not available. Staff believes that monitoring before and during clean-up/rehabilitation is essential given the potential fugitive emissions of Cr⁺⁶ contaminated soil. Staff is confident that the proposed criteria for ceasing Cr⁺⁶ ambient air monitoring post-cement facility closure is a reasonable and sound approach to minimize potential air quality impacts from the property without imposing significant burden on the owner(s)/operator(s) or duplicating other agencies' efforts relative to future redevelopment and use of the property. Staff has modified the rule language regarding facility closure and sunset of the rule provisions once reclamation and clean-up/stabilization have occurred under either a lead agency or Compliance Plan for Post-Closure Activities, while also including a requirement for a final three months of compliant monitoring data after the activities have been completed to reflect industry's comments.

Issues That Have Been Resolved

The following issues have been resolved:

Certainty in Process of Approvals

RC has expressed concern over too much Executive Officer discretion for when monitoring may cease and that there is no time frame for completing required plan(s) review for reducing the number of monitoring stations or for relocation of the monitors. To address these concerns, Staff has added provisions for plan approval/disapproval and for a plan decision appeal process. Under the proposed amendments, the Executive Officer has 60 days to approve or deny a plan. If a plan is denied, the denial can be appealed to the SCAQMD Hearing Board under Rule 216 – Appeals and Rule 221 - Plans. Similarly, if a request to move a monitor is not approved through an amendment of the Compliance Monitoring Plan, that decision can also be appealed. Language has also been added to the rule that a request to move a monitor will be approved or disapproved within 14 days of receipt.

Monitoring Collaboration

In addition, in a collaborative effort, staff also conducted co-located monitoring and analyzed split samples with RC to evaluate potential discrepancies in monitoring collection or laboratory results and/or monitoring. No notable differences were found in the lab samples as overall, the collocated samplers reproduced very well. After the September 18, 2015 Stationary Source Committee meeting, staff contacted

representatives of RC regarding further review of the data that RC presented at the meeting, specifically regarding the claim of a 24% bias in the monitoring and resultant conclusion that the fence-line threshold should be adjusted upwards accordingly. At a conference call with RC staff and their representatives from Exova Labs, the parties agreed that although a slight bias is observed in the data when comparing the side-by-side co-located monitoring results, the difference is substantially less than the 24% presented at the Stationary Source Committee meeting. In fact, the parties concluded that the differences between the two labs were probably within experimental error. It was determined from further exchanged data between Exova and SCAQMD labs that using calibration standards that were different was the main contributor to the variance.

Public Process

Staff met with representatives of CPCC and RC beginning in January 2015 to solicit comments on the proposed rule amendment concepts. Comments received were incorporated into the development of the initial proposed amendments.

A working group meeting was held on April 7, 2015 to present detailed proposed rule amendments. Draft rule language was released to the working group for their review and comments prior to the Stationary Source Committee meeting on April 17, 2015. Staff conducted a public consultation meeting on April 22, 2015 at a location near one of the cement facilities to solicit community input on the staff proposal.

A public workshop was held on June 18, 2015 to seek input on the elements added to the proposal since the public consultation meeting. The additional proposal elements included the proposed update to the Cr⁺⁶ ambient air monitoring fence-line threshold and the implementation schedule, compliance requirements in the event the Cr⁺⁶ levels are exceeded, and the criteria to validate duplicate PM10 source tests at low concentrations (significantly less than the emission limit of 0.01 grain/dscf). Following the public workshop, staff conducted a site visit to learn more about the current operational status at one facility. Staff also met with both facilities on two occasions in both May and July 2015, as well as having numerous phone calls.

In response to industry's request, the Public Hearing was rescheduled to September 2015. Throughout the rule development process, significant changes were made to the proposed rule to address industry concerns. At the September 4, 2015 Board meeting, the Board directed staff to bring this proposed amended rule back to the Stationary Source Committee before a public hearing is held. An update was provided to the Stationary Source Committee on September 18, 2015 and the revised proposal is ready for Board consideration.

California Environmental Quality Act

SCAQMD staff has reviewed the proposed project pursuant to California Environmental Quality Act (CEQA) Guidelines §15002 (k) – General Concepts, the three-step process

for deciding which document to prepare for a project subject to CEQA. SCAQMD staff has determined that the proposed amendments to Rule 1156 are a discretionary action by a public agency, which has potential for resulting in direct or indirect changes to the environment and, therefore, is considered a “project” as defined by CEQA. SCAQMD staff’s review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. Therefore, pursuant to CEQA Guidelines §15252 and 15126.6(f), no alternatives are proposed to avoid or reduce any significant effects because there are no significant adverse impacts, and pursuant to CEQA Guidelines §15126.4(a)(3), mitigation measures are not required for effects not found to be significant. SCAQMD staff prepared a Draft Environmental Assessment (EA) to address the potential adverse environmental impacts associated with the proposed project, which was released for a 30-day public review beginning on July 21 and ending on August 19, 2015. No comment letters on the Draft EA were received during the public comment period. Minor modifications were made to the proposed amended rule subsequent to release of the Draft EA for public review. SCAQMD staff has reviewed these minor rule modifications and concluded that they do not cause any CEQA impacts to be substantially worse or change any conclusions reached in the Draft EA. By analyzing the more stringent requirements of the previous version of the proposed amended rule, the Draft EA evaluated a “worst-case” scenario. Therefore, any potential adverse impacts from the currently proposed project are expected to be less than the potential adverse impacts evaluated in the Draft EA. As a result, these minor revisions do not require recirculation of the CEQA document pursuant to CEQA Guidelines §15088.5.

Socioeconomic Analysis

The socioeconomic assessment was released with and is contained within the staff report as a part of the 30-day availability of documents (August 5 and October 6, 2015 for the draft and revised draft assessments, respectively). No comments were received on the assessment, summarized below.

Monitoring levels showing less than 0.20 ng/m³ for 12 months post adoption would allow the facility to reduce the number of ambient monitors to one in the principally downwind area. The ability to reduce the number of monitoring stations after meeting all criteria would potentially result in cost savings estimated at \$112,500 per year for one facility and \$30,500 per year for the other. However, if applicable thresholds are exceeded, some or all of these cost-saving would no longer occur since the owner/operator would be required to revert back to a 1-in-3 day sampling frequency. If the exceedances occur three or more times in any consecutive 12 calendar months, the owner/operator is also required to submit for approval an amended Compliance Monitoring Plan to operate a minimum of three monitoring stations. The fees would be approximately \$1,925, which includes filing and plan evaluation fees. The Executive Officer’s decision can be appealed to the Hearing Board which has a minimum filing fee of \$1,741.

It is possible that one of the facilities may need to submit a Compliance Plan, increase housekeeping measures, implement additional dust stabilization, and worst case, install additional controls on packing operations (i.e. installation of plastic shrouding), retrofitting of existing enclosures (i.e., barrier wall(s)) to ensure that fugitive emissions are not escaping. As previously noted, a Compliance Plan would not be necessary if the facility had previously approved or is currently required to submit a Health Risk Assessment pursuant to Rule 1402. Depending on the risks estimated in the Health Risk Assessment, the facility may need to develop and implement a Risk Reduction Plan. The actions taken are likely similar under a Compliance Plan or a Risk Reduction Plan.

Under a Compliance Plan or Risk Reduction Plan, the potential cost of purchasing additional chemical stabilizers would be approximately \$243,000 annually based on the two additional applications per year to approximately 50 acres, cumulatively, of facility property. In addition, the construction of one additional steel partitioning wall within an existing building near a cement packaging operation may be necessary to contain dust within the building, as well as four PVC curtain doors to prevent dust from exiting the building. The capital cost of the partition and PVC curtains would approximately be \$172,000 and \$14,700, respectively. (Note: the partition is a worst case assumption as the facility may be able to meet the lower fence-line limit through less costly compliance options, such as additional housekeeping measures.)

Relative to the minor amendments regarding duplicate source tests, there is a potential cost savings in that unnecessary duplicate source testing will be avoided in the future while accomplishing the same goal as the current requirement.

When the annual compliance cost is less than one million dollars, the Regional Economic Impact Model (REMI) is not used to analyze impacts on jobs and other socioeconomic impacts because the impact results would be very small and would fall within the noise of the model.

Implementation and Resource Impact

Existing SCAQMD resources will be sufficient to implement the proposed amendments.

Attachments

- A. Summary of Proposed Amendments
- B. Rule Development Process
- C. Key Contacts
- D. Resolution
- E. Rule Language
- F. Staff Report
- G. Final Environmental Assessment

ATTACHMENT A

Summary of Proposed Amendments to Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

The following summarizes the key proposed amendments to Rule 1156:

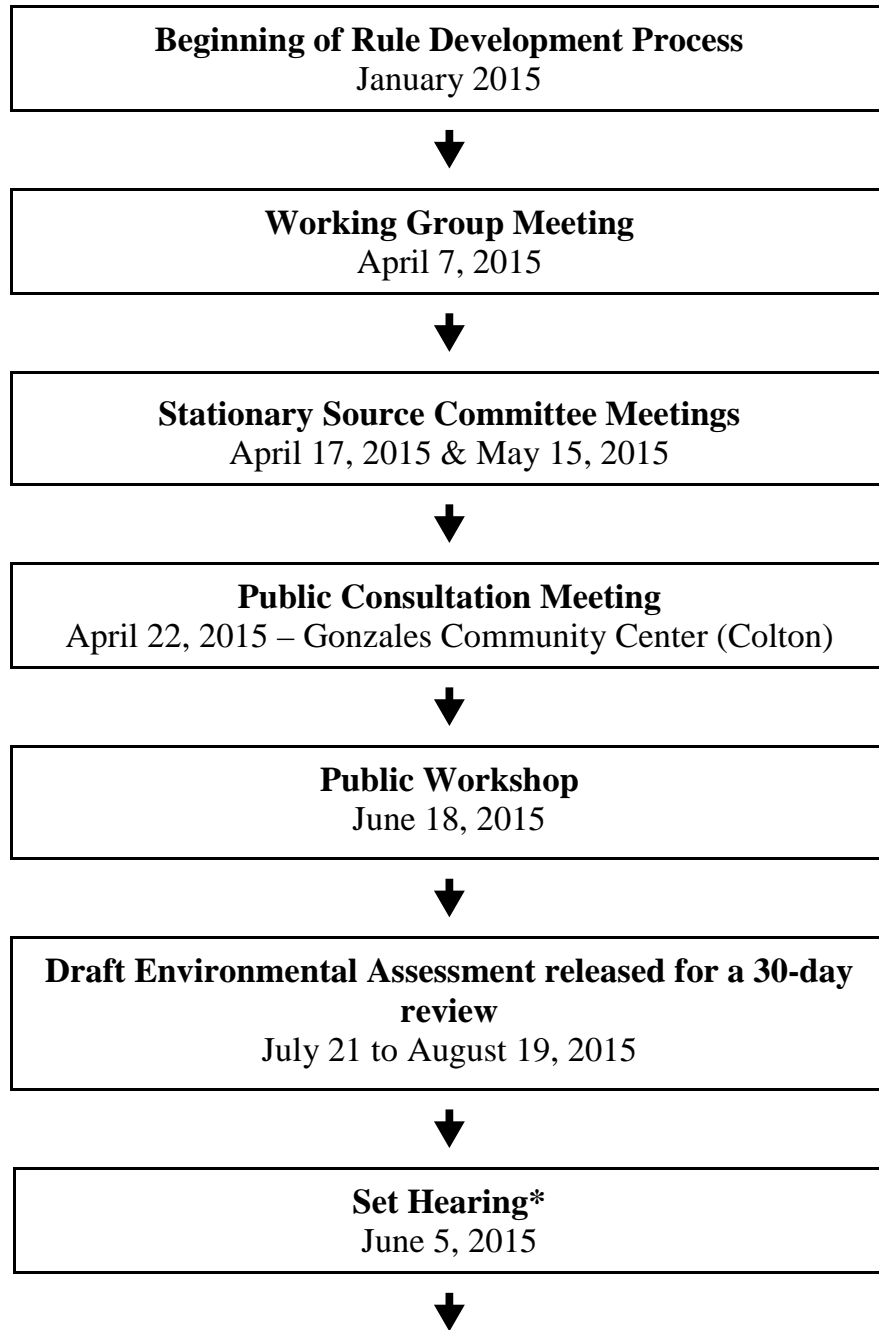
- Rule purpose and applicability are updated to clarify applicability of the rule after facility closure;
- New definitions added relative to “Facility Closure” outlining specific criteria and for “Primary Cause” to clarify the most significant contributor to a Cr⁺⁶ exceedance at a monitor:
- Condition for reducing Cr⁺⁶ ambient monitoring stations at existing cement facilities:
 - Can reduce to one monitoring station after 12 consecutive months of less than 0.20 ng/m³ Cr⁺⁶, excluding background;
 - If there is an exceedance, the owner/operator shall revert back to a 1 in 3 day ambient monitoring schedule within 14 calendar days; and if the applicable thresholds are exceeded three or more times in any 12 consecutive months, an amended Compliance Monitoring Plan shall be submitted to revert back to operating a minimum of three monitoring stations consistent with the original monitoring requirements;
- Effective September 5, 2016, ambient Cr⁺⁶ concentrations from a 30-day or 90-day rolling average at each monitoring station shall not exceed 0.20 ng/m³ (excluding background). Prior to this date, the previous threshold of 0.70 ng/m³ remains in effect;
- An exceedance of the 0.2 limit after September 5, 2016, but prior to September 5, 2018 is not considered a violation of the rule; however, an exceedance after September 5, 2018 would be considered a violation;
- Within 14 calendar days of any Cr⁺⁶ exceedance (0.70 ng/m³ and/or 0.20 ng/m³, excluding background), information can be submitted to demonstrate that the primary cause of such exceedance is not attributed to the facility. Written determination shall be made within 30 calendar days of receiving the information. Within 60 calendar days from receiving notification that the facility is the source of an exceedance, a Compliance Plan must be submitted for approval in addition to the fees. Failure to obtain an approved Compliance Plan is a violation of Rule 1156.
- The Compliance Plan requirement will not apply to an owner/operator that has been required to submit a Health Risk Assessment under Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, on or after January 1, 2015.
- Requirements after facility closure:

- Continued Cr⁺⁶ monitoring in compliance with the applicable thresholds and Compliance Plan;
- Provision for Compliance Plan for Post Closure Activities, if a facility does not have a current reclamation plan approved by a lead agency:
 - (1) A submission of the plan within 90 calendar days of facility closure.
 - (2) The plan shall include specific information as outlined in the rule.
 - (3) All activities must be temporarily suspended in the event of any Cr⁺⁶ ambient threshold exceedance until the control measures in the approved Compliance Plan for Post Closure Activities are implemented.
- The facility closure provisions no longer apply if both the following occur:
 - (1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property in accordance with an approved Compliance Plan for Post Closure Activities; and
 - (2) Subsequent three months of demonstrated compliance with the applicable Cr⁺⁶ ambient monitoring thresholds after completion of (1) above.
- Provisions have been added to specify the amount of time to review plans or requests to move ambient monitors or the number of monitors, and to clarify that such decisions by the Executive Officer can be appealed to the Hearing Board.

ATTACHMENT B

Rule Development Process

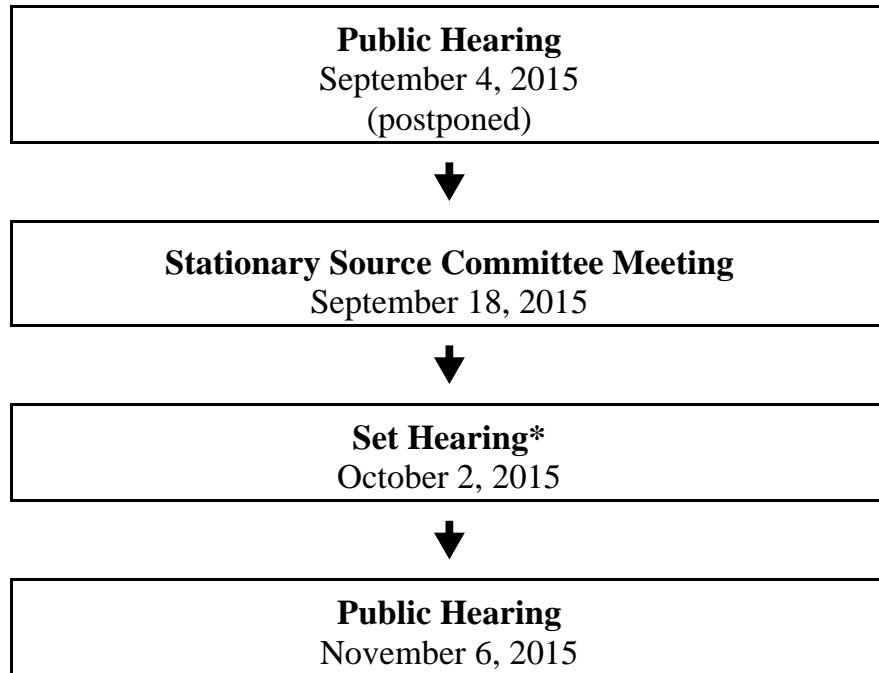
Proposed Amended Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities



ATTACHMENT B (Cont.)

Rule Development Process

**Proposed Amended Rule 1156 - Further Reductions of Particulate Emissions from
Cement Manufacturing Facilities**



* The Draft and Revised Draft Staff Reports released in conjunction with the Set Hearings (30-day documents) contain the socioeconomic assessment.

Ten (10) months spent in rule development.

ATTACHMENT C

Key Contacts

Proposed Amended Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

California Portland Cement Company

Riverside Cement Company

Coleman Law

E4 Strategic Solutions

Department of Toxic Substances Control

Santa Ana Regional Water Quality Control Board

ATTACHMENT D
RESOLUTION NO. 15-_____

A Resolution of the South Coast Air Quality Management District (SCAQMD) Governing Board amending Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities.

A Resolution of the SCAQMD Governing Board certifying the Final Environmental Assessment for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities.

WHEREAS, the SCAQMD Governing Board finds and determines that the proposed amendments to Rule 1156 are considered a "project" pursuant to the California Environmental Quality Act (CEQA); and that the proposed project would not have a significant adverse effect on the environment; and

WHEREAS, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code §21080.5 and has conducted CEQA review and analysis pursuant to such program (SCAQMD Rule 110); and

WHEREAS, SCAQMD staff has prepared a Draft Environmental Assessment (EA) pursuant to its certified regulatory program and pursuant to CEQA Guidelines §15252, setting forth the potential environmental consequences of Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities; and

WHEREAS, the Draft EA was circulated for 30-day public review and comment period from July 21, 2015 to August 19, 2015; and

WHEREAS, no comment letters were received during the comment period relative to the analysis presented in the Draft EA and the Draft EA has been revised such that it is now a Final EA; and

WHEREAS, it is necessary that the adequacy of the Final EA be determined by the SCAQMD Governing Board prior to its certification; and

WHEREAS, a Mitigation Monitoring Plan pursuant to Public Resources Code §21081.6 has not been prepared since no mitigation measures are necessary; and

WHEREAS, the SCAQMD Governing Board voting on Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities has reviewed and considered the Final EA prior to its certification; and

WHEREAS, hexavalent chromium (Cr⁺⁶) has been identified as a toxic air contaminant by the Office of Health Hazard Assessment (OEHHA); and

WHEREAS, California Health and Safety Code §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 a need exists to amend Rule 1156, to revise the Cr⁺⁶ fence-line ambient monitoring threshold to reflect updated risk assessment procedures by the California Office of Health Hazard Assessment; to require continued Cr⁺⁶ monitoring after facility closure before and during site clean-up or reclamation activities; and to set conditions for reducing the number of Cr⁺⁶ monitoring stations and to sunset monitoring upon meeting specified criteria. Additional amendments are also proposed to improve rule clarity and effectiveness; and

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from California Health and Safety Code §§ 39002, 39650 et seq., 40000, 40001, 40702, 40725 through 40728, 41508, and 41700; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 is in harmony with, and not in conflict with or contradictory to, existing federal or state statutes, court decisions, or state or federal regulations; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 does not impose the same requirements as any existing state or federal regulations and the proposed amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 references the following statutes which the SCAQMD hereby implements, interprets or makes specific: Health and Safety Code §§40001(b) (rules to prevent and abate air pollution episodes), 40702 (rules to execute duties as required by law) and 41700 (nuisance); and

WHEREAS, Health and Safety Code §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 1156 is included in the staff report; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment of Proposed Amended Rule 1156 is consistent with the March 17, 1989 and October 14, 1994 Governing Board Socioeconomic Resolutions for rule adoption; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156 may reduce monitoring costs for both facilities and may potentially result in increased costs to one cement manufacturing facility, yet are considered to be reasonable, with the total compliance costs and potential cost-savings accruable to all affected facilities as specified in the Socioeconomic Impact Assessment; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment is consistent with the provisions of the California Health and Safety Code §§40440.8 and 40728.5; and

WHEREAS, Proposed Amended Rule 1156 is not a control measure in the 2012 Air Quality Management Plan (AQMP) and thus, was not ranked by cost-effectiveness relative to other AQMP control measures in the 2012 AQMP, and furthermore, pursuant to Health and Safety Code §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, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code §40725; and

WHEREAS, the SCAQMD Governing Board has held a public hearing in accordance with all provisions of law; and

WHEREAS, the SCAQMD Governing Board specifies the manager of Proposed Amended Rule 1156 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed amendments are based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

WHEREAS, the SCAQMD Governing Board finds and determines, taking into consideration the factors in section (d)(4)(D) of the Governing Board Procedures [codified as Section 30.5(4)(D) of the Administrative Code], that the modifications made to Proposed Amended Rule 1156 since the Draft EA was circulated for public review and comment and 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 §40726 and would not constitute significant new information requiring recirculation of the Draft EA pursuant to CEQA Guidelines § 15088.5; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1156, should be adopted for the reasons contained in the Final Staff Report; and

WHEREAS, the proposed amendments to Rule 1156 will not be submitted for inclusion into the State Implementation Plan.

NOW, THEREFORE, BE IT RESOLVED, that the SCAQMD Governing Board does hereby certify that the Final EA for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities was

completed in compliance with CEQA and Rule 110 provisions; and that the Final EA was presented to the SCAQMD Governing Board, whose members reviewed, considered and approved the information therein prior to acting on Proposed Amended Rule 1156; and

BE IT FURTHER RESOLVED, that because no significant adverse environmental impacts were identified as a result of implementing Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities, a Statement of Findings, a Statement of Overriding Considerations, and a Mitigation Monitoring Plan are not required; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities, as set forth in the attached and incorporated herein by reference.

DATE: _____

CLERK OF THE BOARDS

ATTACHMENT E

(Adopted November 4, 2005)(Amended March 6, 2009)

(Proposed Amended November 6, 2015)

PROPOSED AMENDED RULE 1156. FURTHER REDUCTIONS OF PARTICULATE EMISSIONS FROM CEMENT MANUFACTURING FACILITIES

(a) Purpose

The purpose of this rule is to further reduce particulate matter (PM) emissions and minimize hexavalent chromium emissions from cement manufacturing facilities operations and the property, including after facility closure.

(b) Applicability

This rule applies to all operations, materials handling, and transport at a cement manufacturing facility, including, but not limited to, kiln and clinker cooler, material storage, crushing, drying, screening, milling, conveying, bulk loading and unloading systems, internal roadways, material transport, and track-out. After facility closure, this rule also applies to the owner/operator of the property on which a cement manufacturing facility has operated on or after November 4, 2005.

(c) Definitions

- (1) BAG LEAK DETECTION SYSTEM (BLDS) means a system that meets the minimum requirements specified under U.S. EPA 40 CFR Part 63, Subpart LLL, Section 1350 (m) to continuously monitor bag leakage and failure.
- (2) CEMENT MANUFACTURING FACILITY means any facility that engages in, ~~or~~ has been engaged in prior to November 4, 2005, the operation of producing portland cement or associated products, as defined in the Standard Industrial Classification Manual as Industry No. 3241, Portland Cement Manufacturing.
- (3) CHEMICAL DUST SUPPRESSANT means any non-toxic chemical stabilizer which is used as a treatment material to reduce fugitive dust emissions and its use is not prohibited by any other applicable law and meets all applicable specifications required by any federal, state, or local water agency.
- (4) CLINKER means a product from the kiln which is used as a feedstock to make cement.
- (5) CLINKER COOLER means equipment into which clinker product leaving the kiln is placed to be cooled by air supplied by a forced draft or natural draft supply system.

- (6) CONVEYING SYSTEM means a device for transporting materials from one piece of equipment or location to another piece of equipment or location within a facility. Conveying systems include, but are not limited to, the following: feeders, belt conveyors, bucket elevators and pneumatic systems.
- (7) CONTINUOUS OPACITY MONITORING SYSTEM (COMS) means a system that meets minimum requirements specified under U.S. EPA 40 CFR Part 60, Appendix B, to continuously monitor opacity.
- (8) CONVEYING SYSTEM TRANSFER POINT means a point where any material including, but not limited to, feed material, fuel, clinker or product, is transferred to or from a conveying system, or between separate parts of a conveying system.
- (9) COVERED CONVEYOR is a conveyor where the top and side portion of the conveyor are covered by a removable cover to allow routine inspection and maintenance.
- (10) DUST SUPPRESSANTS are water, hygroscopic materials, or chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (11) ENCLOSED CONVEYOR is any conveyor where the top, side and bottom portion of the conveyor system is enclosed except for points of loading and discharge and except for a removable cover to allow routine inspection and maintenance.
- (12) ENCLOSED SCREENING EQUIPMENT means screening equipment where the top portion of the equipment is enclosed, except for the area where the materials are loaded to the screening equipment.
- (13) ENCLOSED STORAGE PILE means any storage pile that is completely enclosed in a building or structure consisting of a solid roof and walls.
- (14) END OF WORK DAY means the end of a working period that may include one or more work shifts, but no later than 8 p.m.
- (15) EXISTING EQUIPMENT means any equipment, process or operation having an existing valid ~~AQMD~~ SCAQMD permit that was issued prior to November 4, 2005.
- (16) FACILITY means any source or group of sources or other air contaminant-emitting activities which are subject to this rule and are located on one or more contiguous properties within the ~~AQMD~~ SCAQMD, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in 40 CFR Section 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in crude oil and gas production in Southern California Coastal or OCS Waters and transport of such

crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

- (17) FACILITY CLOSURE occurs when all cement manufacturing operations at the facility have completely ceased and all permits associated with on-site cement manufacturing operations, such as blending silos, kilns, clinker cooler, and clinker grinding/milling, are surrendered or have expired and are no longer reinstatable.
- (1718) FINISH MILL means a roll crusher, ball and tube mill or other size reduction equipment used to grind clinker to a fine powder. Gypsum and other materials may be added to and blended with clinker in a finish mill. The finish mill also includes the air separator associated with the finish mill.
- (1819) HAUL TRUCK means a diesel heavy-duty truck that has a loading capacity equal to or greater than 50 tons.
- (1920) INACTIVE CLINKER PILE is a pile of clinker material that has not been disturbed, removed, and/or added to as a result of loading, unloading, and/or transferring activities for 30 (thirty) consecutive days.
- (2021) KILN means a device, including any associated preheater or precalciner devices that produce clinker by heating limestone and other materials for subsequent production of portland cement.
- (2122) OPEN STORAGE PILE is any accumulation of materials which attains a height of three (3) feet or more or a total surface area of one hundred fifty (150) square feet or more. The open pile is defined as inactive when loading and unloading has not occurred in the previous 30 consecutive days.
- (2223) OWNER/OPERATOR means the owner and/or operator of the cement manufacturing facility subject to this rule unless otherwise specified or, upon facility closure, the owner and/or operator of the property where a cement manufacturing facility operated on or after November 4, 2005.
- (2324) PAVED ROAD means a road improved by covering with concrete, asphaltic concrete, recycled asphalt, or asphalt.
- (25) PRIMARY CAUSE means the most significant contributor to a hexavalent chromium exceedance at a monitor.
- (2426) RAW MILL means a ball, tube, or vertical roller mill or other size reduction equipment used to grind materials to the appropriate size. Moisture may be added or removed from the materials during the grinding operation. A raw mill may also include a raw material dryer and/or air separator.
- (2527) ROAD means any route with evidence of repeated prior travel by vehicles.

- ~~(2628)~~ **STABILIZED SURFACE** means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting, is resistant to being the source of wind-driven fugitive dust, and is demonstrated to be stabilized by the applicable test methods contained in the Rule 403 Implementation Handbook.
- ~~(2729)~~ **STREET SWEEPER** is a PM₁₀ efficient street sweeper approved pursuant to Rule 1186 – PM₁₀ Emissions from Paved and Unpaved Roads & Livestock Operations.
- ~~(2830)~~ **TOP PROCESS PARTICULATE EMITTERS** means:
- (A) process equipment, including but not limited to the kiln, clinker cooler, raw mill, and finish mill, vented to air pollution control equipment, except open-top baghouses, that account for 60% of the total process particulate emissions at the facility, for the requirement of using BLDS or COMS under paragraph (e)(2); or
 - (B) process equipment, including but not limited to the kiln, clinker cooler, raw mill, and finish mill, vented to air pollution control equipment, that account for 80% of the total process particulate emissions at the facility for the monitoring, source testing and recordkeeping requirements under paragraph (e)(3), (e)(8) and subparagraph (f)(2)(D).
- ~~(2931)~~ **TRACK-OUT** means any material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that has been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
- ~~(3032)~~ **VERIFIED FILTRATION PRODUCT** means filtration products that are verified under the U.S. EPA Environmental Technology Verification program (ETV).
- ~~(3133)~~ **WET SUPPRESSION SYSTEM** means a system that supplies ultra-fine droplets of water or chemical dust suppressant by atomization through means of using compressed air or applying high pressure as specified by manufacturers to minimize dust.
- ~~(3234)~~ **WIND-DRIVEN FUGITIVE DUST** means particulate matter emissions from any disturbed surface area which is generated by wind action alone.
- ~~(3335)~~ **WIND FENCE** means a system consisting of a stand alone structure supporting a wind fence fabric. The wind fence fabric shall have maximum porosity of 20%.
- (d) Requirements
- The owner/operator of a cement manufacturing facility shall comply with the following requirements unless otherwise stated.

- (1) Visible Emissions
 - (A) The operator of a facility shall not cause or allow the discharge into the atmosphere of visible emissions exceeding 10 percent opacity based on an average of 12 consecutive readings from any operation at the facility, except open piles, roadways and unpaved areas, using EPA Opacity Test Method 9.
 - (B) For open piles, roadways and other unpaved areas, the owner/operator of a facility shall not cause or allow the discharge into the atmosphere of visible emissions exceeding 20 percent opacity based on an average of 12 consecutive readings; or 50 percent opacity based on 5 individual consecutive readings using SCAQMD Opacity Test Method 9B.
 - (C) The owner/operator of a facility shall not cause or allow any visible dust plume from exceeding 100 feet in any direction from any operations at the facility.
- (2) Loading, Unloading, and Transferring
 - (A) The owner/operator shall conduct material loading and unloading to and from trucks, railcars, or other modes of material transportation through an enclosed system that is vented to SCAQMD permitted air pollution control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A) and is operated during loading and unloading activities. In the event the system consists of a building, the enclosed building shall have openings with overlapping flaps, sliding doors or other equally effective devices, as approved by the Executive Officer to meet the requirement in subparagraph (d)(1)(A), which shall remain closed, except to allow trucks and railcars to enter and leave.
 - (B) The owner/operator shall cover or enclose all conveying systems and enclose all transfer points. During all conveying activities, the enclosed transfer points and enclosed conveying systems shall be vented to a permitted air pollution control device that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6) and is operated during all conveying activities. The enclosure shall have access doors to allow routine inspection and maintenance.
 - (C) The owner/operator shall apply dust suppressants as necessary during material loading, unloading, and transferring activities, and at conveying system transfer points to dampen and stabilize the materials transported and prevent visible dust emissions generated to meet the requirement in subparagraph (d)(1)(A).

- (D) The owner/operator shall install and maintain as necessary dust curtains, shrouds, belt scrapers, and gaskets along the belt conveying system to contain dust, prevent spillage and carryback in order to minimize visible emissions.
 - (E) The owner/operator shall use appropriate equipment including, but not limited to, stackers or chutes, as necessary, to minimize the height from which materials fall into storage bins, silos, hoppers or open stock piles and reduce the amount of dust generated to meet the requirements in paragraphs (d)(1) and (d)(6).
- (3) Crushing, Screening, Milling, Grinding, Blending, Drying, Heating, Mixing, Sacking, Palletizing, Packaging, and Other Related Operations
- (A) The owner/operator shall enclose crushing, screening, milling, grinding, blending, drying, heating, mixing, sacking, palletizing, packaging and other related operations. The enclosed system shall be vented to permitted control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A). The control equipment shall be operated during these operations.
 - (B) In lieu of the configuration described in subparagraph (d)(3)(A), the owner/operator of a primary crusher installed and operated prior to November 4, 2005 may use wind fences on at least two sides of the primary crusher with one side facing the prevailing winds. The structure shall be equipped and operated with a wet suppression system. To implement this, the owner/operator shall submit a permit modification application by May 4, 2006 for a primary crusher to enable the Executive Officer to develop permit conditions to ensure that this air pollution control system is designed and operated to minimize particulate emissions.
 - (C) The owner/operator shall apply dust suppressants, as necessary, during all operations to dampen and stabilize the materials processed and prevent visible emissions generated to meet the requirements in subparagraph (d)(1)(A).
- (4) Kilns and Clinker Coolers
- The owner/operator shall not operate the kilns and clinker coolers unless the kilns and clinker coolers are vented to air pollution control equipment that meets the requirements in paragraph (d)(6) and subparagraph (d)(1)(A).

- (5) Material Storage
- (A) An owner/operator that stores raw materials and products in a silo, bin or hopper shall vent the silo, bin or hopper to an air pollution control device that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6).
- (B) No later than September 8, 2009, the owner/operator shall conduct all clinker material storage and handling in an enclosed storage area that meets the requirements in subparagraph (d)(1)(A) and paragraph (d)(6). The enclosed storage area shall have opening(s) covered with overlapping flaps, and sliding door(s) or other equivalent device(s) approved by the Executive Officer, which shall remain closed at all times, except to allow vehicles to enter or exit. Prior to the completion and operation of the enclosure, all clinker materials shall be stored and handled in the same manner as non-clinker materials as set forth in subparagraph (d)(5)(D).
- (C) If clinker material storage and handling activities occur more than 1,000 feet from, and inside, the facility property-line, the owner/operator may comply with all of the following in lieu of the requirements of subparagraph (d)(5)(B) no later than September 8, 2009:
- (i) Utilize a three-sided barrier with roof, provided the open side is covered with a wind fence material of a maximum 20% porosity, allowing a removable opening for vehicle access. The removable wind fence for vehicle access may be removed only during minor or routine maintenance activities, the creation or reclamation of outside storage piles, the importation of clinker from outside the facility, and reclamation of plant clean-up materials. The removable opening shall be less than 50% of the total surface area of the wind fence and the amount of time shall be minimized to the extent feasible;
- (ii) Storage and handling of material that is immediately adjacent to the three-sided barrier due to space limitations inside the structure shall be contained within an area next to the structure with a wind fence on at least two sides, with at least a 5 foot freeboard above the top of the storage pile to provide wind sheltering, and shall be completely covered with an impervious tarp, revealing only the active disturbed portion during material loading and unloading activities;
- (iii) Storage and handling of other active clinker material shall be conducted within an area surrounded on three sides by a barrier or

- wind fences with one side of the wind fence facing the prevailing wind and at least a 5-foot freeboard above the top of the storage pile to provide wind sheltering. The clinker shall remain completely covered at all times with an impervious tarp, revealing only the active disturbed portion during material loading and unloading activities. The barrier or wind fence shall extend at least 20 feet beyond the active portion of the material at all times; and
- (iv) Inactive clinker material may be alternatively stored using a continuous and impervious tarp, covered at all times, provided records are kept demonstrating the inactive status of such stored material.
- (D) For active open non-clinker material storage and handling, the owner/operator shall comply with one of the following to meet the requirements of subparagraphs (d)(1)(B) and (d)(1)(C):
- (i) Apply chemical dust suppressants to stabilize the entire surface area of the pile, except for areas of the pile that are actively disturbed during loading and unloading activities; or
 - (ii) Install and maintain a three-sided barrier or wind fences with one side facing the prevailing winds and with at least two feet of visible freeboard from the top of the storage pile to provide wind sheltering, maintain surface stabilization of the entire pile in a manner that meets the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C), and store the materials completely inside the three-sided structure at all times; or
 - (iii) Install and maintain a three-sided barrier with roof, or wind fences with roof, to provide wind sheltering; maintain the open-side of the storage pile stabilized in a manner that meets the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C), and store the materials completely inside the three-sided structure at all times; or
 - (iv) Install and maintain a tarp over the entire surface area of the storage pile, in a manner that meets the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C), except for areas of the pile that are actively disturbed during loading and unloading activities. The tarp shall remain in place and provide cover at all times.
- (E) All inactive non-clinker piles shall be stored and handled in the same manner as non-clinker materials, as set forth in subparagraph (d)(5)(D). The

owner/operator shall keep records demonstrating the inactive status of the non-clinker piles.

- (F) For open storage piles subject to subparagraph (d)(5)(D), the owner/operator shall apply chemical dust suppressants or dust suppressants during any material loading and unloading to/from the open piles; and re-apply chemical dust suppressants or dust suppressants to stabilize the disturbed surface areas of the open piles at the end of each work day in which loading and unloading activities were performed to meet the performance standards of subparagraphs (d)(1)(B) and (d)(1)(C) .

(6) Air Pollution Control Device

- (A) The owner/operator shall install and maintain an air pollution control system referred to in paragraphs (d)(2), (d)(3), (d)(4) and (d)(5) to meet the following performance standards measured with the approved source test in subdivision (g):
- (i) an outlet concentration of 0.01 grain PM per dry standard cubic feet for equipment installed prior to November 4, 2005; and
 - (ii) a BACT outlet concentration not to exceed 0.005 grain PM per dry standard cubic feet for equipment installed on and after November 4, 2005.
- (B) The owner/operator shall install and maintain a baghouse ventilation and hood system that meets a minimum capture velocity requirement specified in the applicable standards of the U.S. Industrial Ventilation Handbook, American Conference of Governmental Industrial Hygienists, at the time of installation. If modification to the baghouse ventilation and hood system is required to meet the applicable standard, the owner/operator shall be granted additional time up to December 31, 2006 to complete this process.
- (C) The owner/operator shall meet the requirements in paragraph (d)(6) by December 31, 2006 for pulse-jet baghouses, and by December 31, 2010 for non-pulse-jet baghouses.
- (D) To show incremental progress towards the December 31, 2010 compliance date for non-pulse-jet baghouses, the owner/operator shall submit to the Executive Officer a list of baghouse candidates for future modification or replacement by December 31, 2006. In addition, the owner/operator shall submit a notification letter by December 31 of each year thereafter, starting in 2006, to demonstrate that the owner/operator has completed at least 20%

of the modification or replacement by 2006; 40% by 2007; 60% by 2008, 80% by 2009; and 100% by 2010.

- (7) Internal Roadways and Areas
- (A) Unpaved Roadways and Areas
- (i) For haul roads used by haul trucks to carry materials from the quarry to different locations within the facility, the owner/operator shall apply chemical dust suppressants in sufficient quantity and at least twice a year to stabilize the entire unpaved haul road surface; post signs at the two ends stating that haul trucks shall use these roads unless traveling to the maintenance areas; and enforce the speed limit of 35 miles per hour or less to comply with the opacity limits in paragraph (d)(1).
- (ii) For other unpaved roadways and areas, the owner/operator shall apply chemical dust suppressants in sufficient quantity and at least twice a year to stabilize the surface, or apply gravel pad containing 1-inch or larger washed gravel to a depth of six inches; and enforce a speed limit of 15 miles per hour or less to comply with the opacity limits in paragraph (d)(1).
- (B) Paved Roads
- The owner/operator shall sweep all internal paved roads at least once each regular work day or more frequently if necessary to comply with the opacity limits in paragraph (d)(1). Sweeping frequency may be reduced on weekends, holidays, or days of measurable precipitation provided that the owner/operator complies with the opacity limits in paragraph (d)(1) at all times. Sweepers purchased or leased after November 4, 2005 shall be Rule 1186-certified sweepers.
- (8) Track-Out
- (A) The owner/operator shall pave the closest 0.25 miles of internal roads leading to the public roadways and ensure that all trucks use these roads exclusively when leaving the facility to prevent track-out of dust to the public roadways and to comply with the opacity limits in paragraph (d)(1).
- (B) If necessary to comply with the opacity limits in paragraph (d)(1), the owner/operator shall install a rumble grate, truck washer, or wheel washer; and ensure that all trucks go through the rumble grate, truck washer or wheel washer such that the entire circumference of each wheel or truck is cleaned before leaving the facility.

- (C) To prevent material spillage from trucks to public roadways and fugitive dust emissions during transport, a truck driver on the facility shall ensure that the cement truck hatches are closed and there is no track-out, and the owner/operator shall provide truck cleaning facilities on-site.
 - (D) The owner/operator shall provide, at least once each calendar year, the “Fugitive Dust Advisory” flyers prepared by the District to any company doing business with the facility and which is subject to the requirements in subparagraph (d)(8)(C).
- (9) No Backsliding
- To prevent any backsliding from the current level of control, the owner/operator shall operate and maintain all existing equipment according to permit conditions stated in the permits approved by the Executive Officer prior to November 4, 2005 at all times.
- (10) Compliance Monitoring Plan
- (A) No later than June 8, 2009, the owner/operator shall submit to the Executive Officer a complete ~~compliance plan~~ Compliance Monitoring Plan for wind monitoring and the monitoring, sampling, and analysis of hexavalent chromium, and pay a plan evaluation fee pursuant to Rule 306 – Plan Fees. The submitted plan will be disapproved by the Executive Officer if it does not meet the provisions of subparagraph (d)(10)(B). The owner/operator shall resubmit an approvable plan within 30 days from date of disapproval; otherwise, the owner/operator shall be deemed in violation of this provision.
 - (B) ~~The monitoring plan~~ The Compliance Monitoring Plan submitted shall contain, at a minimum, the following:
 - (i) Siting and monitoring protocols that comply with EPA’s and CARB’s guidance and/or protocols for measurement of hexavalent chromium, wind direction, and wind speed. A minimum of three fence-line monitoring stations for the entire property are required for hexavalent chromium: one upwind and one downwind of the facility under the common prevailing wind directions, and one subject to approval by the Executive Officer to ensure maximum effectiveness of the monitoring to the most potentially affected receptor, such as nearest residential or business receptors relative to clinker storage areas or potential hexavalent chromium emitting sources.

- (ii) Breakdown provisions which include: (1) a statement that the owner/operator will notify the Executive Officer in writing of the breakdown within 24 hours of its occurrence. If the breakdown occurs on a Friday, over a weekend, or on a national or state holiday observed by the facility, the facility shall report such breakdown on the following work day; (2) a repair schedule; and (3) an action plan with detailed measures to be taken by the owner/operator to ensure that there will be at least 70% data capture at each site by each monitoring system;
 - (iii) Consent from the owner/operator that allows the Executive Officer to conduct any co-located or audit sampling at any time;
 - (iv) Sampling analysis protocols that comply with EPA and CARB's appropriate guidance and/or protocols for hexavalent chromium. All samples shall be analyzed at a District-approved laboratory, which can be audited at any time; and
 - (v) Any other relevant data and information required by the Executive Officer.
- (C) The Executive Officer shall approve or disapprove the complete plan within 60 days from the submittal date.
- (D) The owner/operator may ~~file for submit~~ a ~~compliance monitoring plan~~ Compliance Monitoring Plan amendment ~~into~~ the ~~future~~ Executive Officer relative to monitor siting or other elements of the plan as more site-specific data becomes available. The Executive Officer shall approve or disapprove the amended plan within 60 calendar days from receipt. The Executive Officer's decision is appealable to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans.
- (11) Hexavalent ~~Chrome~~ Chromium Monitoring and Other Requirements
- (A) No later than six months from ~~compliance plan~~ Compliance Monitoring Plan approval or March 1, 2010, whichever occurs first, the owner/operator of a cement manufacturing facility shall conduct hexavalent chromium ambient air monitoring as follows:
- (Ai) The owner/operator shall conduct ambient air monitoring for hexavalent chromium in accordance with the approved monitoring plan set forth in subparagraph (d)(10)(B) or (d)(10)(D), as applicable. The hexavalent chromium concentration from a 30-day rolling average at each monitoring station shall not exceed ~~0.70~~

~~nanograms per cubic meter (ng/m³), excluding background.~~ the applicable limit in Table 1, except as provided in subparagraph (d)(11)(C) and subparagraph (d)(11)(D). 24-hour sampling shall be conducted once every third day according to the EPA 1-in-3-day sampling calendar. For monitoring sample retrieval in which collection occurs on a weekend or facility observed national or state holiday, the sample may be collected the following business day.

Table 1

Ambient Hexavalent Chromium Concentration Threshold Limit

<u>Threshold Limit (ng/m³) Excluding Background</u>	<u>Effective Date</u>
<u>0.70</u>	<u>March 1, 2010</u>
<u>0.20</u>	<u>September 5, 2016*</u>

* Pursuant to subparagraph (d)(11)(D), an exceedance of the 0.2 ng/m³ threshold limit shall not be considered a violation of this rule until on or after September 5, 2018.

- (Bii) The owner/operator may conduct 24-hour sampling once every six days for hexavalent chromium if there is no single exceedance of the 0.70 ng/m³ level ~~applicable limit in Table 1~~ during 12 continuous months of monitoring. On this sampling schedule, the hexavalent chromium concentration from a 90-day rolling average at each monitoring station shall not exceed 0.70 ng/m³, excluding background. ~~the applicable limit in Table 1.~~ If there is an exceedance while on this sampling schedule, sampling shall ~~immediately~~ revert back to once every three days. For monitoring sample retrieval in which collection occurs on a weekend or facility observed national or state holiday, the sample may be collected the following business day. Reverting back to the more frequent sampling schedule stated in clause (d)(11)(A)(i) due to an exceedance of the threshold must occur within 14 calendar days following receipt of written notification from the Executive Officer that an exceedance has occurred.
- ~~(C)(iii)~~ Upon 12 consecutive months of compliance with the most stringent hexavalent chromium concentration limit in Table 1, the

owner/operator may submit for approval an amended Compliance Monitoring Plan to operate a minimum of one monitoring station for the entire property at a location in the predominantly downwind direction from the emission source(s). While operating a reduced number of monitoring stations following approval of the submitted amended Compliance Monitoring Plan, if any applicable limit in Table 1 is exceeded at any time, the owner/operator shall revert back to a 1 in 3 day ambient monitoring sampling schedule in accordance with clause (d)(11)(A)(i) within 14 calendar days, except as provided by subparagraph (d)(11)(C). If, while operating a reduced number of monitoring stations, any applicable limit in Table 1 is exceeded three or more times during any consecutive 12 calendar months, the owner/operator shall submit for approval an amended Compliance Monitoring Plan to operate a minimum of three monitoring stations consistent with paragraph (d)(10) within 30 calendar days of being notified by the Executive Officer.

- (B) In the event of any exceedance of any applicable limit in Table 1, the owner/operator may provide information to the Executive Officer to substantiate its position that the primary cause of such exceedance is not attributed to its cement manufacturing facility. In demonstrating that the primary cause of such exceedance is not attributed to its facility, the owner/operator shall submit the following information to the Executive Officer within 14 calendar days of when the owner/operator knew or should have known of such exceedance:
- (i) Date and time of the exceedance;
 - (ii) Location of the monitor where exceedance was measured;
 - (iii) Monitored hexavalent chromium ambient air concentrations at all of the facility's monitors for the prior 90 days, including the dates of the measurements;
 - (iv) Wind direction(s) during the timeframe of the exceedance;
 - (v) Description of the alleged primary cause(s) and source(s) of the exceedance, including time frame and location; and
 - (vi) Other evidence demonstrating that the primary cause(s) of the exceedance is not attributed to the facility's operations or premises, such as other monitoring data, photographs, or video.
- (C) The Executive Officer shall consider the information submitted under subparagraph (d)(11)(B) and notify the owner/operator of the determination

in writing within 30 calendar days of receipt. If the Executive Officer determines that the primary cause(s) of the exceedance is not attributed to the cement manufacturing facility, the subject measurement would not be considered to be a violation or subject the facility to reverting back to 1 in 3 sampling in accordance to (d)(11)(A) or to the Compliance Plan requirements of (d)(11)(D).

(D) Within 60 days upon any exceedance of the applicable limit in Table 1 that occurs after September 5, 2016, except as provided by subparagraph (d)(11)(C), the owner/operator shall submit a Compliance Plan pursuant to subparagraph (d)(11)(E) for review and approval, and applicable fees must be paid pursuant to Rule 306 – Plan Fees. An exceedance of the applicable limit in Table 1, excluding background, after September 5, 2016 but before September 5, 2018 is not a violation of the rule. However, failure to obtain an approved Compliance Plan as a result of exceeding the applicable limit in Table 1 after September 5, 2016 is a violation of this rule. An exceedance of the applicable limit in Table 1 that occurs on or after September 5, 2018 will be considered to be a violation of this rule.

(E) The Compliance Plan shall include, but not be limited to, the following information:

(i) The name(s), address(es), and phone number(s) of the person(s) responsible for the preparation, submittal, and implementation of the plan;

(ii) A description of the activities, including a map depicting the location of the site, noting any defining landmarks or demarcations;

(iii) A listing of all potential sources of fugitive dust emissions within the property lines;

(iv) The owner/operator shall describe the implementation, including the application schedule/frequency of all applicable dust control measures listed in Rule 403 – Fugitive Dust;

(v) A list of additional control and/or stabilization measures to be implemented that includes a description of the measures, the equipment, process, or areas that will be affected, the anticipated reductions, and the dates the measures will be implemented. The description must include the application frequency of the measures and must be sufficiently detailed to demonstrate that all feasible measures will be utilized.

- (F) The Compliance Plan requirements of subparagraphs (d)(11)(D) and (d)(11)(E) will not apply to an owner/operator who has been required to submit a Health Risk Assessment under Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, subdivision (d), on or after January 1, 2015.
- (G) For facilities that elect to comply with (d)(5)(C), any exceedance of the concentrations listed in clauses (d)(11)(A) or (d)(11)(B) applicable limit in Table 1 will require enclosure of all clinker materials storage and handling if the Executive Officer confirms, through wind event monitoring data, that the cement manufacturing facility is the source of violation. The facility operator may select one of the following enclosure schedule: 25% of the facility's five-year annual average clinker material stored and handled, by weight, no later than 12 months from the date of the exceedance; and an incremental 25% per subsequent year until completion; or complete the total enclosure within 24 months from the date of exceedance.
- (12) Particulate Matter (PM10) Monitoring and Other Requirements
- The owner/operator of the cement manufacturing facility who accrues three or more approved notices of violation for an exceedance of the upwind/downwind level specified in Rule 403 within a 36-month period shall conduct PM10 ambient air monitoring. An amendment to the compliance monitoring plan to include PM10 monitoring protocols and procedures shall be filed within 90 days of the date of the third approved notice of violation. The monitoring equipment shall be installed and operated within 6 months from the date of modified plan approval and no later than one year from the date of the third approved notice of violation.
- (A) The owner/operator shall conduct continuous and real-time ambient air monitoring for PM10, using a continuous monitoring system, in accordance with a Compliance mMonitoring pPlan approved by the Executive Officer in a manner as set forth in subparagraphs (d)(10)(B) or (d)(10)(D), as applicable. The differences of PM10 concentrations from any two monitoring sites which represent upwind and downwind concentrations shall not exceed the amount and averaging time period specified in Rule 403.
- (B) The owner/operator shall apply dust suppressants on all openly stored non-clinker materials, unpaved roads, and unpaved areas within the facility, as well as take steps to decrease clinker dust, if the PM10 difference(s) set forth in Rule 403 are exceeded at any time.

- (13) Wind Monitoring
- (A) No later than September 8, 2009, the owner/operator shall install and operate wind monitoring equipment to conduct hourly wind monitoring according to a protocol approved by the Executive Officer.
- (B) On and after the date of operation of the wind monitoring equipment pursuant to subparagraph (d)(13)(A), the owner/operator shall cease all open handling of clinker material for a two-hour period in the event that instantaneous wind speeds exceed 25 miles per hour (mph), and if such wind speeds subsequently exceed 25 mph, a new two-hour period shall begin. During the aforementioned two-hour period, the facility would be exempt from the requirement of subparagraph (d)(1)(C) if the open handling of clinker material is ceased, provided that dust controls as required by District rules are applied; and unpaved roads are stabilized upon register of the high wind event via the wind monitoring equipment.
- (e) Monitoring and Source Testing at a Cement Manufacturing Facility
- (1) For the kilns and clinker coolers, the owner/operator shall continuously monitor and record operating parameters including, but not limited to, flue gas flow rates and pressure drops across the baghouses to monitor baghouse performance and ensure compliance with the opacity limit in subparagraph (d)(1)(A).
- (2) For all new baghouses greater than or equal to 10,000 actual cubic feet per minute, and for all existing baghouses of the top process particulate emitters as defined under subparagraph (c)(~~2830~~)(A), the owner/operator shall install, operate, calibrate and maintain a COMS or BLDS to monitor baghouse performance and ensure compliance with the opacity limit in subparagraph (d)(1)(A).
- (3) The owner/operator shall conduct visible emission observations with EPA Method 22 for process equipment equipped with air pollution control equipment at the following frequency:
- (i) Weekly for top process particulate emitters defined under subparagraph (c)(~~2830~~)(B) that are not equipped with BLDS or COMS;
- (ii) Monthly for top process particulate emitters defined under subparagraph (c)(~~2830~~)(B) that are equipped with BLDS or COMS; and
- (iii) Monthly for other process equipment.
- (4) The owner/operator shall monitor and record pertinent operating parameters, such as pressure drops, according to the Operation and Maintenance Procedure in

paragraph (e)(12) to monitor the performance of air pollution control equipment and ensure compliance with the opacity limit in subparagraph (d)(1)(A).

- (5) If the owner/operator receives an alarm from the BLDS, or COMS, the owner/operator shall immediately conduct an EPA Method 22 test and implement all necessary corrective actions to minimize emissions.
- (6) If the owner/operator observes visible emissions during any EPA Method 22 test, the owner/operator shall immediately implement all necessary corrective actions to minimize emissions, and conduct EPA Method 9 test within one hour of any observation of visible emissions.
- (7) For the kilns and clinker coolers, the owner/operator shall conduct an annual compliance source test in accordance with the test methods in subdivision (g) to demonstrate compliance with the emission limit(s) in subdivision (d). The first annual compliance source test in accordance with an approved source test protocol shall be conducted within ninety (90) calendar days after the compliance date specified in subdivision (d). The owner/operator shall submit a source test protocol to the Executive Officer no later than sixty (60) calendar days prior to the proposed test date for the Executive Officer's approval for the first compliance source test. The testing frequency may be reduced to once every 24 calendar months if the two most recent consecutive annual source tests demonstrate compliance with the limits. Upon notification by the Executive Officer, the testing frequency shall be reverted back to annual testing if any subsequent source test fails to demonstrate compliance with the limits. In lieu of annual testing, any owner/operator who elects to use all verified filtration products in its baghouses shall conduct a compliance test every five years.
- (8) By February 4, 2006, the owner/operator shall provide the Executive Officer a list of the top process particulate emitters as defined under subparagraph (c)(~~2830~~)(B), and the proposed testing schedule for these equipment. The owner/operator shall conduct compliance source tests on representative baghouses within each process system and submit test results for these processes every 5 years, with at least two source tests conducted in any calendar year. If there are any changes to the list of equipment to be tested or the testing schedule, the owner/operator shall notify the Executive Officer 60 calendar days before the test date.
- (9) The owner/operator shall not be required to test non-operational equipment, which is not in operation for at least 6 consecutive months prior to scheduled testing, as indicated in paragraph (e)(8) provided that the owner/operator shall conduct such test within one month after resuming operation.

- (10) During any compliance source test, the owner/operator shall monitor and record, at a minimum, all operating data for the selected operating parameters of the control equipment and the process equipment and submit this data with the test report.
- (11) The owner/operator shall submit a complete test report for any compliance source test to the Executive Officer no later than sixty (60) calendar days of completion of the source test.
- (12) Operation and Maintenance Procedures
 - (A) The owner/operator shall develop and implement an Operation and Maintenance Procedure to ensure that the performance of the air pollution control equipment is continuously maintained and operated. The Operation and Maintenance Procedure shall include, at a minimum, information on monitoring and recordkeeping procedures, routine maintenance procedures, corrective and preventive actions for the air pollution control equipment, and training related to EPA Method 22, EPA Opacity Test Method 9 and SCAQMD Opacity Test Method 9B, and other applicable information to demonstrate compliance with this rule.
 - (B) The owner/operator shall develop and implement an Operation and Maintenance Procedure that would require sufficient maintenance of internal roadways and areas, prompt cleanup of any pile of material spillage or carry-back, and application of chemical dust suppressant or other dust control methods to maintain surface stabilization of the open piles, spillage and carry-back to ensure compliance with the opacity standards in paragraph (d)(1) at all times.
 - (C) The owner/operator shall develop and maintain the Operation and Maintenance Procedures described under subparagraphs (e)(12)(A) and (e)(12)(B) within 6 months after November 4, 2005, and shall make the Operation and Maintenance Procedures available to the Executive Officer upon request.
- (f) Reporting and Recordkeeping at a Cement Manufacturing Facility
 - (1) The owner/operator shall maintain all records and information required to demonstrate compliance with the provisions of this rule in a manner approved by the Executive Officer for a period of at least five years which shall be made available to the Executive Officer upon request.
 - (2) The owner/operator of a facility shall keep, at a minimum, the following records to demonstrate compliance:

- (A) Daily records of applying chemical dust suppressants, watering, sweeping and cleaning activities;
 - (B) Appropriate records, on at least a monthly basis, for primary crushers, kilns, raw mills, and finish mills, production records of clinkers and cements and records of raw materials delivered to the facility in order to determine emissions;
 - (C) Test reports to demonstrate compliance with the emission standards in subdivision (d) including, but not limited to, PM emission rates, and opacity readings;
 - (D) Records of equipment malfunction and repair for the air pollution control equipment of the top process particulate emitters specified under subparagraph (c)(2830)(B);
 - (E) Daily records of all material handling, including loading and unloading, and storage pursuant to paragraphs (d)(2) and (d)(5);
 - (F) Monitoring data pursuant to subparagraphs (d)(11), and (d)(12) as applicable, and supporting documentation, including, but not limited to chains of custody and laboratory results;
 - (G) Hourly records of wind speed and direction pursuant to subparagraph (d)(13);
 - (H) Records of all maintenance activities pursuant to clause (d)(5)(C)(i) and paragraph (h~~i~~)(7), including any equipment testing after the repairs and duration of wind fence removal;
 - (I) Records of clinker pile reclamation, importation, and transport pursuant to clause (d)(5)(C)(i), including duration of wind fence removal; and
 - (J) Records of all vehicle traffic and monthly average road trips pursuant to paragraph (h~~i~~)(4).
- (3) Monitoring data shall be reported monthly to, and in an electronic format specified by, the Executive Officer. In the event the facility owner/operator finds that an exceedance of the levels specified in subparagraphs (d)(11)(A), (d)(11)(B), or (d)(12)(A) as applicable has occurred, the owner/operator shall report in writing such finding to the Executive Officer, and follow up with a phone call the next business day after such finding.
- (g) Test Methods and Calculation for a Cement Manufacturing Facility
- (1) The owner/operator shall use the following source test methods, as applicable, to determine the PM emission rates. All source test methods referenced below shall

be the most recent version issued by the respective organization. All test results in units of grains/dscf shall be determined as before the addition of any dilution or air, if present, that was not a part of the stream(s) processed by the device that was tested.

- (A) SCAQMD Source Test Method 1.1 or 1.2 – Velocity and Sample Traverse Points;
 - (B) SCAQMD Source Test Method 2.1 or 2.3 – Stack Gas Flow Rate;
 - (C) SCAQMD Source Test Method 3.1 – Stack Gas Density;
 - (D) SCAQMD Source Test Method 4.1 – Stack Gas Moisture;
 - (E) SCAQMD Source Test Method 5.2 or 5.3 - Determination of Particulate Matter Emissions in which reagent grade acetone shall be used to recover samples from the components of the sampling train located before the particulate filter;
 - (F) EPA Source Test Method 5 with the impinger analysis may be used in lieu of SCAQMD Source Test Method 5.2 or 5.3.
 - (G) EPA Source Test Method 5D with the impinger analysis may be used to measure PM emissions from positive pressure fabric filters.
- (2) Measurement of particulate matter emissions from the cement kiln shall provide for a correction of sulfur dioxide emissions collected in the particulate matter samples. Any measured gaseous sulfur dioxide emissions shall be excluded from the measurement of particulate matter emissions by subtracting from the mass of material collected in any impingers a mass equivalent to the amount of measured sulfur dioxide emissions based upon sulfuric acid dihydrate as specified in SCAQMD Source Test Methods 5.2 or 5.3.
- (3) Source tests for PM shall be taken and the average of the samples shall be used to determine the applicable emission rate in accordance with the following requirements:
- (A) Simultaneous duplicate samples shall be obtained unless the owner/operator demonstrates to the satisfaction of the Executive Officer that it is not physically feasible to do so, in which case the owner/operator shall take sequential triplicate samples;
 - (B) All samples must have minimum sampling volume of 120 cubic feet or a minimum PM catch of 6 milligrams per sample shall be collected;
 - (C) For duplicate samples, the source test shall be deemed ~~invalid~~ invalid if:
 - (i) both samples are below 0.002 grain/dscf; or

- (ii) the difference between the two samples is ~~greater~~less than 35% of the average of the two samples in the applicable units specified in subdivision (d) and if the difference between the sample catches normalized to the average sampling volume is ~~greater~~less than 3.5 milligrams. If the source test is deemed invalid, the test shall be repeated; and
- (D) For triplicate samples, upon approval of the Executive Officer or designee, if the owner/operator can demonstrate that the process conditions including, but not limited to, the throughput, quantity, type, and quality of all feedstock to the equipment process, and the emission control equipment conditions have not changed throughout the sequential test period, then the owner/operator may apply the Dixon outlier test at the 95% significance level to check for and discard one outlier, and shall use the average of the two remaining samples to determine PM emissions.
- (4) The owner/operator may use alternative or equivalent source test methods, as defined in U.S. EPA 40 CFR 60.2, if they are approved in writing by the Executive Officer, the California Air Resources Board, and the U.S. Environmental Protection Agency.
- (5) The owner/operator shall use a test laboratory approved under the SCAQMD Laboratory Approval Program for the source test methods cited in this subdivision if such approved lab exists. If there is no approved laboratory, then approval of the testing procedures used by the laboratory shall be granted by the Executive Officer on a case-by-case basis based on appropriate SCAQMD protocols and procedures.
- (6) The owner/operator shall use the methods specified in the SCAQMD Rule 403 Implementation Handbook to determine threshold friction velocity and stabilized surface; and EPA Opacity Test Method 9 and Method 22, or SCAQMD Opacity Test Method 9B to determine opacity.
- (7) When more than one source test method or set of source test methods are specified for any testing, the application of these source test methods to a specific set of test conditions is subject to approval by the Executive Officer. In addition, a violation established by any one of the specified source test methods or set of source test methods shall constitute a violation of the rule.

(h) Requirements After Facility Closure

- (1) The requirements of this subdivision (h) shall apply after facility closure to the owner/operator of the property on which a cement manufacturing facility operated

on or after November 4, 2005, and these requirements shall cease to apply in accordance with paragraph (h)(6).

- (2) The owner/operator shall continue the applicable hexavalent chromium ambient monitoring pursuant to the current approved Compliance Monitoring Plan and shall continue complying with the Compliance Plan pursuant to subparagraphs (d)(11)(D) and (d)(11)(E), as applicable.
- (3) In the event of the need to relocate an ambient hexavalent chromium monitor, the owner/operator shall submit an amendment to the Compliance Monitoring Plan in accordance with subparagraph (d)(10)(D) prior to such relocation. The Executive Officer shall approve or disapprove the request within 14 calendar days of receipt. The monitor(s) shall be moved back to the original location(s) or other approved locations(s) within the timeframe specified by the Executive Officer. The Executive Officer's decision is appealable to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans.
- (4) The owner/operator shall provide the SCAQMD with monitoring calibration and maintenance data upon request of the Executive Officer.
- (5) The owner/operator shall do all of the following:
 - (A) Unless the facility has a reclamation plan pursuant to the Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) approved by the lead agency, within 90 calendar days of cement manufacturing facility closure, the owner/operator shall submit a Compliance Plan for Post Closure Activities to the Executive Officer for review and pay the plan fees as specified in Rule 306. The Executive Officer shall approve or disapprove the request within 60 calendar days of receipt. The Executive Officer's decision is appealable to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans. The Compliance Plan for Post Closure Activities shall, at a minimum, include the following:
 - (i) Detailed descriptions of control measures from SCAQMD Rule 403 – Fugitive Dust and other SCAQMD rules, and permanent stabilization of the property, including paving and/or revegetation;
 - (ii) A site-specific assessment using soil sampling, historic activities, or other means, identifying areas determined not to be potentially contaminated by hexavalent chromium contamination. If approved by the Executive Officer, those areas determined not to be potentially contaminated may be excluded from the provisions of clause (h)(6)(A)(ii);

- (iii) A description of measures to be implemented to ensure the ambient air concentration of hexavalent chromium as specified in Table 1 will not be exceeded following facility closure, including measures to address dismantling or demolition of cement manufacturing or related equipment, the removal of cementitious dust or other material build-up, or any remediation-related activity;
 - (iv) Additional measures that can be implemented in the event there is an exceedance of the hexavalent chromium concentrations specified in Table 1 following facility closure; and,
 - (v) Provisions for transferring responsibility for continued hexavalent chromium monitoring pursuant to subparagraph (d)(11)(A) to any new owner(s) until the conditions of paragraph (h)(6) are achieved.
- (B) If the ambient air concentrations of hexavalent chromium exceed the applicable limits in Table 1, the owner/operator shall temporarily suspend facility activities until measures in the approved Compliance Plan for Post Closure Activities are implemented. If a previously unidentified activity which the measures do not address contributes to the exceedances, then a revised Compliance Plan for Post Closure Activities will be required to be submitted and approved by the Executive Officer before facility activities can resume. The Executive Officer shall approve or disapprove the submitted revised Compliance Plan within 60 calendar days of receipt. The Executive Officer's decision is appealable to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans.
- (6) The requirements of paragraphs (h)(1) through (h)(5) shall cease to apply when both subparagraphs (A) and (B) below are achieved:
- (A) One of the following occurs:
 - (i) Reclamation is completed according to a plan approved by the lead agency consistent with the Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796); or
 - (ii) Completion of clean-up/rehabilitation of the property to minimize fugitive dust that may contain hexavalent chromium, in accordance with the approved Compliance Plan for Post Closure Activities.
 - (B) The owner/operator demonstrates compliance with the applicable hexavalent chromium threshold limit in Table 1 for a subsequent three (3) month period after completion of reclamation or clean-up/rehabilitation in subparagraph (h)(6)(A).

(hi) Exemptions

- (1) The owner/operator is exempt from installing a three-sided barrier or enclosure, or using the test methods in the SCAQMD Rule 403 Implementation Handbook for the demonstration of surface stabilization for open storage piles if 90% of the pile's mass consists of materials that are larger than ½ inch. Applicability of this exemption shall be determined through the measurement of any composite sample of at least 10 pounds taken from a minimum depth of 12 inches below the pile surface, and from various locations in the pile, but not from within 12 inches from the base of the pile. This exemption is limited to open storage piles that contain only materials other than clinker, providing that such piles meet the performance standards in subparagraphs (d)(1)(B) and (d)(1)(C).
- (2) The owner/operator is exempt from the use of chemical dust suppressants for internal unpaved roads if the use of applicable chemical dust suppressants on that specific unpaved road violates the rules and/or regulations of the local Water Quality Control Board or other government agency provided the owner/operator uses water in sufficient quantity and frequency to stabilize the road surface and the owner/operator notifies the Executive Officer in writing 30 days prior to the use of water.
- (3) Haul trucks are not required to use designated roads for haul trucks if they travel on unpaved roads complying with the requirements in clause (d)(7)(A)(ii).
- (4) The owner/operator is exempt from the use of chemical dust suppressants in clause (d)(7)(A)(ii) where a road is used less than a monthly average of twice a day by a designated vehicle at a speed limit less than 15 miles per hour.
- (5) The owner/operator is exempt from the use of chemical dust suppressants on unpaved areas specified in clause (d)(7)(A)(ii) during a period for demolition activities of no longer than six (6) calendar months provided that the owner/operator uses water in sufficient quantity and frequency to stabilize the unpaved areas, meets the opacity requirements in subparagraphs (d)(1)(B) and (C) at all times, and keeps sufficient records to demonstrate compliance.
- (6) With the exception of primary crushing, open material storage piles, and covers and existing enclosures for conveying systems, the provisions of this rule shall not apply to equipment or operations that are subject to Rule 1157 or Rule 1158 located at the cement manufacturing facilities, provided that there is no backsliding from the current level of control as stated in the permits approved by the Executive Officer prior to November 4, 2005 or as required under Rule 1157 and Rule 1158, whichever is more stringent.

- (7) The owner/operator is exempt from the requirements in clause (d)(5)(C)(i) in the event the wind fence material needs to be removed to perform periodic maintenance of the clinker crane or building. During the time the wind fence material is removed, the clinker crane shall not actively transport clinker material in the building, except for post maintenance equipment testing.
- (8) During day(s) in which the instantaneous wind speeds exceed 25 mph using the on-site wind monitoring equipment pursuant to (d)(13)(A), the owner/operator is exempt from the hexavalent chromium and PM10 averaging provisions of subparagraphs (d)(11)(A) ~~and/or (d)(11)(B)~~, and (d)(12)(A) as applicable, provided all open handling of clinker material is ceased and dust controls are applied pursuant to subparagraph (d)(13)(B). If the Executive Officer determines a significant potential of re-entrained hexavalent chromium containing dust from the facility exists during such high wind events, the owner/operator shall implement an approved Mitigation Monitoring Plan to minimize exposure to the surrounding area and to ensure implementation of all applicable dust control measures to meet the requirements of subparagraphs (d)(11)(A) ~~and/or (d)(11)(B)~~, and (d)(12)(A), as applicable. The Mitigation Monitoring Plan is due 90 days, inclusive of appropriate plan fees pursuant to Rule 306, after notification by the Executive Officer.

ATTACHMENT F

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

November 2015

Deputy Executive Officer
Planning, Rule Development and Area Sources
Philip M. Fine, Ph.D.

Assistant Deputy Executive Officer
Planning, Rule Development and Area Sources
Jill Whynot

Planning and Rules Manager
Planning, Rule Development and Area Sources
Tracy A. Goss, P.E.

Author: Tuyet-le Pham – Air Quality Specialist

Contributors: Payam Pakbin, Ph.D. – Air Quality Specialist
Elaine Shen, Ph.D. – Program Supervisor
Jeffrey Inabinet – Air Quality Specialist

Reviewed By: David Ono – Program Supervisor
Barbara Baird – Chief Deputy District Counsel
Ruby Fernandez – Senior Deputy District Counsel

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

Chairman: DR. WILLIAM A. BURKE
Speaker of the Assembly Appointee

Vice Chairman: DENNIS YATES
Mayor, Chino
Cities of San Bernardino County

MEMBERS:

MICHAEL D. ANTONOVICH
Supervisor, Fifth District
County of Los Angeles

BEN BENOIT
Mayor, Wildomar
Cities of Riverside County

JOHN J. BENOIT
Supervisor, Fourth District
County of Riverside

JOE BUSCAINO
Councilmember, 15th District
City of Los Angeles Representative

MICHAEL A. CACCIOTTI
Councilmember, South Pasadena
Cities of Los Angeles County/Eastern Region

JOSEPH K. LYOU, Ph. D.
Governor's Appointee

JUDITH MITCHELL
Councilmember, Rolling Hills Estates
Cities of Los Angeles County/Western Region

SHAWN NELSON
Supervisor, Fourth District
County of Orange

DR. CLARK E. PARKER, SR.
Senate Rules Committee Appointee

MIGUEL A. PULIDO
Mayor, Santa Ana
Cities of Orange County

JANICE RUTHERFORD
Supervisor, Second District
County of San Bernardino

EXECUTIVE OFFICER:

BARRY R. WALLERSTEIN, D.Env

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I. EXECUTIVE SUMMARY

Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities was adopted in November 2005. The original rule requires cement manufacturing facilities to comply with specific requirements applicable to various operations, as well as materials handling and transport at the facilities. Riverside Cement (RC) in Riverside and California Portland Cement Company (CPCC) in Colton are the two cement manufacturing facilities in the SCAQMD's jurisdiction subject to Rule 1156.

Rule 1156 was amended in March 2009 to further reduce particulate emissions and to address elevated ambient concentrations of the carcinogen, hexavalent chromium (Cr^{+6}), observed at the Rubidoux monitoring station in Western Riverside County as part of the third Multiple Air Toxics Emissions Study (MATES III). To protect the public from Cr^{+6} exposure, the amendments included a threshold for Cr^{+6} that was established to be 0.70 ng/m^3 (excluding background), based on a 100-in-a-million fence-line cancer risk under the Office of Environmental Health Hazard Assessment's (OEHHA) risk assessment guidelines in effect at the time of amendment. Based on MATES III, a $0.16 \text{ ng/m}^3 \text{ Cr}^{+6}$ background was derived based on the two-year sampling effort at nine fixed-site monitoring stations across the Basin (excluding the Rubidoux station). Rubidoux station was excluded from the derivation as its Cr^{+6} levels were likely influenced by the cement manufacturing facilities. Therefore, a fence-line effective limit was established at 0.860 ng/m^3 ($0.70 + 0.160$). The rule amendment also required additional control measures such as: clinker storage area protection, Cr^{+6} ambient monitoring, and wind monitoring, with contingencies (i.e., clinker enclosure based on Cr^{+6} results and PM10 monitoring in case of elevated concentrations). As part of the rule amendment Resolution, the Board directed staff to re-evaluate the need for, and the frequency of, Cr^{+6} ambient monitoring after five (5) years of data collection, and to establish a working group to develop a Facility Closure Air Quality Plan Option (Closure Plan).

Staff met with the working group in 2010 and 2011 to discuss the criteria for facility closure and conditions to potentially sunset Cr^{+6} ambient monitoring. A draft closure plan was developed and presented to the Stationary Source Committee (SSC) in 2012, but was left as a living document since neither facility was producing clinker at the time and there was uncertainty regarding future cement manufacturing activities given the economic recession. Currently, both cement manufacturing facilities are still non-operational regarding clinker production. RC and CPCC only process clinker or cement material imported from facilities outside the SCAQMD's jurisdiction.

The rule proposal includes requirements for current owners/operators of the affected property before and after cement manufacturing facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. The proposal is intended to minimize potential air quality impacts from cement facility closure and to streamline Cr^{+6} ambient monitoring.

Staff also proposes to revise the Cr⁺⁶ ambient air monitoring fence-line threshold as a result of the 2015 update to the Office of Environmental Health Hazard Assessment's (OEHHA) risk assessment guidelines.

Staff is proposing to change the fence-line Cr⁺⁶ ambient air monitoring threshold from 0.7 ng/m³ to 0.20 ng/m³ (excluding background), effective September 5, 2016, and to update and refine the calculation determining background levels. The change from 0.7 to 0.2 ng/m³ maintains the 100-in-a-million risk threshold under the new OEHHA guidelines that account for early-life exposures to air toxics. The Cr⁺⁶ ambient air monitoring background levels are currently 0.065 ng/m³ and 0.056 ng/m³ for a 30-day and 90-day rolling average, respectively, based on the 90th percentile background concentrations observed at the Fontana and Rubidoux stations as part of the fourth Multiple Air Toxics Exposure Study (MATES IV). With these background levels, the new Cr⁺⁶ effective limit will be 0.265 ng/m³ and 0.256 ng/m³ for a 30-day and 90-day rolling average, respectively. Staff also proposes an implementation schedule for the new fence-line limit phase-in, including allowances for exceedances of the lower 0.2 ng/m³ standard to not be considered to be a violation of the rule prior to September 5, 2018.

Staff conducted a public consultation meeting in April 2015 to solicit input on the April version of proposed rule, including dust control measures. In response to industry's request, the Public Hearing was rescheduled to September 2015 to allow additional time for stakeholders to provide comments. Staff conducted a public workshop in June 2015 to seek additional input on the additional proposed Cr⁺⁶ ambient air monitoring background and fence-line threshold, the implementation schedule for the new Cr⁺⁶ standard and compliance requirements in the event of Cr⁺⁶ exceedance, and the criteria to validate duplicate source tests at low PM10 concentrations (significantly less than the PM emission limit of 0.01 grain/dscf, in paragraph (d)(6)). In addition, staff has worked extensively with representatives of both cement facilities.

The following summarizes the key proposed amendments:

- Rule purpose and applicability are updated to clarify applicability of the rule after facility closure;
- Criteria for facility closure relative to cement manufacturing operation: activities must be completely ceased (i.e., blending silo, kiln, clinker cooler, and clinker grinding/milling) and related permits must be surrendered or have expired and are no longer reinstatable;
- Condition for reducing Cr⁺⁶ ambient monitoring stations at existing cement facilities:
 - Approval for reduced number of monitoring stations (minimum of one) may be obtained upon subsequent 12 consecutive months of demonstrating less than Cr⁺⁶ threshold (0.70 ng/m³ and/or 0.20 ng/m³, excluding background, depending on the compliance date) after date of rule amendment;
 - While operating a reduced number of monitoring stations, the owner/operator shall revert back to a 1 in 3 day ambient monitoring

sampling schedule within 14 calendar days of an exceedance if the applicable thresholds are exceeded. If the applicable thresholds are exceeded three or more times in any 12 consecutive months, the owner/operator shall submit for approval an amended Compliance Monitoring Plan to operate a minimum of three monitoring stations consistent with the original monitoring requirements of paragraph (d)(10) within 30 calendar days of being notified by the Executive Officer;

- Effective September 5, 2016, ambient Cr⁺⁶ concentrations from a 30-day or 90-day rolling average at each monitoring station shall not exceed 0.20 ng/m³ (excluding background). Prior to this date, the previous Cr⁺⁶ threshold of 0.70 ng/m³ (excluding background) remains in effect;
- An exceedance of the 0.2 limit after September 5, 2016 but prior to September 5, 2018 is not considered a violation of the rule; however, an exceedance after September 5, 2018 would be considered a violation.
- Owner/Operators may submit within 14 calendar days of any Cr⁺⁶ exceedance (0.70 ng/m³ and/or 0.20 ng/m³, excluding background), supportive information to demonstrate that the primary cause of such exceedance is not attributed to the cement manufacturing facility, which must include the following for the evaluation:
 - Date and time of the exceedance;
 - Location of the monitor where exceedance was measured;
 - Previous 90-day data including the Cr⁺⁶ ambient air concentrations from facility monitors and the dates of the measurements;
 - Wind direction(s) during the timeframe of the exceedance;
 - Description of the alleged primary cause(s) and source(s) of the exceedance, including timeframe(s) and location(s); and
 - Other evidence demonstrating that the primary cause(s) of the exceedance is not attributed to the cement manufacturing facility.
- Written determination shall be made to owner/operator of the cement manufacturing facility within 30 calendar days of receiving the above information.
- Within 60 calendar days from receiving notification that cement manufacturing is the source of an exceedance of 0.20 ng/m³ (excluding background) occurring after September 5, 2016 but prior to September 5, 2018, a Compliance Plan must be submitted for approval in addition to the appropriate fees. Failure to obtain an approved Compliance Plan is a violation of Rule 1156.
- The Compliance Plan must consist of a description of all facility activities, general contact information, and a listing of all potential sources of fugitive dust emissions within the property line, as well as the following:
 - Implementation, including the application schedule/frequency of all applicable dust control measures listed in Rule 403 – Fugitive Dust, and;
 - A list of additional control and/or stabilization measures to be implemented, including a description of the measures, the equipment, process, or areas that will be affected, the anticipated reductions, and the dates the measures will be implemented. The description must include the application

frequency of the measures and must be sufficiently detailed to demonstrate that all feasible measures will be utilized.

- The Compliance Plan requirement will not apply to an owner/operator that has been required to submit a Health Risk Assessment under Rule 1402 – Control of Toxic Air Contaminants from Existing Sources, on or after January 1, 2015.
- Criteria to validate duplicate source tests:
 - PM10 concentrations of both samples must be below 0.002 grain/dscf; or
 - The difference between two samples shall be less than 35% of their average and the difference between the sample catches (normalized to the average sampling volume) shall be less than 3.5 milligrams.
- Requirements after facility closure:
 - The facility closure provision is applicable only to owner/operator of the property on which a cement manufacturing facility operated on or after November 4, 2005;
 - Continued Cr⁺⁶ ambient monitoring in compliance with the applicable thresholds and Compliance Plan, inclusive of reduction to a minimum of one monitoring station;
 - Provisions for Cr⁺⁶ ambient monitoring relocation;
 - Requirement for monitoring calibration and maintenance;
 - Provision for Compliance Plan for Post Closure Activities, where a facility does not have a current reclamation plan approved by a lead agency:
 - (1) A submission of the plan and fees to SCAQMD within 90 calendar days of facility closure.
 - (2) The plan shall include the following at a minimum:
 - ✓ Contact information for persons responsible for preparation, submittal and implementation of the plan.
 - ✓ Detailed descriptions of control measures from Rule 403 and other SCAQMD's rules to be implemented;
 - ✓ A site-specific assessment so that, if approved, areas determined not to be potentially contaminated can be excluded from the reclamation/clean up/rehabilitation activities;
 - ✓ A description of control measures to be implemented to ensure compliance with the applicable Cr⁺⁶ ambient threshold during facility closure; and,
 - ✓ Additional control measures to be implemented in the event of Cr⁺⁶exceedance
 - (3) All activities must be temporarily suspended in the event of any Cr⁺⁶ ambient threshold exceedance until the control measures in the approved Compliance Plan for Post Closure Activities are implemented.
 - The facility closure provisions cease to apply if both (1) and (2) occur:
 - (1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property in

- accordance with an approved Compliance Plan for Post Closure Activities; and
- (2) Subsequent three months of demonstrated compliance with the applicable Cr⁺⁶ ambient monitoring thresholds after completion of (1) above.

II. BACKGROUND

Portland cement is commonly manufactured through a dry method in which the combination of ground limestone rock and iron ore or other materials is fed to a cement kiln. As the materials move through the rotating kiln at high a temperature (about 2,700 degree Fahrenheit), some elements are driven off as gases or particulates and the remaining form a new substance called clinker. Clinker comes out of the kiln as hot, gray spheres about the size of large marbles. Clinker is cooled, ground and/or milled to a very fine product, and blended with small amounts of gypsum and fly ash to become cement, which is sold in packages or in bulk.

According to staff analysis in 2008 that included soil sampling, ambient air samples, and emissions modeling, uncontrolled clinker material handling at cement manufacturing facilities associated with outdoor storage, transfer and re-entrained road dust were found to be the sources of the elevated ambient hexavalent chromium (Cr⁺⁶) concentrations in Rubidoux and at monitors placed in the adjacent communities. Kilns and finish mills at cement manufacturing facilities can also influence the formation and emissions of Cr⁺⁶. Cr⁺⁶ is a potent, known carcinogen, exposure to which could result in lung cancer, irritation and damage to the skin, eyes, nose, throat, and lung, asthma symptoms, and/or allergic skin reactions. Since clinker materials might also contain other toxics such as lead, arsenic, cadmium, and cobalt in addition to Cr⁺⁶, controlling emissions from these activities is essential.

Currently, both RC and CPCC are no longer producing clinker on-site. CPCC only imports cement from its Mojave facility for ~~batch-cement terminal~~ operations. RC previously manufactured clinker at the Riverside facility, but discontinued this operation many years ago. RC continues its cement manufacturing at this location by bringing in clinker from its ~~Mojave-Oro Grande~~ facility for grinding, blending, and packaging.

At the time of the 2009 amendment, CPCC and RC had expressed a need for an off-ramp or sunset in Cr⁺⁶ monitoring upon facility closure. As currently written, Rule 1156 does not contain any such provisions. After facility closure, a cement manufacturing facility property can be converted for a variety of other uses. These potential uses can provide long-term stabilization of the land and as a result, can improve air quality in the area; however, during such land transformation, Cr⁺⁶ in soils might be re-entrained during land disturbance activities such as demolition, construction, grading, and paving. To ensure no degradation to air quality after facility closure and long-term public health protection, continued Cr⁺⁶ ambient monitoring after closure, and soil sampling, ground stabilization, and dust mitigation at the property related to land disturbing activities are important. However, recognizing a continued low level of Cr⁺⁶ concentrations in compliance with the Rule

1156 threshold during the past five years of monitoring, staff is proposing conditions for reducing or eliminating the required Cr⁺⁶ ambient monitoring, at existing cement facilities and after facility closure, in addition to other proposed rule revisions.

A. *Regulatory History*

Rule 1156 - Further Reductions of Particulate Emissions from Cement Manufacturing Facilities was adopted in 2005. The rule requires cement manufacturing facilities to comply with specific requirements, ranging from tarping, partial cover, dust suppressant, and total enclosure to control devices applicable to various operations and equipment, including kiln and clinker coolers and material storage, handling, processing, and transferring. To prevent track-out from the facility's roadways and areas, Rule 1156 requires specific controls, such as sweeping, speed limits, chemical dust suppressants, gravel pads, rumble grates, and truck/wheel washers, etc. RC Riverside Cement (RC) in Riverside and California Portland Cement (CPCC) in Colton are the only two cement manufacturing facilities in the SCAQMD's jurisdiction, and thus the only two facilities subject to Rule 1156.

Rule 1156 was amended in March 2009 to address unexpected elevated levels of Cr⁺⁶, a potent known human carcinogen, observed at the Rubidoux monitoring station and at monitors adjacent to the facilities as part of the MATES III. These elevated concentrations were traced back to uncontrolled clinker materials handling associated with outdoor storage and transfer, and to re-entrained road dust at cement manufacturing facilities. Cr⁺⁶ emissions also occurred from facility operations, including kilns, kiln dust ponds, and finish mills since they can also influence the formation and emissions of Cr⁺⁶.

The 2009 rule amendment included adoption of an ambient Cr⁺⁶ limit of 0.70 ng/m³ based on a 100 in a million fence-line risk, less background. The 2009 rule amendment also required additional control measures at the facilities, such as: clinker storage area protection (i.e., wind fencing and impervious tarps), Cr⁺⁶ ambient monitoring, and wind monitoring, with contingencies (i.e., clinker enclosure based on Cr⁺⁶ results and PM10 monitoring in case of elevated concentration), to further reduce particulate and Cr⁺⁶ emissions from cement manufacturing facilities. Under a Governing Board adoption resolution, the need for and frequency of Cr⁺⁶ ambient monitoring was to be re-evaluated after five (5) years of data collection and a working group was established to develop a Facility Closure Air Quality Plan Option (Facility Closure Plan). Cr⁺⁶ ambient monitoring results have been reported annually to the Stationary Source Committee beginning in 2011, and bi-annually to the Governing Board beginning in 2012.

B. *Five-Year Hexavalent Chromium Ambient Monitoring*

Figure 1 shows the previous locations of SCAQMD's Cr⁺⁶ monitoring stations (numbered 1 through 10) in Western Riverside and San Bernardino Counties that were used during the initial investigation. All but location 7

were subsequently removed as the Rule 1156 requirements for monitoring at the facilities were implemented. Figure 1 also shows the current locations of the four Cr⁺⁶ monitoring stations at RC and the three stations at CPCC.

Figure 1 - Sampling Locations for Hexavalent Chromium in Western Riverside and San Bernardino Counties

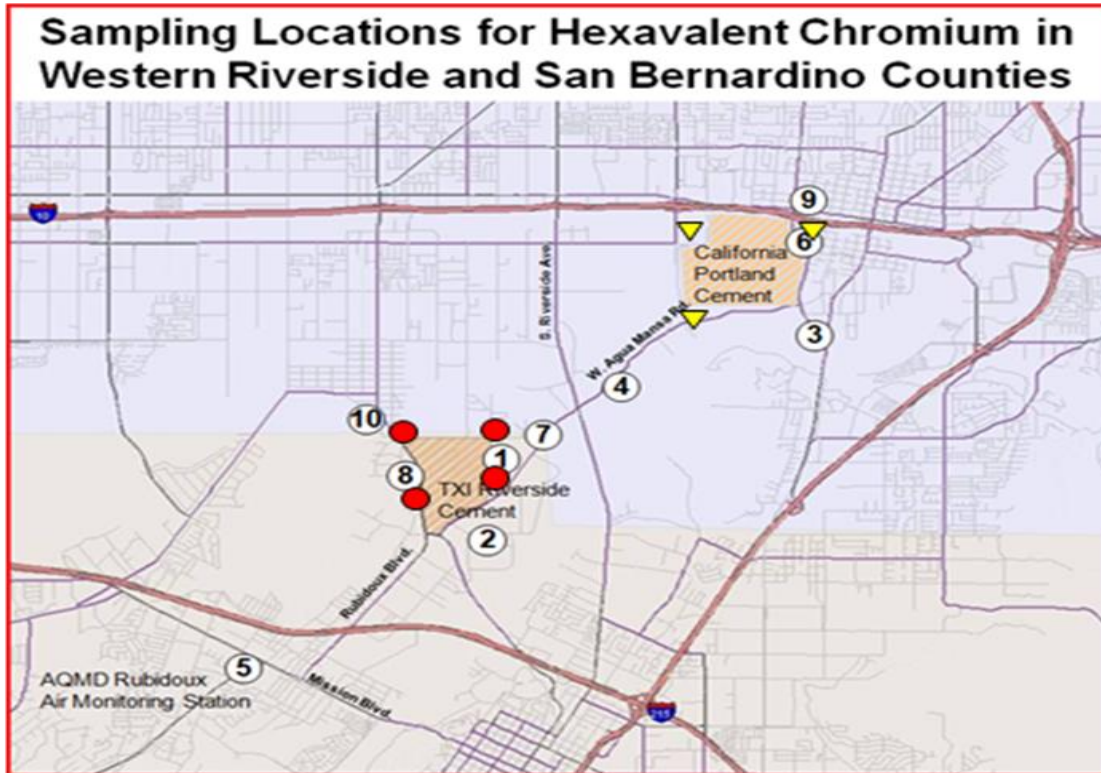
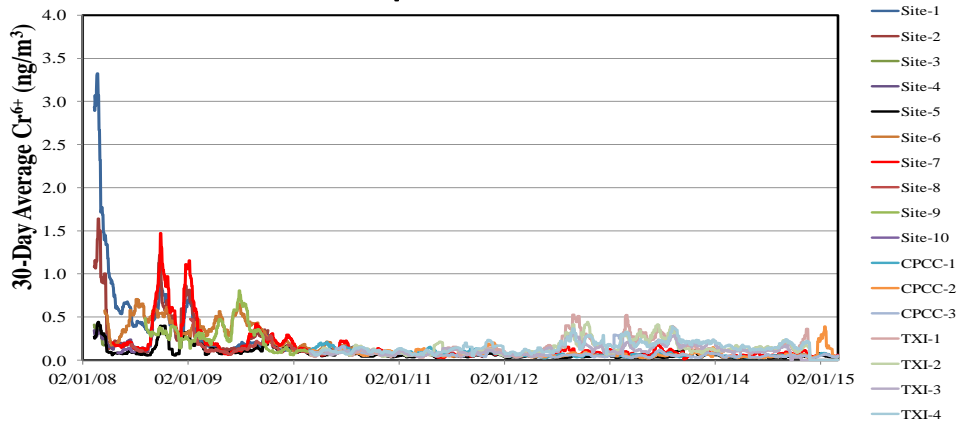


Figure 2 depicts the 30-day rolling average of Cr⁺⁶ ambient air concentrations at the monitoring stations in Western Riverside and San Bernardino Counties, as well as at CPCC and RC since 2008.

Since implementation of a settlement agreement with RC in August 2008 and RC's voluntary shut down of its white cement kilns and finish mills due to the economic climate, the 30-day rolling average of Cr⁺⁶ shows an overall downward trend, except for some incidents where elevated ambient concentrations of Cr⁺⁶ were detected. However, since the implementation of amended Rule 1156 in March 2010, the 30-day rolling average of Cr⁺⁶ ambient concentrations measured at the monitoring stations in Western Riverside and San Bernardino Counties, as well as at CPCC and RC, indicate continued compliance with the current Rule 1156 threshold (0.7 ng/m³, excluding background concentration of 0.16 ng/m³).

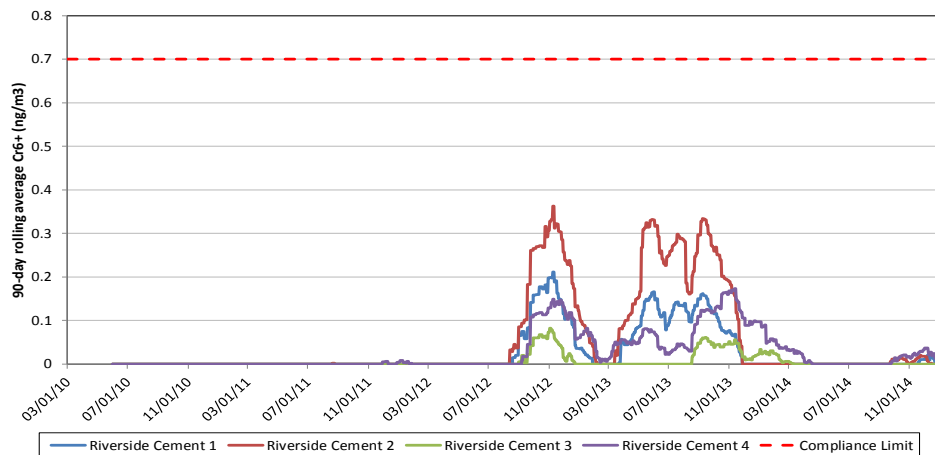
Figure 2 - 30-Day Rolling Average
All Sites | 2008 - Current



Per Rule 1156, after 12 months of no exceedances of Cr⁶⁺ ambient air concentrations under the 1-in-3-day sampling schedule, CPCC and RC changed their 24-hour Cr⁶⁺ ambient monitoring sampling to a 1-in-6-day schedule and a 90-day average threshold calculation in April 2011.

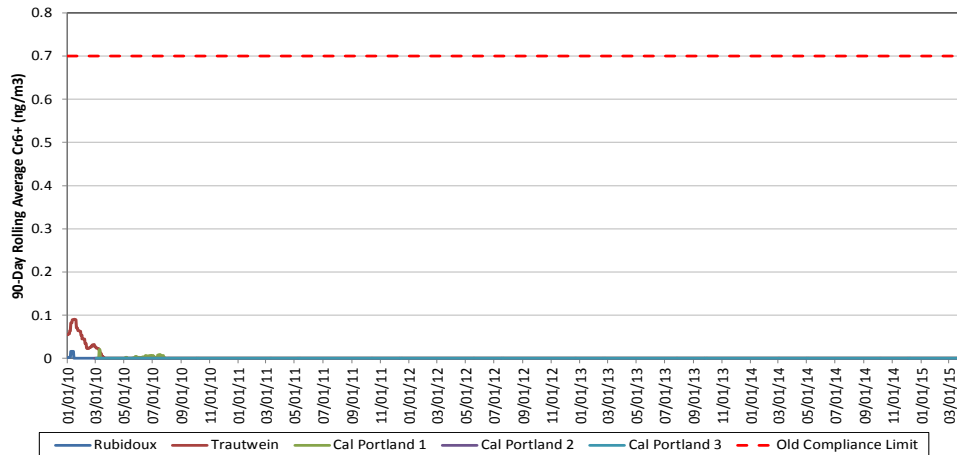
Figures 3 and 4, respectively, depict RC and CPCC’s 90-day rolling average of Cr⁶⁺ ambient air concentrations, excluding the background of 0.16 ng/m³ as per Rule 1156. The background level of 0.16 ng/m³ was based on the Cr⁶⁺ ambient air concentrations from the two-year sampling effort of MATES III (from 2004 to 2006) at nine fixed-site monitoring stations across the Basin (excluding the Rubidoux station). The Rubidoux station was excluded from the calculation as its Cr⁶⁺ levels were influenced by the cement manufacturing facilities.

Figure 3 - 90-Day Rolling Average
minus Background – Riverside Cement¹



¹ Per the South Coast AQMD 2005 Staff Report for Rule 1156, a background concentration of 0.16 ng/m³ (MATES III Study; average Cr⁶⁺ concentration at nine stations, excluding Rubidoux) is utilized for rolling average compliance calculations. The rolling average is reported as a value of zero when the rolling average is less than or equal to zero.

Figure 4 - 90-Day Rolling Average minus Background – CPCC¹



¹ Per the South Coast AQMD 2005 Staff Report for Rule 1156, a background concentration of 0.16 ng/m³ (MATES III Study; average Cr⁶⁺ concentration at nine stations, excluding Rubidoux) is utilized for rolling average compliance calculations. The rolling average is reported as a value of zero when the rolling average is less than or equal to zero.

The 90-day rolling averages of Cr⁺⁶ are calculated based on the 1-in-6-day sampling for data measured after April 2011 when both facilities converted from a 1-in-3-day sampling schedules to a 1-in-6-day sampling. The 90-day rolling averages prior to April 2011 are calculated based on the 1-in-3-day measurements. The rolling average is reported as a zero value if it is less than or equal to zero (at or below background). For RC, the peak of the 90-day rolling average of Cr⁺⁶ ambient air concentrations collected at each of their four monitoring stations was below 0.4 ng/m³, less than the Rule 1156 limit of 0.7 ng/m³. For CPCC, the 90-day rolling average of Cr⁺⁶ ambient air concentrations collected at each of their three monitoring stations are all below 0.1 ng/m³.

C. Cement Facility Closure Working Group

The Cement Facility Closure Working Group was convened and consisted of representatives from CPCC and RC, as well as staff from the Santa Ana Regional Water Quality Control Board and the San Bernardino County Land Use Services Department. The working group’s purpose was to ensure minimal air quality impacts from cement facility closure and long-term health protection for the surrounding communities.

Staff conducted two working group meetings in 2011 and 2012. Potential criteria for facility closure, ways to measure long-term soil stability, steps to ensure long-term health protection, and conditions to sunset the Cr⁺⁶ monitoring requirements were discussed. A draft Facility Closure Plan,

inclusive of input and recommendations from the working group, was presented to the Stationary Source Committee (SSC) in 2012, but was left as a living document since neither facility was producing clinker at the time and uncertainties existed as to the restarting of clinker and cement manufacturing activities when the economy recovered.

D. Update to OEHHA Risk Assessment Guidelines

Since the 1990s, it has been a Governing Board policy, as established in Rules 1401 – New Source Review of Toxic Air Contaminants and 1402 – Control of Toxic Air Contaminants from Existing Sources, for the assessment of public health risk to be conducted via guidelines established by OEHHA. Under AB2588, the SCAQMD is required to follow OEHHA guidelines for health risk assessments, H&S §44360(b)(2). In April 2015, OEHHA finalized updates to its guidelines for determination of risk. The guidelines include an update to how risk is calculated. Specifically, the guidelines now include age sensitivity factors, updated breathing rates and the number of years spent at home or at the workplace. The result is a net cancer risk increase for residential receptors of approximately three times the prior calculated levels. In the case of hexavalent chromium, due to the multi-pathway exposure, the risk increases by a factor of 3.87. Based on the revised guidelines, fence-line Cr^{+6} levels for a 100-in-a-million cancer risk would be 0.181 ng/m^3 . The Basin-average Cr^{+6} ambient monitoring concentration based on MATES IV is 0.056 ng/m^3 . Staff's proposal to address the updated guidelines and to update and refine the Cr^{+6} background calculation pertaining to Rule 1156 is described herein.

E. Public Process

In addition to the working group meetings in 2011 and 2012, staff also met with representatives of CPCC and RC beginning in January 2015 to solicit comments on the proposed amendment concepts. Comments received were incorporated into development of the April version of proposed amendments, as appropriate.

Staff conducted a working group meeting on April 7, 2015 to present detailed proposed amendments. Draft rule language was released to the working group for their review and comments prior to the SSC meeting on April 17th. Staff conducted a public consultation meeting on April 22nd near a cement facility for ease of community participation, to solicit input on the April version of proposed rule, including dust control measures. Since then, staff also met with RC and CPCC on two separate occasions in May regarding the proposed more stringent threshold and determination of the actual emission sources to be addressed if there is an exceedance.

Staff conducted a public workshop in June 2015 to seek additional input on the proposed Cr^{+6} ambient air monitoring fence-line threshold, the implementation schedule for new Cr^{+6} standard, compliance requirements in

the event the Cr⁺⁶ levels are exceeded, and the criteria to validate duplicate PM10 source tests at low concentrations (significantly less than the emission limit of 0.01 grain/dscf). Following the public workshop, staff conducted a site visit to learn more about the current operational status at one facility. Staff also met with both facilities on two occasions in July to address issues regarding the new Cr⁺⁶ ambient air monitoring fence-line threshold and background, and the continued monitoring requirement after facility closure.

In response to industry's request, the Public Hearing was rescheduled to September 2015 to allow additional time for stakeholders to provide comments. At the September 4, 2105 Governing Board meeting, the Board directed staff to bring this proposed amended rule back to the Stationary Source Committee before a public hearing is held. An update was provided to the Stationary Source Committee on September 18, 2015. The proposal has been revised as noted in the preface to this report and in updates to Appendix A – Response to Comments, and the public hearing is scheduled for November 6, 2015.

III. PROPOSED AMENDMENTS

A. *Reduced Monitoring and Facility Closure*

To address potential air quality impacts from the closure of cement manufacturing facilities and to ensure long-term air quality and protection, staff updated and clarified rule applicability after facility closure.

To qualify for facility closure, all cement manufacturing operations/equipment, including but not limited to blending silo, kiln, clinker cooler, and clinker grinding/milling must be completely ceased, and all related permits for operation must be surrendered or expired and not reinstatable.

To streamline Cr⁺⁶ ambient monitoring at existing cement manufacturing facilities, staff proposes conditions for reducing the number of Cr⁺⁶ ambient monitoring stations. Upon 12 consecutive months of compliance with the most stringent hexavalent chromium concentration limit in Table 1 of the Rule (fenceline threshold limit of 0.2 ng/m³, excluding background), the owner(s)/operator(s) may submit for approval an amended Compliance Monitoring Plan to operate a minimum of one monitoring station for the entire property, predominantly downwind from the emission source(s). The Executive Officer will either approve or disapprove the amended plan within 60 days from receipt, and such decision is appealable to the Hearing Board under rule 216 – Appeals and Rule 221 - Plans. While operating a reduced number of monitoring stations under an amended Compliance Monitoring Plan, the owner/operator shall revert back to a 1- in- 3 day ambient monitoring sampling schedule within 14 calendar days if the applicable threshold is exceeded. If the exceedances occur three or more times in any consecutive 12 calendar months, the owner/operator shall submit for approval an amended

Compliance Monitoring Plan to operate a minimum of three monitoring stations for the entire property consistent with paragraph (d)(10) within 30 calendar days of being notified by the Executive Officer.

To ensure no degradation to air quality after a facility closure, the proposed amendments require owner/operator of the property on which a cement manufacturing facility has operated on or after November 4, 2005, to continue their Cr⁺⁶ ambient monitoring in accordance with the most recent monitoring plan, schedule, and applicable threshold. The Cr⁺⁶ ambient monitoring may cease upon meeting both of the following criteria:

- (1) Completed implementation of an approved reclamation plan by the lead agency consistent with the Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796); or completed clean-up/rehabilitation of the property in accordance with an approved Compliance Plan for Post Closure Activities; and
- (2) Subsequent three months of demonstrated compliance with the applicable Cr⁺⁶ thresholds following completion of (1) above.

Staff also proposes a provision requiring the submittal of a Compliance Plan for Post Closure Activities if there is no reclamation plan approved by lead agencies (e.g., city, county, or the Department of Toxic Substances Control, as applicable) in place. The Compliance Plan for Post Closure Activities and appropriate fees must be submitted to the SCAQMD within 90 days from the facility notification of its permanent facility closure. The Executive Officer will either approve or disapprove the plan within 60 days from receipt, and such decision is appealable to the Hearing Board under rule 216 – Appeals and Rule 221 - Plans. At a minimum, the plan shall include contact information for persons responsible for preparation, submittal and implementation of the plan, as well as the following:

- (1) Detailed descriptions of the control measures from Rule 403 and other SCAQMD's rules, as well as the permanent stabilization (i.e., paving and/or re-vegetation) to be implemented.
- (2) A site-specific assessment using soil sampling, historic activities, or other means, to identify areas that are not potentially contaminated. If approved, such areas will be excluded from the reclamation/cleanup/rehabilitation activities.
- (3) A description of the control measures to be implemented to ensure compliance with the applicable Cr⁺⁶ ambient threshold after facility closure, including measures to address the dismantling or demolition of cement manufacturing or related equipment, the removal of cementitious dust other material build-up, or any remediation-related activities.
- (4) A description of additional control measures to be implemented in the event of Cr⁺⁶ ambient threshold exceedance.

- (5) Provisions for transferring responsibility for continued hexavalent chromium monitoring to a new owner(s), including by current and subsequent property owners until the above are achieved.

In addition, the owner/operator of the property must temporarily suspend all activities in the event of Cr⁺⁶ ambient threshold exceedance until the control measures in the approved Compliance Plan for Post Closure Activities are implemented.

The proposed amendments also include provisions for Cr⁺⁶ ambient monitoring relocation and monitoring calibration and maintenance requirement. In the event of any relocation of ambient Cr⁺⁶ monitor(s), the owner(s)/operator(s) must notify the SCAQMD in writing and obtain its approval prior to such relocation. The Executive Officer will approve or disapprove the request within 14 days of receipt. The owner(s)/operator(s) must move the monitor(s) back to the original location(s) or other approved locations(s) within the timeframe specified by the SCAQMD. The owner(s)/operator(s) is also required to provide the SCAQMD with monitoring calibration and maintenance upon request. In addition, the proposal explicitly states that certain Executive Officer decisions regarding plan approvals/disapprovals can be appealed to the Hearing Board under Rule 216 – Appeals and Rule 221 – Plans.

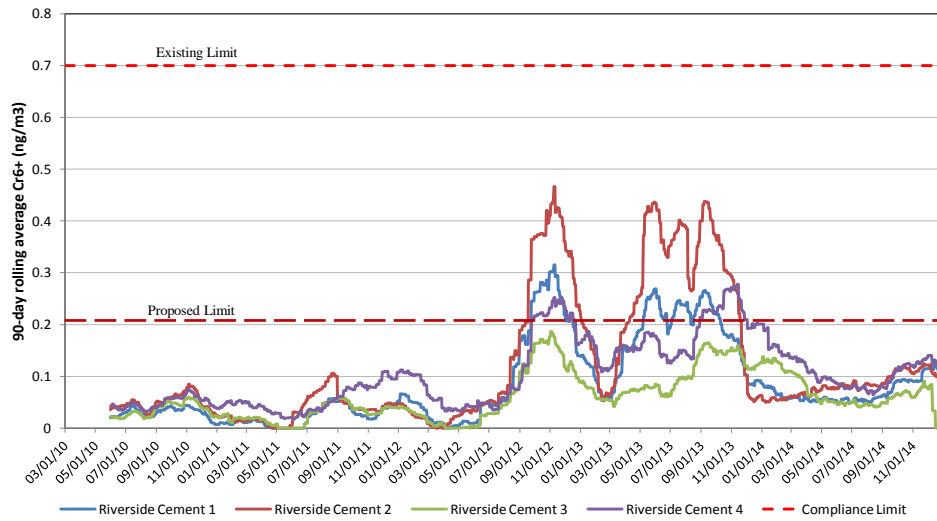
B. *Cement Facilities and New OEHHA Guidance*

As previously discussed, under the 2015 update to the OEHHA’s risk assessment guidelines, the fence-line Cr⁺⁶ ambient monitoring threshold is proposed to be lowered to 0.20 ng/m³ (excluding background). This maintains the 100 in a million cancer risk at the facility fence line.

Staff also updates the background level concentration for determining compliance with the fence-line risk. Specifically, the MATES IV Basin average background risk is 0.056 ng/m³. However, staff proposes two different MATES IV sites (Fontana and Rubdidoux) Cr⁺⁶ background levels applicable to the proximity of RC and CPCC for two different sampling schedules. Using the 90th percentile data, the 30-day rolling average Cr⁺⁶ background concentration for a 1-in-3 sampling schedule would be 0.065 ng/m³, and the 90-day rolling average Cr⁺⁶ background concentration for a 1-in-6 sampling schedule would be 0.056 ng/m³. These background levels will be used for Rule 1156 compliance purposes. Therefore, the proposed new effective limits would be 0.265 ng/m³ and 0.256 ng/m³, respectively.

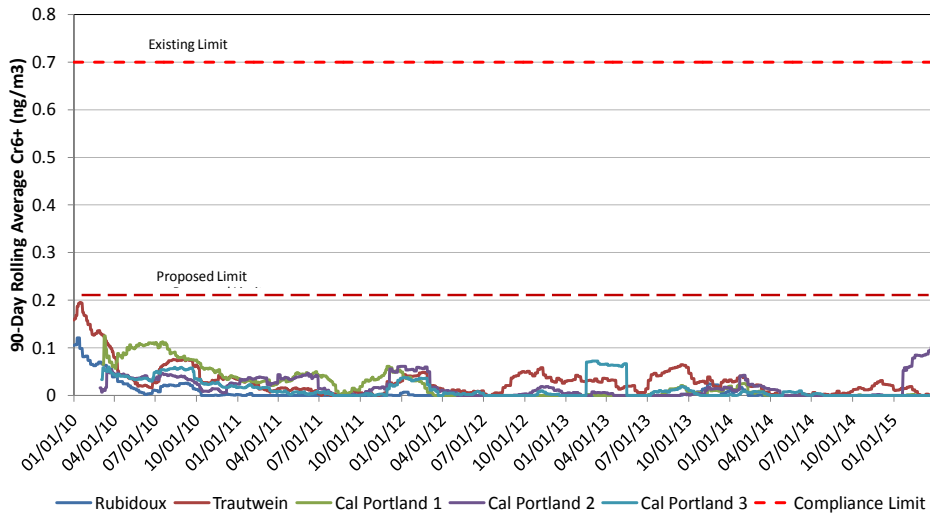
Figures 5 and 6, respectively, depict RC and CPCC’s 90-day rolling average of Cr⁺⁶ ambient air concentrations in relation to the newly proposed 0.20 ng/m³ threshold, less the background concentration of 0.056 ng/m³

Figure 5 - 90-Day Rolling Average minus Background – Riverside Cement¹



¹ A background level of 0.056 ng/m³ (MATES IV Study; 90th percentile Cr⁶⁺ concentration in Fontana and Rubidoux) is utilized for the rolling average compliance calculations. The rolling average is reported as a value of zero when the rolling average is less than or equal to zero.

Figure 6 - 90-Day Rolling Average minus Background – Cal Portland Cement¹



¹ A background level of 0.056 ng/m³ (MATES IV Study; 90th percentile Cr⁶⁺ concentration in Fontana and Rubidoux) is utilized for the rolling average compliance calculations. The rolling average is reported as a value of zero when the rolling average is less than or equal to zero.

As with Figures 3 and 4, the 90-day rolling averages of Cr⁶⁺ from these figures are calculated based on the 1-in-6-day sampling for data measured after April 2011 when both facilities converted from a 1-in-3-day sampling schedules to a 1-in-6-day sampling. The 90-day rolling averages prior to April 2011 are

calculated based on the 1-in-3-day measurements. The rolling average is reported as a zero value if it is less than or equal to zero.

For RC, the peak of the 90-day rolling average of Cr⁺⁶ ambient air concentrations collected at each of their four monitoring stations were occasionally above the newly proposed 0.20 ng/m³. According to RC, higher than usual Cr⁺⁶ levels occurred when the facility restarted their finishing mills at less than full capacity. However, since that time, RC has operated below the threshold. Staff will continue working with RC on the potential impact of the new fence-line threshold as production increases to near capacity.

For CPCC, the peak of the 90-day rolling average of Cr⁺⁶ ambient air concentrations collected at each of their four monitoring stations is below the proposed 0.20 ng/m³. Even using the new, lower background level and threshold, CPCC's past monitoring has been consistently lower than the proposed limit.

To address industry's concern, staff proposes an implementation schedule for the updated Cr⁺⁶ threshold and a provision that wind and other relevant data will be examined to determine whether the cement facility is the actual source of any Cr⁺⁶ exceedances. As proposed, effective September 5, 2016, the Cr⁺⁶ concentrations from a 30-day or 90-day rolling average at each monitoring station shall not exceed 0.20 ng/m³ (excluding background). Starting September 5, 2016, the Cr⁺⁶ threshold of 0.20 ng/m³ and background concentrations of 0.065 ng/m³ and 0.056 ng/m³ would be utilized for the rolling average compliance calculations. The current Cr⁺⁶ threshold of 0.70 ng/m³ (excluding background of 0.16 ng/m³) would still be operative prior to this date.

The proposal includes a provision that an owner/operator of a cement manufacturing facility may provide, within 14 calendar days of any Cr⁺⁶ threshold exceedance under the current or the new 0.20 limit, supportive information to demonstrate that the primary cause(s) of the exceedance is not attributed to its cement manufacturing facility. The information to be evaluated shall include:

- (1) Date and time of the exceedance;
- (2) Location of the monitor where exceedance was measured;
- (3) Previous 90-day data including the Cr⁺⁶ ambient air concentrations from facility's monitors and the dates of the measurements;
- (4) Wind direction(s) during the timeframe of the exceedance;
- (5) Description of the alleged primary cause(s) and source(s) of the exceedance, including timeframe(s) and location(s); and
- (6) Other evidence, such as other monitoring data, photographs, or video, demonstrating that the primary cause(s) of the exceedance is not attributed to the facility's operations or premises.

Per this provision, a written determination from the SCAQMD must be made to the owner/operator within 30 calendar days of receiving the above information.

The proposed amendments also require owner/operator of a cement manufacturing facility to revert back to the more stringent sampling schedule within 14 days of being notified by the Executive Officer of the Cr⁺⁶ exceedance of the applicable Cr⁺⁶ limit.

The proposed amendments also require the owner(s)/operator(s) to submit for approval a Compliance Plan for any confirmed Cr⁺⁶ exceedance of the new threshold of 0.20 ng/m³ occurring prior to September 5, 2018, but after September 5, 2016. A failure to obtain an approved Compliance Plan will be a violation of Rule 1156. The Compliance Plan and appropriate fees must be submitted within 60 days of SCAQMD's notice and must include the following in addition to basic contact information: (1) a description of the activities, including a site location map; (2) a listing of all potential sources of fugitive dust emissions within the property line; (3) a description of the implementation schedule and frequency of all applicable dust control measures listed in Rule 403 – Fugitive Dust; and (4) a detailed description of additional feasible control and/or stabilization measures to be implemented, the implementation date(s), application frequency, and anticipated reductions, as well as the equipment, process, or areas that will be affected by the control.

The requirement for a Compliance Plan will not apply to facilities that have been required to submit a Health Risk Assessment under Rule 1402 – Control of Toxic Air Contaminants for Existing Sources on or after January 1, 2015 as it is expected that compliance with Rule 1402 will adequately prevent risks from exceeding the action level.

To ensure public health protection, staff also proposes that any Cr⁺⁶ exceedance of the new threshold of 0.20 ng/m³ occurring on or after September 5, 2018 will be a violation of Rule 1156, even if they are subject to Rule 1402.

C. Other Proposed Amendments

To address industry's concern regarding unnecessary cost to comply with current precision requirements for duplicate source tests with significantly lower PM₁₀ concentrations than the emission limit of 0.01 grain/dscf, staff also proposes to revise the criteria to validate duplicate samples. Specifically, PM₁₀ concentrations of both samples must be below 0.002 grain/dscf; or the difference between two samples must be less than 35% of their average and the difference between the sample catches (normalized to the average sampling volume) must be less than 3.5 milligrams.

IV. CALIFORNIA ENVIRONMENTAL QUALITY ACT

SCAQMD staff has reviewed the proposed project pursuant to California Environmental Quality Act (CEQA) Guidelines §15002 (k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA. SCAQMD staff has determined that the proposed amendments to Rule 1156 are a discretionary action by a public agency, which has potential for resulting in direct or indirect changes to the environment and, therefore, is considered a “project” as defined by CEQA. SCAQMD staff’s review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. Therefore, pursuant to CEQA Guidelines §15252 and 15126.6(f), no alternatives are proposed to avoid or reduce any significant effects because there are no significant adverse impacts, and pursuant to CEQA Guidelines §15126.4(a)(3), mitigation measures are not required for effects not found to be significant. SCAQMD staff prepared a Draft Environmental Assessment (EA) to address the potential adverse environmental impacts associated with the proposed project which was released for a 30-day public review beginning on July 21 and ending on August 19, 2015. No comment letters on the Draft EA were received during the public comment period. Minor modifications were made to the proposed amended rule subsequent to release of the Draft EA for public review. SCAQMD staff has reviewed these minor rule modifications and concluded that they do not cause any CEQA impacts to be substantially worse or change any conclusions reached in the Draft EA. By analyzing the more stringent requirements of the previous version of the proposed amended rule, the Draft EA evaluated a “worst-case” impact scenario. Therefore, any potential adverse impacts from the currently proposed project are expected to be less than the potential adverse impacts evaluated in the Draft EA. As a result, these minor revisions do not require recirculation of the CEQA document pursuant to CEQA Guidelines §15088.5.

V. SOCIOECONOMIC ASSESSMENT

PAR 1156 would, among other changes, establish a more stringent fence-line Cr^{+6} ambient monitoring threshold, effective September 5, 2016. The amendments would also reduce the required monitoring effort (i.e., number of monitors) by the affected facilities, provided that monitors consistently demonstrate ambient concentrations below the threshold as specified in the proposed amendments. Additionally, the proposed amendments to Rule 1156 also include facility closure provisions.

A. Affected Facilities and Industries

The proposed amendments would affect two cement manufacturing facilities [North American Industrial Classification System (NAICS) 327310]. They are located, one each, in Riverside and San Bernardino counties respectively. According to the Dun and Bradstreet database acquired in January 2015, neither facility would be classified as a small business under the Federal Small Business Administration definition.

B. Compliance Costs

For ongoing cement manufacturing operations at a facility, continued compliance with the fence-line threshold for 12 months post adoption would allow the facility to reduce the number of ambient monitors to one in the principally downwind area. The ability to reduce the number of monitoring stations after meeting all criteria would potentially result in cost savings due to reduced spending on sampling and analysis. The estimated cost-saving would amount to approximately \$112,500 per year for one facility and \$30,500 per year for the other.¹ However, if applicable thresholds are exceeded, full or partial of these cost-saving would be forfeited since the owner/operator is required to revert back to a 1- in- 3 day ambient monitoring sampling while operating a reduced number of monitoring stations. If the exceedances occur three or more times in any consecutive 12 calendar months, the owner/operator is also required to submit for approval an amended Compliance Monitoring Plan to operate a minimum of three monitoring stations. The amendment fees would be approximately \$1,925, which includes filing and plan evaluation fees.

It is possible that one of the two affected facilities may not, based on previous monitoring data, be able to consistently comply with the more stringent fence-line Cr⁺⁶ ambient monitoring threshold of 0.20 ng/m³ without implementing additional control measures. As a consequence, this facility may need to submit a Compliance Plan, increase housekeeping measures, implement additional dust stabilization, and worst case, install control equipment. A Compliance Plan would not be necessary if the facility has an approved or is currently required to submit for approval a Health Risk Assessment pursuant to Rule 1402. Depending on the risks estimated in the Health Risk Assessment, the facility may need to develop and implement a Risk Reduction Plan. The actions taken are likely similar under a Compliance Plan or a Risk Reduction Plan. Compliance costs associated with Compliance Plan submission, if applicable, would include a one-time cost of \$1,925, which includes filing and plan evaluation fees. These fees also apply to the Compliance Plan for Post Closure Activities. The potential cost of purchasing additional chemical stabilizers would amount to approximately \$243,000 annually based on the potential need of two additional applications per year to approximately 50 acres,

¹ The cost-saving at the first facility was based on its own annual monitoring cost estimate recently submitted to the SCAQMD for running a one in six-day sampling schedule. SCAQMD staff divided the estimate of \$150,000 by four, the number of monitors currently in operation at the facility, to arrive at the cost per monitor, or the cost-saving per retired monitor. The other facility currently operates three monitors and incurred a lower monitoring cost because it used the SCAQMD laboratory, which charged a lower fee, for sampling analysis. Staff derived the potential cost-saving for this facility based on the SCAQMD laboratory billing record over a one-year period between April 1, 2015 and March 31, 2016 of \$45,800 and the three monitors that they operate.

cumulatively, of facility property.² In addition, the purchase and installation of one additional steel partitioning wall, 125 feet in length and 75 feet in height, within an existing building near a cement packaging operation may be necessary to contain dust within the building, as well as four PVC curtain doors, each of 25 feet in length and 35 feet in height, to prevent dust from exiting.³ The capital cost of the one steel partitioning wall would amount to approximately \$172,000, based on the unit cost assumption of \$18.30/ft². The capital cost of the four PVC curtain doors would total approximately \$14,700, based on the unit cost assumption of \$4.50/ft². (Note that all costs are expressed in 2015 dollars.)

Relative to facility closure, the proposed amendments would provide additional relief from monitoring through continued compliance with the fence-line threshold requirements until three months after site clean-up or remediation. The newly included facility closure provision would potentially reduce the required number of Cr⁺⁶ monitors following facility closure to one, principally downwind, if the reduction of monitors has not yet occurred while a facility is in operation. According to staff estimates, the aggregate cost-savings from reduced sampling and analysis for the owner(s)/operator(s) of both facilities undergoing closure would be approximately \$9,400 per month at one facility and \$2,500 per month at the other.⁴ Relative to the amendments regarding duplicative source tests, there is a potential cost savings in that unnecessary duplicate source testing will be avoided in the future while accomplishing the same goal as the current requirement.

The Executive Officer's decision can be appealed to the Hearing Board. A minimum filing fee of \$1,741 is required.

When the annual compliance cost is less than one million dollars, the Regional Economic Impact Model (REMI) is not used to analyze impacts on jobs and other socioeconomic impacts because the impact results would be very small and would fall within the noise of the model. A major portion of the socioeconomic report covers the regional jobs and other socioeconomic impacts generated from the REMI model. As such, when the REMI model is not run, the socioeconomic assessment is included in the staff report scenario.

² The unit cost of chemical stabilizer application was based on a 2008 estimate of 5 cents/ft². The unit cost was inflated to 2015 dollars using the Marshall and Swift Indices.

³ Notice that the erection of the partitioning wall would be a worst case scenario. The facility may be able to achieve emission reductions through less costly compliance options, such as additional housekeeping measures, closing off doorways and other exit points, etc.

⁴ The cost-saving estimates were based on the estimated cost-saving of \$112,500 per year at one facility and \$30,500 at the other, for reducing the number of Cr+6 ambient monitors to one. (Annual cost-saving ÷ 12 months = monthly cost-saving.)

VI. DRAFT FINDINGS

Health and Safety Code Section 40727 requires the SCAQMD to adopt written findings of necessity, authority, clarity, consistency, non-duplication and reference.

Necessity

A need exists to amend Rule 1156 to allow flexibility to the facilities given a continuous demonstration of compliance and to conditionally sunset Cr⁺⁶ monitoring after facility closure. A need also exists to update the ambient Cr⁺⁶ threshold based on updated OEHHA's risk assessment guidelines.

Authority

The SCAQMD Board obtains its authority to adopt, amend, or repeal rules and regulations from California Health & Safety Code Sections 39002, 40000, 40001, 40440, 40702, and 40725 through 40728, and 41700, inclusive.

Clarity

The proposed amended rule has been written or displayed so that its meaning can be easily understood by persons directly affected by it.

Consistency

The proposed amended rule is in harmony with and not in conflict with or contrary to, existing statutes, court decisions or state or federal regulations.

Duplication

The proposed amended rule does not impose the same requirements as any state or federal regulations. The amendment is necessary and proper to execute the powers and duties granted to, and imposed upon, SCAQMD.

Reference

By adopting the proposed amended rule, the SCAQMD Board will be implementing, interpreting, and making specific the provisions of the California Health & Safety Code Sections 40000 (authority over non-vehicular sources), 40001 (rules to achieve ambient air quality standards), and 41700 (public nuisance).

Comparative Analysis

Health and Safety Code §§40727.2 requires a written analysis comparing a proposed rule or amendment with existing federal, State and District regulations. Health and Safety Code §§40727.2, subsection (c) and (d) further require the analysis to review averaging provisions, operating parameters, work practice requirements, and monitoring, reporting and recordkeeping requirements associated with existing applicable rules and proposed regulations. A comparative analysis for the adoption of Rule 1156 in 2005 was conducted and is included in Appendix B. The analysis was updated in conjunction with the Rule 1156 amendments in 2009 and is reflected in italics. Relative to the 2015 proposal, the comparative analysis in Appendix B has been further updated and the provisions are shown in bold and underline format.

Analysis of Alternative Control Measures

Health and Safety Code Section 40440.5, subsection (c)(3) requires an analysis of alternative control measures if the proposed rule will significantly affect air quality or emissions limitations. Current proposed amendments to Rule 1156 are the result of a Governing Board directive relative to the previous 2009 amendments and do not significantly affect air quality or emissions limitations. The fence-line threshold of 0.2 ng/ m³ is reflective of 100 in one million cancer risk based on OEHHA's updated guidelines as discussed herein. Although the limit could be set higher, the facility would likely need to reach this level or lower anyway pursuant to Rule 1402, so no realistic alternatives are available.

VII. CONCLUSION

The proposed amendments address the Governing Board directive, as stated in the 2009 adoption Resolution, to re-assess the frequency of, or the need for, continued monitoring after five years of data or facility closure. The proposed amendments provide potential relief from monitoring through continued compliance with the Cr⁺⁶ fence-line threshold requirements. The proposals also address facility closure with a sunset of Cr⁺⁶ monitoring three months after completion of site clean-up/remediation. The proposed amendments would lower the ambient hexavalent chromium fence-line levels to reflect changes made by OEHHA to the risk assessment methodology.

APPENDIX A
RESPONSE TO COMMENTS

PAR 1156 Comments/Responses

The following are staff responses to comments received from April 7, 2015 to September 18, 2015.

SCAQMD's Authority

Comment#1: SCAQMD lacks legal authority to impose obligations on a “non-source”.

Response #1: Air Districts are responsible for all sources of air pollution, except motor vehicles (Health & Safety Code Section 40000). While the statutes do not define the term “source”, and neither do district rules, the California Air Resources Board glossary defines “source” as any place or object from which air pollutants are released. It does not require any human activity to meet the definition. Moreover, the Air Resources Board definition of “area sources” includes “natural sources” which do not implicate any human activity (www.arb.ca.gov/html/gloss.htm). But in any event, the sources which SCAQMD seeks to regulate in PAR 1156 clearly have been affected by human activity (i.e., cement manufacturing), which causes the dirt or dust on the property to contain higher levels of hexavalent chromium (Cr⁺⁶). SCAQMD staff submits that property on which dirt or dust containing hexavalent chromium is located constitutes a “source” of air pollution because the dirt or dust may be picked up by the wind and blown outside the property lines where people can breathe it.

The California Court of Appeal upheld SCAQMD’s interpretation of “source” to include natural gas in a pipeline which ultimately would be combusted and create NOx emissions, even though there were no emissions from the gas as it sat in the pipeline. The court noted that it must liberally construe the terms ~~at-in~~ issue for the protection of public health, and the same principle would apply here. *Southern California Gas Co. v. South Coast Air Quality Management District* (2012) 200 Cal. App. 4th 251.

See also Response #2 below regarding SCAQMD’s authority to adopt preemptive measures to prevent air pollution.

Comment #2: SCAQMD cannot regulate a person such as a subsequent landowner based on emissions which they did not generate, have no knowledge of or potentially cannot control.

Response #2: The District has authority to pass rules and regulations to prevent “air pollution episodes which, at intervals, cause discomfort or health risks to, or damage to the property of, a significant number of persons or class of persons.” H&S 40001(b). “By using this language, the Legislature clearly intended to vest AQMD with the authority to adopt preemptive measures designed to prevent air pollution episodes...” (*Ultramar, Inc.*

v. South Coast Air Quality Management Dist. (1993) 17 Cal.App.4th 689, 707.) SCAQMD exercised such authority in adopting Rule 403 – Fugitive Dust, which applies regardless of who the owner of the property is. Here the property will continue to be a potential source of hexavalent chromium emissions after facility closure, regardless of who the owner is. The new owner of a post closure source has control over the property and is thus in the best position to minimize hexavalent chromium emissions from the property. (See *Preston v. Goldman* 42 Cal.3d 108, 125-126 (ownership and control are fundamental requirements for ascribing liability for conditions on the property)).

Notably, SCAQMD only proposes to require an owner of a property to monitor for hexavalent chromium (Cr⁺⁶) emissions and comply with the appropriate Cr⁺⁶ fence-line thresholds and Compliance Plan, as applicable, during reclamation or site clean-up/rehabilitation and for 3 months following the completion of these activities. These are reasonable regulations. The commenter fails to explain why the new owner would have no knowledge of the emissions or have “no ability to control” the emissions.

Comment #3: SCAQMD is regulating future owners of unrelated activities based solely on emissions and conduct by a former industrial operator.

Response #3: This is not correct. The rule is based on the current risk of dangerous emissions even after the cement operation is closed and the property is sold to a new owner or owners. The rule has also been clarified so that the rule ceases to apply if certain conditions are met after facility closure, as stated in subdivision (h). After facility closure, ambient monitoring in accordance with the most recent monitoring plan, schedule, and applicable threshold shall continue until both (1) and (2) are met:

- (1) Completed implementation of a reclamation plan approval by the lead agency; or completed clean-up/rehabilitation of the property in accordance with the approved Compliance Plan for Post Closure Activities; and
- (2) Subsequent three months of demonstrated compliance with the applicable Cr⁺⁶ thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

In addition, a site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

Comment #4: SCAQMD is requiring that a former permittee have perpetual access to land it has sold and that the rule requirements may have to be recorded to provide notice to future land owners and operators.

Response #4: The rule requirements are intended to apply to the current owner or operator, who must comply with the terms of the rule until the requirements are met. The rule is not intended to impose an obligation on a former permittee to have perpetual access to land it has sold. The rule has also been clarified so that the rule ceases to apply if certain conditions are met after facility closure, as stated in subdivision (h). After facility closure, ambient monitoring in accordance with the most recent monitoring plan, schedule, and applicable threshold shall continue until both (1) and (2) are met:

- (1) Completed implementation of a reclamation plan approved by the lead agency; or completed clean-up/rehabilitation of the property in accordance with the approved Compliance Plan for Post Closure Activities; and
- (2) Subsequent three months of demonstrated compliance with the applicable Cr⁺⁶ thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

In addition, a site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

Regarding recordation, nothing in this rule requires a current owner or operator to record any notice of the rule requirements on the property deed. Health & Safety Code Section 25359.7 already requires an owner of non-residential real property who knows or has reasonable cause to believe that a release of hazardous substance is located on the property to provide written notice of such condition to a buyer, lessee, or renter of the property prior to the sale, lease or rental of the property. As such, any future owner or operator who conducts due diligence will have notice of the rule requirements. As recommended, the specific provisions applicable only to the operations relating to the manufacture of cement are specifically called out. Specifically, those provisions of the rule via subdivision headings have the phrase “at a cement manufacturing facility” added.

Comment #5: As a part of their comment letters, both facilities provided information regarding actions required by other agencies relative to post facility closure and actions required before repurposing of the property for other uses. These include a reclamation plan by the lead agency regarding mining and other city/county over-site requirements regarding demolition and site clean-up of the property prior to reuse, as well as the CEQA process for future land use activities.

Response #5: As noted in the prior comment relative to subdivision (h), information received from the facilities contributed to the modified rule language regarding facility closure and sunset of the rule provisions once clean-up and stabilization have occurred, as well as three months of compliant monitoring data after the activities have been completed.

Comment #6: Open-ended monitoring is well beyond SCAQMD authority especially once a facility is no longer an operating cement plant.

Response #6: See Response #1. Nevertheless, the rule has been clarified so that the rule ceases to apply if certain conditions are met after facility closure, as stated in subdivision (h).

Comment #7: SCAQMD has no jurisdiction over land use issues and other agencies have jurisdiction over land use and development of the site.

Response #7: The proposed rule requirements are specifically designed to protect public health and are not land use requirements. The proposed rule does not prohibit any kind of land use or dictate how the site must be developed. The rule has been clarified so that the rule ceases to apply once reclamation or site clean-up is completed and subsequent three months of compliance with the applicable hexavalent chrome threshold, as provided in subdivision (h) of the rule.

Hexavalent Chromium Monitoring

Comment #1: Monitoring after closure is unnecessary because SCAQMD maintains its regional monitoring network.

Response #1: Regional monitoring does not detect localized levels of air toxics which are the concern here.

Comment #2: There is no need for SCAQMD to have any post closure requirements as other agencies have oversight. Brownfield redevelopment or ordinary entitlement and development process (i.e., CEQA) is sufficient.

Response #2: SCAQMD is the sole and exclusive local agency responsible for comprehensive air pollution control in the District (Health and Safety Code Section 40412). SCAQMD may comment on a CEQA document, but a lead agency is not required to adopt SCAQMD suggestions or require a property owner to implement mitigation measures to minimize hexavalent chromium emissions. PAR 1156 includes an exit path after completion of an approved reclamation or clean-up plan.

Comment #3: Rule 403 would be adequate to prevent dust from crossing the facility property line, so monitoring post closure is not needed.

Response #3: Rule 403 addresses fugitive dust, so it is applicable, but the toxic content of the dust is not addressed. Rule 403 requirements and limits for PM10 could allow dust with hexavalent chromium that would equate to very high increased cancer risk. Additional requirements are needed for hexavalent chromium to protect public health until sites are stabilized.

Comment #4: PAR 1156 requires access for siting of SCAQMD monitoring equipment on the former cement plant property. This is a taking without due process of law.

Response #4: SCAQMD has removed this provision.

Comment #5: Each subsequent owner on the property would have to have 3 monitors, so if there were 10 owners, 30 monitors would be necessary.

Response #5: That is not the intent of the rule. One to three monitors would be required on the entire property, depending on emission levels. Provisions in the rule are already in place if there is a need to move monitors. In addition, a provision has been added to clarify requirements for transferring responsibility for continued hexavalent chromium monitoring to a new owner(s) until specific conditions are achieved under a completed reclamation plan or Compliance Plan for Post Facility Closure Activities. The proposed rule language also includes provisions to exclude portions of the property if they are determined not to contain hexavalent chromium in the soil. The proposed rule requires three months of monitoring post clean-up. This is a minimal cost and is important for public health protection.

Comment #6: The rule does not have an end date.

Response #6: PAR 1156 requires only three months post clean-up monitoring. Most SCAQMD rules have no “end date”, but PAR 1156 has -2 exit provisions. Those are: completed reclamation plan; or finished clean-up in accordance with the Compliance Plan for Post Closure Activities.

New Cr⁺⁶ Fence-line Threshold and Background

Comment #1: The commenter’s facility may not be able to comply with the new 0.2 ng/um³ standard. If the facility is forced to close its operation, that “can” constitute an unlawful taking.

Response #1: The commenter fails to explain why they cannot meet the new standard. Just because there have been exceedances of this level in the past does not mean the facility cannot install additional precautionary measures to achieve this standard. This rule will not cause facilities closure, but if the facility is forced to close its cement operations, normally that does not constitute a “taking” since the rule would not deprive the facility of all reasonable use of the property, and there is a reasonable health-based rationale for the fence-line limit. The rule allows roughly three years before the new limit becomes a violation of the rule, which should provide time for the facility to implement any necessary measures to control emissions.

If the facility can demonstrate that it could not meet the proposed new limit, staff can assist with evaluating alternative control measures feasible to reduce Cr⁺⁶ emissions. However, with the newly proposed Cr⁺⁶ background levels derived from the 90 percentile data for the Rubidoux/Fontana area (a 30-day rolling average of 0.065 ng/m³ for the 1-in-3 sampling schedule and a 90-day rolling average of 0.056 ng/m³ for

the 1-in-6 sampling schedule), staff believes that the facility can comply with the new Cr⁺⁶ fence-line threshold, assuming that feasible control measures are taken.

Comment #2: SCAQMD should not modify the fence-line limit before CARB guidance documents have been approved.

Response #2: The revised fence-line limit merely applies OEHHA-approved methods to establishing an approximate equivalent to the 100 in a million risk which was the basis for the previous fence-line limit. Nothing in CARB's guidance document is inconsistent with this approach.

Comment #3: The proposed limit presents a risk of facility closure as the facility does not know how to reduce emissions if the fence-line threshold is exceeded in the future, which will cause adverse environmental as well as economic impacts.

Response #3: The facility is still responsible for emissions leaving the facility and is still subject to Rule 1402. The commenter has not presented any evidence from which to conclude that it cannot meet the newly-proposed limit, which provides equivalent health protection to the original limit. Options for further control may include limiting of exit points from buildings, additional dust suppression, or other measures. Any economic or environmental impacts of compliance methods, if identified to SCAQMD, will be analyzed in the CEQA and socioeconomic assessments. The facility has reduced emissions in the past when ambient levels increased.

Comment #4: SCAQMD uses wrong background limit that does not accurately reflect the immediate area around the commenter's facility. In addition, if the standard for compliance is based on a 30-day or 90-day rolling average then the background should be based on a similar average.

Response #4: The previously proposed Cr⁺⁶ background level of 0.043 ng/m³ observed at Fontana and Rubidoux was the sub-regional annual average background applicable to the proximity of the two cement manufacturing facilities. However, SCAQMD staff concurs that two different Cr⁺⁶ background levels applicable to the proximity of RC and CPCC for two different sampling schedules is appropriate. Using the 90th percentile data, staff now proposes the 30-day rolling average Cr⁺⁶ background concentration for a 1-in-3 sampling schedule would be 0.065 ng/m³, and the 90-day rolling average Cr⁺⁶ background concentration for a 1-in-6 sampling schedule would be 0.056 ng/m³. These background levels will be used for Rule 1156 compliance purposes. Therefore, the proposed new effective limits would be 0.265 ng/m³ and 0.256 ng/m³, respectively.

SCAQMD staff does not believe that monitoring data from the immediate area around the facilities should be used to derive background because it is unduly influenced by facility emissions and not truly background.

Comment #5: At RC, the upwind monitor is higher than the calculated background.

Response #5: Shifting winds over 24 hours (diurnal flows) results in no ambient sampler as always being either upwind or downwind.

Comment #6: There are no residential receptors at the fence-line and the majority of receptors in the area is light industrial.

Response #6: There are residential properties across the street from one facility's property boundary.

Comment #7: Using a 70 year or 30 year exposure limits is a mismatched compliance standard compared to the monitoring data which is generated on a 90-day rolling average.

Response #7: These are two separate issues: an appropriate health-protective standard assuming the appropriate OEHHA approved exposure assumptions, and a proper measure of meeting that limit. To derive the limit, staff properly uses the OEHHA approved exposure assumptions, as is done for all other programs including permitting, CEQA, and AB2588. To decide whether the facility is meeting that limit, staff use the monitoring data which, in this case, is the 90-day rolling average, since both facilities are in their 1-in-6 day sampling schedule pursuant to existing rule requirements.

Comment #8: RC staff was not sent requested information and cannot check "the math" for background and fence-line limits.

Response #8: This is simply not true. Staff met with both facilities and explained in the staff report and in multiple meetings how background and the revised fence-line limit based on updated OEHHA guidance was determined. This included providing all MATES IV data and the calculation procedure for the fence-line limit. Staff responded to all requests and provided requested data, explanations and information.

Miscellaneous

Comment #1: The rule should be "void for vagueness" because a person cannot tell what provisions it must comply with under the sections that require compliance with other agency requirements and mitigations. Also a person may be faced with multiple agencies (i.e., DTSC, CA Water Board, and EPA) interpreting the same requirement differently.

Response #1: SCAQMD staff has removed the provisions requiring compliance with other agencies' rules and regulations, including CEQA requirements.

Comment #2: SCAQMD is improperly extending the rule to cover air toxics without CEQA review.

Response #2: The current rule version already aims for minimizing Cr⁺⁶ emissions, which is a toxic air contaminant. SCAQMD staff is revising the CEQA document for the proposed amendments to cover any impacts of lowering the hexavalent chromium monitoring threshold.

Comment #3: The rule is unclear as to which obligations apply to the current permittee and which requirements apply to future landowners. By imposing all obligations on all categories of “owners/operators” at the same time, the rule is vague and unworkable.

Response #3: SCAQMD staff has revised the language to clearly specify requirements for owner(s)/operator(s) of a current cement manufacturing facility and owner(s)/operator(s) of a property after facility closure.

Comment #4: There may be large laboratory errors in SCAQMD’s data and the data may not be able to be duplicated by independent third party labs.

Response #4: In a recent collaborative effort between the SCAQMD lab, both affected facilities, and one facility’s third party lab, it was found that there were no notable differences in the laboratory results when analyzing samples. Overall, the collocated samplers reproduced very well. There were only two blanks in this study, which showed the greatest variability. Efforts continue to evaluate monitoring itself to identify any potential discrepancies.

After the September 18, 2015 Stationary Source Committee meeting, staff contacted representatives of RC regarding further review of the data that RC presented at the meeting, specifically regarding the claim of a 24% bias in the monitoring and resultant conclusion that the fence-line threshold should be adjusted upwards accordingly. At a conference call with RC staff and their representatives from Exova Labs, the parties agreed that although a slight bias is observed in the data when comparing the side-by-side co-located monitoring results, the bias is nowhere near the 24% presented to the committee. In fact, the parties concluded that the differences between the two labs were probably within experimental error. Nonetheless, it was agreed that Exova and SCAQMD labs would exchange additional data to determine any reasons for the differences. The following items were reviewed:

1. How much of the difference is attributable to rounding errors?
SCAQMD agreed to provide additional decimal place values to help with this evaluation.
2. How much of the difference is due to differences in calibration curves?
SCAQMD uses a lower calibration standard of 50 parts per trillion (ppt) whereas Exova uses a standard of 200 ppt. This could bias the results where sampled concentrations are below

Exova's lower standard, whereas staff are able to bracket samples with a standard above and below the sample's concentration.

3. Does Exova force their calibration curve through zero? During the call it was determined that neither lab forces the lower end of the calibration curve through zero.

Comment #5: Staff fails to consider other possible sources of hexavalent chromium in the area such as other industrial activity and railroads.

Response#5: Other nearby industrial activities and railroads would contribute to the Cr⁺⁶ background levels observed at the Fontana-Rubidoux stations. Staff added a provision that owner/operator of a cement manufacturing facility may provide, within fourteen days of Cr⁺⁶ threshold exceedance, supportive information to demonstrate that the primary cause(s) of the exceedance is not attributed to its cement manufacturing facility.

Comment #6: The 1975 Mancuso manuscript which appears to be the basis for OEHHA's unit risk factor is obscure and cannot be found. The study must be made available.

Response #6: Staff also had difficulty obtaining this report but was able to get a copy on October 17 and provided a copy to the facility on October 18th. This document is one of many references utilized by OEHHA for the determination of the cancer risk potency factor. SCAQMD is required to use OEHHA guidelines in assessing public health risk (Health and Safety Code Section 44360(b)(2) and AB2588). The new fence-line limit merely reflects current OEHHA guidelines and maintains the current fence-line risk threshold of 100 in 1 million.

Comment #7: Cement manufacturing results in hexavalent chromium that is insoluble, and the Mancuso study showed that only soluble forms of hexavalent chromium are carcinogenic.

Response #7: The Mancuso study concluded that all forms of hexavalent chromium were associated with excess cancer deaths from the cohort of workers followed.

Comment #8: The OEHHA inhalation risk factor is based on a workplace cohort and may not be "directly applicable" here. Also, the Glaser study was on rats and it seems likely that a greater percent of particles were in the respirable range than would occur with hexavalent chromium originating from cement manufacturing. The rats may have been exposed to greater amounts of chromium because they groom themselves and one another and may have ingested chrome. The chrome from cement plants is likely contained within the "complex chemical and structural matrix" of cement and may be less available for contact with deep respiratory tract tissues.

Response #8: SCAQMD uses the inhalation risk factors and follows the risk assessment guidelines developed by OEHHA in estimating potential health effects of toxic air contaminants. These risk factors, as developed by OEHHA, are applicable to the population residing in the South Coast Air Basin. Health

and Safety Code 44360 (b)(2) requires SCAQMD to use OEHHA guidelines for assessing public health risk.

Comment #9: SCAQMD cannot make a finding of “necessity” simply by creating a new standard and then saying it is necessary to meet that standard. SCAQMD cannot make findings of authority or clarity, for reasons previously stated. SCAQMD cannot make findings of “consistency” and “non-duplication” because it may be using an approach different from that used for AB2588, and because other state and federal agencies can regulate chromium-impacted soils.

Response #9: SCAQMD is not setting a new standard. The standard is under 100 in a million at the fence-line, and the proposed amended rule merely sets a new limit to meet that same standard based on OEHHA’s recently-approved guidance. In any event, the standard is justified because SCAQMD has previously determined that 100 in a million is an unacceptable level of risk under the AB 2588 program, as specified in Rule 1402. Staff has previously responded to the “authority” issue. Staff has revised the rule to improve its clarity. The approach is not different from that used in AB2588. Finally, although other agencies may impose requirements to regulate chromium impacted soils, the commenter has not presented any argument that any such regulation preempts SCAQMD requirements which are specifically designed to protect public health from air pollution. Rule 403 may overlap with respect to some operations, but it does not require monitoring for hexavalent chromium, and does not focus on emissions of toxic air contaminants, which may require more rigorous control activities than those required under Rule 403.

Specific Rule Language Recommendations

SCAQMD staff has received proposed language submitted by each of the cement manufacturing facilities regarding the proposed amendments. Copy of the suggest language resides in the SCAQMD administrative record, and a summary of the suggested language and intent is summarized as follows:

Comment #1: Suggested modifications regarding the purpose and applicability of Rule 1156 as it pertains to facility closure.

Response #1: Staff modified the rule purpose and applicability to clarify that after facility closure, the rule is also applicable to owner(s)/operator(s) of the property on which the cement manufacturing facility has operated on or after November 4, 2005. Suggestions regarding what constitutes closure was not included in these subdivision, rather it has been clarified in the new definition of “facility closure” and the definition of “owner/operator.”

Comment #2: Suggested edits to the definitions of “facility closure” and “owner/operator” relative to the applicability after facility closure. Also,

suggested language regarding the approval of proposed modifications to existing compliance monitoring plans.

Response #2: Staff revised the definition of “facility closure” so that closure occurs when all on-site cement manufacturing operations have completely ceased and all equipment permits associated with those operations (i.e., blending silos, kilns, clinker cooler, and clinker grinding/milling) are surrendered, or have expired and no longer reinstatable.

The definition of “owner/operator” was revised to specify current owner/operator of the cement manufacturing facility, and upon facility closure, owner/operator of the property on which the cement manufacturing facility has operated on or after November 4, 2005.

Clause (d)(11)(A)(iii) was revised to allow for potential modification of current Compliance Monitoring Plan upon a subsequent 12 consecutive months of compliance with the appropriate Cr⁺⁶ thresholds (0.70 ng/m³ and/or 0.20 ng/m³, excluding background). If such request is approved, the owner/operator may reduce the number of monitoring stations to a minimum of one and place it downwind from the emission source(s). Rule language was also revised per comment so that upon any exceedance of Cr⁺⁶ thresholds, the owner/operator must, within 14 days of SCAQMD’s notice, revert back to the previously approved Compliance Monitoring Plan which includes a minimum of three (3) monitoring stations.

Comment #3: It should be made clear in the requirements and subsequent sections those provisions that apply only to cement manufacturing operations.

Response #3: SCAQMD staff concurs and the applicable subdivision titles in the rule have the added phrase “...at a cement manufacturing facility”.

Comment #4: Language clarifying that any exceedance of the fence-line hexavalent chromium threshold should be conclusively due to the facility.

Response #4: Staff added a provision that owner/operator of a cement manufacturing facility may provide, within 14 days of Cr⁺⁶ threshold exceedance, supportive information to demonstrate that the primary cause(s) of the exceedance is not attributed to its cement manufacturing facility.

Comment #5: Suggested additional language that would not require compliance for an exceedance of the fence-line threshold if due to circumstances deemed out of their control.

Response #5: Since a Compliance Plan detailing all feasible control measures being utilized or will be utilized is very essential to demonstrate increments of progress upon a Cr⁺⁶ exceedance, and the reversion to previous

monitoring schedule and requirement is crucial to ensure protection of public health, staff did not remove those provisions. Instead, staff added language so that owner/operator is only responsible for any confirmed Cr⁺⁶ exceedance caused by their facility's operations/activities.

Comment #6: Suggested modifications to language regarding facility closure as it pertains to a facility closure protocol relative to ownership and exit report that would sunset all rule requirements. Suggestions were also made as to limitation of the rule relative to concerns of duplication of other regulatory requirements and that additional monitoring of the site is unnecessary if proper fugitive dust controls under existing regulations are implemented.

Response #6: SCAQMD staff has taken the commenter's suggestions into consideration and has modified the provisions to create a point at which the rule would cease to apply to the owner/operator of a property where cement manufacturing had occurred. Specifically, Subdivision (h) was modified to require owner(s)/operator(s) of the property on which a cement manufacturing facility has operated on or after November 4, 2005, to continue their Cr⁺⁶ ambient monitoring in accordance with the most recent monitoring plan, schedule, and threshold until both (1) and (2) are met:

- (1) Completed implementation of an approved reclamation plan by the lead agency; or completed clean-up/rehabilitation of the property in accordance with the Compliance Plan for Post Closure Activities; or determination from the Executive Officer that no further action is required or the reclamation/clean-up/rehabilitation activities have been satisfactory completed; and
- (2) Subsequent three months of demonstrated compliance with the applicable Cr⁺⁶ thresholds after completion of reclamation/clean-up/rehabilitation or no further action determination.

In addition, a site-specific assessment may be submitted for approval so that areas that are not potentially contaminated can be excluded from the reclamation/clean-up/rehabilitation activities.

Comment #7: There is too much Executive Officer discretion in the rule for when a facility can stop monitoring and also for moving monitors. There is also no time frame for SCAQMD review.

Response #7: The rule has been changed to add language to address this concern. A Plan has been added with a plan approval process. The Executive Officer has 60 days to approve or deny a plan. If a plan is denied, the denial can be appealed to the SCAQMD Hearing Board under Rule 216 – Appeals and Rule 221 - Plans. Similarly, if a request to move a monitor is not approved through an amendment of the Compliance Monitoring Plan, that decision can also be appealed to the SCAQMD Hearing Board.

Language has also been added to the rule that a request to move a monitor will be approved or disapproved within 14 days of receipt.

APPENDIX B

COMPARATIVE ANALYSIS

Comparison of PAR 1156 and Other Requirements for Cement Manufacturing

Appendix B - Comparison Between PR1156 and Other Requirements for Cement Manufacturing

Note: For comparison purposes, Rule 1156 amendments made in 2009 are reflected in *italics* format. Proposed amendments for 2015 are in **bold underline and highlighted**.

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
APPLICABILITY				
<p>Equipment/Operation:</p> <p>Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, conveyor transfer points, bagging, bulk loading and unloading systems; and operations that generate fugitive dusts.</p>	<p><u>Equipment/Operation:</u></p> <p>Cement kiln and clinker cooler for dry-process manufacturing of gray cement.</p>	<p><u>Equipment/Operation:</u></p> <p>Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, conveyor transfer points, bagging and bulk loading and unloading systems</p> <ul style="list-style-type: none"> • Equipment constructed or modified after 7/17/1971. 	<p>Facility is a major source or area source of air toxics;</p> <p><u>Equipment/Operation:</u></p> <p>Kiln, clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, conveyor transfer points, bagging and bulk loading and unloading systems</p> <ul style="list-style-type: none"> • Existing equipment or equipment constructed or reconstructed after 9/11/1998. 	<p>Equipment that:</p> <ul style="list-style-type: none"> • is subject to emission standard (e.g. SIP approved rules but not 40 CFR Part 60 or Part 63 rules); • uses a control device, and • 3) has pre-control emissions that are equal to or more than the major source level (e.g. 70 tpy PM10)

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
COMPLIANCE DATE				
<p>By December 2006.</p> <p>Facility Emissions:</p> <p>Reduce 2003 baseline emissions by 50% by 2006.</p> <p><u>Clinker Material Storage</u></p> <p><i>Enclosure or alternatives:</i></p> <p><i>6 months from date of adoption</i></p> <p><u>Monitoring Requirements</u></p> <p><i>Wind: 6 months from date of adoption.</i></p> <p><i>Cr⁺⁶: 6 months from date plan approval or 3/1/10, whichever occurs earlier.</i></p> <p>Effective September 5, 2016 fence-line limit of 0.2 ng/m³</p> <p><i>PM10 (if applicable):</i></p> <p><i>6 months from date plan or 12 months from date of third confirmed violation, whichever occurs first.</i></p>	<p>On and after February 1986.</p>	<p>On or after completion of the initial performance test.</p>	<ul style="list-style-type: none"> • For existing equipment: 6/14/2002 • For new or modified equipment: Upon startup 	<p>If the Title V application is complete before 4/20/1998, a CAM plan is due as part of the application for the Title V permit renewal, or as part of the application for a significant permit revision.</p>

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
PERFORMANCE STANDARDS				
<p>All Equipment: Opacity ≤ 10%</p> <p>Kilns and Clinker Coolers: PM₁₀ ≤ 0.05 lb/ton clinker</p> <p>All Baghouses: Outlet concentration ≤ 0.005 grain/dscf ; or 99.5% capture efficiency and 99.5% collecting efficiency</p> <p>Other Equipment</p> <ul style="list-style-type: none"> • Opacity ≤ 10% process equipment via method 9 • Opacity < 20% open piles & roadways via method 9B • Visible emissions not to exceed 100 ft. plume in any direction <p>Other Requirements</p> <ul style="list-style-type: none"> • Enclosed storage piles, crushers, screens, mills, 	<p><u>Kilns and Clinker Coolers Combined</u></p> <ul style="list-style-type: none"> • PM ≤ 0.4 lb/ton feed when kiln feed rates <75 ton/hr • PM ≤ 30 lb/hr when kiln feed rates >75 ton/hr 	<p><u>Kilns</u></p> <ul style="list-style-type: none"> • PM ≤ 0.3 lb/ton feed dry basis • Opacity ≤ 20% <p><u>Clinker Coolers</u></p> <ul style="list-style-type: none"> • PM ≤ 0.1 lb/ton feed dry basis • Opacity ≤ 10% <p><u>Other Equipment</u></p> <p>Opacity ≤ 10%</p>	<p><u>Kilns:</u></p> <ul style="list-style-type: none"> • PM ≤ 0.3 lb/ton feed dry basis • Opacity ≤ 20% <p><u>Clinker Coolers</u></p> <ul style="list-style-type: none"> • PM ≤ 0.3 lb/ton feed dry basis • Opacity ≤ 10% <p><u>Other Equipment</u></p> <p>Opacity ≤ 10%</p> <p><u>Other Requirements</u></p> <p>THC < 50 ppmvd as propane corrected to 7% oxygen</p> <p>D/F < 8.7 x 10⁻¹¹ grain/dscf corrected to 7% oxygen</p>	<p>Not specified performance standards.</p>

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
<p>conveying systems, and other equipment.</p> <ul style="list-style-type: none"> • Pave roads, use chemical dust suppressants, limit vehicle speed, street sweeping, and facility cleanup. • <i>Enclose clinker material storage and handling; alternatively, tarp/wind fence if >1,000 feet from property line.</i> <p><i>Monitoring</i></p> <ul style="list-style-type: none"> • <i>Wind gusts >25 mph: shutdown of material handling.</i> • <i>Cr⁺⁶ 30-day or 90-day rolling average, as applicable, shall not exceed 0.7 ng/m³. 0.2 ng/m³ beginning September 5, 2016.</i> • <i>PM10 monitoring, if applicable, shall require dust control activities if 3 NOVs for upwind/downwind concentration exceeding 50 µg/m³.</i> 				

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS				
<ul style="list-style-type: none"> • Annual source testing for kilns and clinker coolers • Source test at least 10 equipment vented to baghouses which are in the top 20% PM10 emitters at the facility. • Monitor operating parameters of baghouses such as flue gas flow rates and pressure drop across filters. • Keep all records to demonstrate compliance for at least 5 years. • Report annual emissions for all process equipment, open storage piles and vehicle traffic. • Source Test Methods: AQMD Method 5.1, 5.2, 5.3 or EPA Method 5 modified; or EPA Method 201A and 202 for PM10. • <i>Submit Compliance Plan 3-months from date of adoption.</i> 	<p>Not specify.</p>	<ul style="list-style-type: none"> • Continuous opacity monitoring for kilns and clinker coolers and any bypass • Record visible emissions at least three 6-minute periods each day, and records maintained for 2 years. • Record daily production rates and kiln feed rates • Initial performance test is required to be conducted. • Excess emissions must be reported semi – annually. • Malfunctions must be reported. • Semiannual report of excess emissions and malfunctions 	<ul style="list-style-type: none"> • Initial performance test is required to determine compliance with the emission limitation and to establish the operating limits • Performance test is required every 30 months – 5years • Source Test Methods: EPA Method 5 for PM and Method 9 for opacity. 	<p>A CAM plan accompanying a Title V permit must:</p> <ul style="list-style-type: none"> • Describe indicators to be monitored; • Describe indicators' ranges; • Describe performance criteria for monitoring; • Provide justification for the use of the indicators, ranges, and monitoring approach; • Provide emission test data, if necessary; and • Provide an implementation plan. <p>A Title V permit must:</p> <ul style="list-style-type: none"> • Include approved monitoring approach, • Have specific definitions of exceedence or excursion; • Include reporting and recordkeeping requirements; and • Indicate if source testing is required. <p>Source Test Methods: Not specified.</p>

RULE 1156	SCAQMD RULE 1112.1	NSPS -- 40CFR PART 60 SUBPART F	NESHAP -- 40 CFR PART 63 SUBPART LLL	COMPLIANCE ASSURANCE MONITORING 40CFR PART 64
<ul style="list-style-type: none"> • <i>Keep records relative to monitoring and use of exemptions.</i> • <i>Report monitoring data monthly.</i> • <u>Upon 12 months of compliant monitoring data from (date of adoption), facility may reduce to one monitor in principally down-wind areas.</u> • <u>After site remediation and/or clean up efforts are completed, monitoring may cease after 3 months.</u> 		<ul style="list-style-type: none"> • Source Test Methods: EPA Method 5 for PM and Method 9 for opacity. 		

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Environmental Assessment:

Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities

November 2015

SCAQMD No. 150623JI

Executive Officer

Barry R. Wallerstein, D. Env.

Deputy Executive Officer

Planning, Rule Development and Area Sources

Philip Fine, Ph.D.

Assistant Deputy Executive Officer

Planning, Rule Development and Area Sources

Jill Whynot

Planning and Rules Manager

Planning, Rule Development and Area Sources

Ian MacMillan

Author: Jeff Inabinet Air Quality Specialist, CEQA

Technical Assistance: Tuyet-le Pham Air Quality Specialist

Reviewed By: Jillian Wong, Ph.D. Program Supervisor, CEQA
Tracy Goss, P.E. Planning and Rules Manager
Ruby Fernandez Senior Deputy District Counsel

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
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Cities of Los Angeles County/Eastern Region

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Governor's Appointee

JUDITH MITCHELL
Councilmember, Rolling Hills Estates
Cities of Los Angeles County/Western Region

SHAWN NELSON
Supervisor, Fourth District
County of Orange

DR. CLARK E. PARKER, SR.
Senate Rules Appointee

MIGUEL A. PULIDO
Mayor, Santa Ana
Cities of Orange County

JANICE RUTHERFORD
Supervisor, Second District
County of San Bernardino

EXECUTIVE OFFICER:

BARRY R. WALLERSTEIN, D.Env.

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APPENDIX C – OPERATIONAL EMISSION CALCULATIONS

PREFACE

This document constitutes the Final Environmental Assessment (EA) for Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities. The Draft EA was released for a 30-day public review and comment period from July 21, 2015 to August 19, 2015. No comment letters on the Draft EA were received during the public comment period. The environmental analysis in the Draft EA concluded that Proposed Amended Rule 1156 would not generate any significant adverse environmental impacts.

Minor modifications were made to the proposed amended rule subsequent to release of the Draft EA for public review. To facilitate identifying modifications to the Draft EA, added and/or modified text is underlined. Some of these rule modifications include: the elimination of a dust mitigation plan submittal prior to land disturbing activities; the extension of the effective date of the ambient hexavalent chromium fenceline standard; updated requirements associated with exceedances of the ambient hexavalent chromium concentration and associated compliance plan; clarified that compliance plan requirements would not be required for an exceedance where the facility demonstrates that it is not the primary cause of the measured exceedance; if exceeding the fenceline standard, the facility would not have to submit a compliance plan if it is required to submit or has an approved health risk assessment under Rule 1402; added provisions to specify that exceedances of the applicable ambient hexavalent chromium concentration after September 5, 2016 but before September 5, 2018 would not be considered to be a violation of the rule; streamlined requirements relative to cessation of hexavalent chromium monitoring after facility closure; clarified requirements related to the number of hexavalent chromium monitors required and sampling frequency; added definitions for Facility Closure and Primary Cause; updated and clarified the provisions associated with facility closure; and administrative corrections and clarifications. Staff has reviewed these minor rule modifications and concluded that they do not cause any CEQA impacts to be substantially worse or change any conclusions reached in the Draft EA. By analyzing the more stringent requirements of the previous version of the proposed amended rule, the Draft EA evaluated a “worst-case” impact scenario. Therefore, any potential adverse impacts from the currently proposed project are expected to be less than the potential adverse impacts evaluated in the Draft EA. As a result, these minor revisions do not require recirculation of the document pursuant to CEQA Guidelines §15088.5. Therefore, this document now constitutes the Final EA for Proposed Amended Rule 1156.

CHAPTER 1 - PROJECT DESCRIPTION

Introduction

Affected Facilities

California Environmental Quality Act

Project Location

Project Objective

Project Background

Cement Manufacturing Overview

Project Description

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977¹ as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin and Mojave Desert Air Basin referred to herein as the District. By statute, the SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the District². Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP³. The Final 2012 AQMP concluded that reductions in emissions of particulate matter (PM), oxides of sulfur (SOx), oxides of nitrogen (NOx), and volatile organic compounds (VOC) are necessary to attain the current state and national ambient air quality standards for ozone, and particulate matter with an aerodynamic diameter of 2.5 microns or less (PM2.5). Ozone, a criteria pollutant which has been shown to adversely affect human health, is formed when VOCs react with NOx in the atmosphere. VOCs, NOx, SOx (especially sulfur dioxide) and ammonia also contribute to the formation of PM10 and PM2.5.

The Basin is designated by the United States Environmental Protection Agency (EPA) as a non-attainment area for ozone and PM2.5 emissions because the federal ozone standard and the 2006 PM2.5 standard have been exceeded. For this reason, the SCAQMD is required to evaluate all feasible control measures in order to reduce direct ozone and PM2.5 emissions, including PM2.5 precursors, such as NOx and SOx. The Final 2012 AQMP sets forth a comprehensive program for the Basin to comply with the federal 24-hour PM2.5 air quality standard, satisfy the planning requirements of the federal Clean Air Act, and provide an update to the Basin's commitments towards meeting the federal 8-hour ozone standard. In particular, the Final 2012 AQMP contains a multi-pollutant control strategy to achieve attainment with the federal 24-hour PM2.5 air quality standard with direct PM2.5 and NOx reductions identified as the two most effective tools in reaching attainment with the PM2.5 standard. The 2012 AQMP also serves to satisfy the recent requirements promulgated by the EPA for a new attainment demonstration of the revoked 1-hour ozone standard, as well as to provide additional measures to partially fulfill long-term reduction obligations under the 2007 8-hour Ozone State Implementation Plan (SIP).

In addition to regulating criteria pollutants, state law specifies that air districts may regulate Toxic Air Contaminants (TACs). Specifically, Health and Safety Code §39656, California legislature has delegated the air districts, including the SCAQMD, to establish and implement a program to regulate TACs. Similarly, SCAQMD implements the Air Toxics Hot Spots Act (Health and Safety Code §44330) through Rule 1402.

To address potential air quality impacts and exposure to hexavalent chromium (Cr⁺⁶) after the closure of cement manufacturing facilities, and to ensure long-term air quality and protection, the SCAQMD is proposing revisions to Rule 1156. The currently proposed amendments include requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr⁺⁶ monitoring stations, including the elimination of Cr⁺⁶ ambient monitoring under specific conditions.

¹ The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch 324 (codified at Health and Safety Code, §§40400-40540).

² Health and Safety Code, §40460 (a).

³ Health and Safety Code, §40440 (a).

The proposed amendments would also revise the Cr⁺⁶ ambient air monitoring fence-line threshold as a result of the 2015 update to the Office of Environmental Health Hazard Assessment's (OEHHA) risk assessment guidelines. On June 5, 2015, the SCAQMD Governing Board amended the District's primary rules addressing toxic emissions (e.g. Rules 1401, 1401.1, 1402 and 212) to take into account the new OEHHA guidelines. This proposed amendment will ensure that PAR 1156 uses a risk assessment methodology that is consistent with the District's primary toxic rules. The new guidelines apply age sensitivity factors and multiple pathways of exposure, in addition to inhalation and cancer risk estimates to residential and sensitive receptors. Assuming a constant level of monitored Cr⁺⁶, the new OEHHA guidelines yield an approximately 3.87-fold increase in residential cancer risk in comparison to the previous guidelines.

The proposed amendments would therefore change the fence-line Cr⁺⁶ ambient air limit from 0.7 ng/m³ to 0.20 ng/m³ (both levels are excluding background). The Cr⁺⁶ ambient air monitoring background is currently 0.043 ng/m³, based on the average background concentrations observed at the Fontana and Rubidoux stations as part of the fourth Multiple Air Toxics Emissions Study (MATES IV). With this background level, the new effective limit for Cr⁺⁶ will be 0.243 ng/m³. PAR 1156 also proposes an implementation schedule for the new fence-line limit phase-in.

PAR 1156 development is the result of a March 2009 Rule 1156 amendment Resolution in which the SCAQMD Governing Board directed staff to re-evaluate the need for, and the frequency of, Cr⁺⁶ ambient monitoring after five years of data collection, and to establish a working group to develop a Facility Closure Air Quality Plan Option (Closure Plan).

AFFECTED FACILITIES

Rule 1156 requires cement manufacturing facilities to comply with specific requirements applicable to various operations, as well as materials handling and transport at the facilities. Riverside Cement (RC) in Riverside and California Portland Cement Company (CPCC) in Colton are the two cement manufacturing facilities in the SCAQMD's jurisdiction subject to Rule 1156. Currently, both cement manufacturing facilities are non-operational regarding clinker production. RC and CPCC only process clinker or cement material imported from facilities outside the SCAQMD's jurisdiction.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PAR 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities, is a discretionary action by a public agency, which has potential for resulting in direct or indirect changes to the environment and, therefore, is considered a “project” as defined by the California Environmental Quality Act (CEQA). SCAQMD is the lead agency for the proposed project and has prepared this final environmental assessment (EA) with no significant adverse impacts pursuant to its Certified Regulatory Program and SCAQMD Rule 110. California Public Resources Code §21080.5 allows public agencies with regulatory programs to prepare a plan or other written document in lieu of an environmental impact report or negative declaration once the Secretary of the Resources Agency has certified the regulatory program. SCAQMD's regulatory program was certified by the Secretary of the Resources Agency on March 1, 1989, and is codified as SCAQMD Rule 110.

CEQA and Rule 110 require that potential adverse environmental impacts of proposed projects be evaluated and that feasible methods to reduce or avoid significant adverse environmental impacts of these projects be identified. To fulfill the purpose and intent of CEQA, the SCAQMD has prepared this final EA to address the potential adverse environmental impacts associated with the proposed project. The final EA is a public disclosure document intended to: (a) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental effects of the proposed project; and, (b) be used as a tool by decision makers to facilitate decision making on the proposed project.

SCAQMD's review of the proposed project shows that the proposed project would not have a significant adverse effect on the environment. Therefore, pursuant to CEQA Guidelines §15252 and 15126.6(f), no alternatives are proposed to avoid or reduce any significant effects because there are no significant adverse impacts, and pursuant to CEQA Guidelines §15126.4(a)(3), mitigation measures are not required for effects not found to be significant. The analysis in the form of the environmental checklist in Chapter 2 supports the conclusion of no significant adverse environmental impacts.

~~Comments received on the draft EA during the public comment period and responses to comments will be prepared and included in the Final EA for the proposed project.~~

No comments were received on the draft EA during the public comment period.

PROJECT LOCATION

The potentially affected facilities are located within the SCAQMD jurisdiction. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Basin) (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) (Figure 1-1).

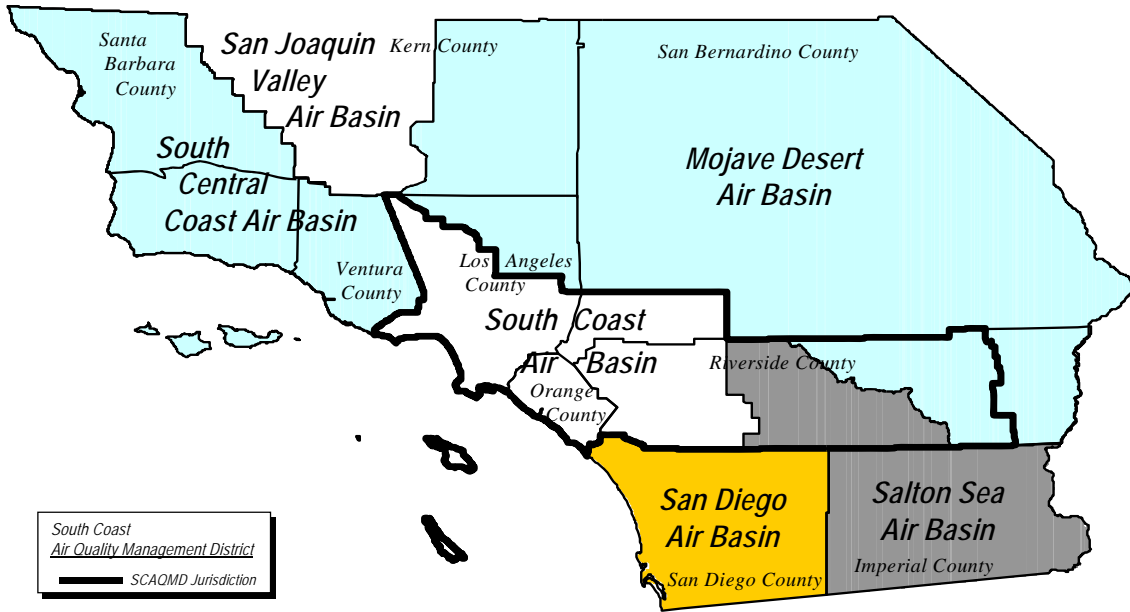


Figure 1-1
Boundaries of the South Coast Air Quality Management District

PROJECT OBJECTIVE

The objectives of the PAR 1156 are to:

- provide a mechanism for reduction of Cr⁺⁶ monitoring requirements for existing facilities based on monitored data or a cessation of monitoring upon facility closure;
- revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the new OEHHA risk assessment guidelines;
- revise the criteria used to validate duplicate PM samples; and
- add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure.

PROJECT BACKGROUND

Rule 1156 was originally adopted in November 2005. Rule 1156 implemented a portion of the 2003 AQMP control measure BCM-08 – Further Emission Reductions of Particulate Emissions from Cement Manufacturing Facilities. Cement manufacturing facilities are defined as any facility engaged in producing Portland cement or associated products. In March 2009, the rule was amended to further reduce particulate emissions and to address elevated ambient concentrations of the carcinogen, Cr⁺⁶, observed at the Rubidoux monitoring station in Western Riverside County as part of the third Multiple Air Toxics Emissions Study (MATES III). To protect the public from Cr⁺⁶ exposure, the amendments included a threshold for Cr⁺⁶ that was established to be 0.70 ng/m³ (excluding background), based on 100-in-a-million fence-line cancer risk. Based on MATES III, a 0.16 ng/m³ Cr⁺⁶ background was derived based on the two-year sampling effort at nine fixed-site monitoring stations across the Basin (excluding the Rubidoux station). The Rubidoux station was excluded from the derivation as its Cr⁺⁶ levels were likely influenced by the cement manufacturing facilities. Therefore, a fence-line effective limit was established at 0.860 ng/m³. The rule amendment also required additional control measures such as: clinker storage area protection, Cr⁺⁶ ambient monitoring, and wind monitoring, with contingencies (i.e., clinker enclosure based on Cr⁺⁶ results and PM10 monitoring in case of elevated concentrations). As part of the rule amendment Resolution in 2009, the Board directed staff to re-evaluate the need for, and the frequency of, Cr⁺⁶ ambient monitoring after five (5) years of data collection, and to establish a working group to develop a Facility Closure Air Quality Plan Option (Closure Plan).

SCAQMD staff met with the working group in 2010 and 2011 to discuss the criteria for facility closure and conditions to potentially sunset Cr⁺⁶ ambient monitoring. A draft closure plan was developed and presented to the Stationary Source Committee (SSC) in 2012, but was left as a living document since neither facility was producing clinker at the time and there was uncertainty regarding future cement manufacturing activities. Currently, both cement manufacturing facilities are still non-operational regarding clinker production. RC and CPCC only process clinker or cement material imported from facilities outside the SCAQMD's jurisdiction.

CEMENT MANUFACTURING OVERVIEW

Portland cement is commonly manufactured through a dry method in which the combination of ground limestone rock and iron ore or other materials is fed to a cement kiln. As the materials move through the rotating kiln at a high temperature (about 2,700 degree Fahrenheit), some elements are driven off as gases or particulates and the remaining form a new substance called clinker. Clinker comes out of the kiln as hot, gray spheres about the size of large marbles. Clinker is cooled, ground and/or milled to a very fine product, and blended with small amounts of gypsum and fly ash to become cement, which is sold in packages or in bulk.



Typical clinker nodules

According to staff analysis in 2008 that included soil sampling, ambient air sampling, and emissions modeling, uncontrolled clinker material handling at cement manufacturing facilities associated with outdoor storage, transfer and re-entrained road dust were found to be the sources of the elevated ambient Cr^{+6} concentrations in Rubidoux. Kilns and finish mills at cement manufacturing facilities can also influence the formation and emissions of Cr^{+6} . Cr^{+6} is a potent, known carcinogen, exposure to which could result in lung cancer, irritation and damage to the skin, eyes, nose, throat, and lung, asthma symptoms, and/or allergic skin reactions. Since clinker materials might also contain other toxics such as lead, arsenic, cadmium, and cobalt in addition to Cr^{+6} , controlling emissions from these activities are essential.

Currently, both RC and CPCC are no longer producing clinker on-site. CPCC only imports cement from its Mojave facility for batch operations and has no immediate plans to restart one or

both of its kilns to manufacture clinker at the Colton facility. However, CPCC retains the capability to restart clinker production. RC previously manufactured clinker at the Riverside facility, but has not done so for many years. RC continues its cement manufacturing at this location by importing clinker from its Oro Grande facility for grinding, blending, and packaging in enclosed buildings vented to air pollution control devices.

PROJECT DESCRIPTION

The SCAQMD is developing PAR 1156 to address potential air quality impacts and exposure to Cr⁺⁶ after the closure of cement manufacturing facilities, and to ensure long-term air quality and protection, while streamlining Cr⁺⁶ ambient monitoring. The summary below and the revised rule language contained in Appendix A of this EA make up the project description used for this CEQA analysis. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. The proposed amendments would reduce permissible Cr⁺⁶ fence-line levels to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines; reduce Cr⁺⁶ monitoring requirements at existing facilities based either on compliance history, or potentially ceasing monitoring upon facility closure; and add provisions for a dust mitigation plan prior to any land disturbance activities occurring on a property after facility closure. A compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr⁺⁶ exceedance of the new threshold of 0.20 ng/m³ occurring after September 5, 2016.

CHAPTER 2 - ENVIRONMENTAL CHECKLIST

Introduction

General Information

Environmental Factors Potentially Affected

Determination

Environmental Checklist and Discussion

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's potential adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Proposed Amended Rule 1156 – Further Reductions of Particulate Emissions from Cement Manufacturing Facilities
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Mr. Jeff Inabinet (909) 396-2453
Rule Contact Person	Ms. Tuyet-le Pham (909) 396-3299
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	To address potential air quality impacts from the closure of cement manufacturing facilities and to ensure long-term air quality and protection, the South Coast Air Quality Management District (SCAQMD) is proposing revisions to Rule 1156. The currently proposed amendments are intended to minimize potential air quality impacts from cement facility closure and to ensure long-term air quality and public protection, while streamlining Cr ⁺⁶ ambient monitoring. The proposed amendments include requirements for owners/operators of the affected property before and after facility closure. The proposed amendments would reduce permissible Cr ⁺⁶ fence-line levels to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines; reduce Cr ⁺⁶ monitoring requirements at existing facilities based either on compliance history, or potentially ceasing monitoring upon facility closure; and add provisions for a dust mitigation plan prior to any land disturbance activities occurring on a property after facility closure.
Surrounding Land Uses and Setting:	Not applicable
Other Public Agencies Whose Approval is Required:	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓" may be adversely affected by the proposed project. An explanation relative to the determination of impacts can be found following the checklist for each area.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Population and Housing |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Air Quality and Greenhouse Gas Emissions | <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Solid/Hazardous Waste |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Noise | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

On the basis of this initial evaluation:

- I find the proposed project, in accordance with those findings made pursuant to CEQA Guideline §15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.
- I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.
- I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.
- I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect 1)has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: July 17, 2015

Signature: _____



Jillian Wong, Ph.D.
Program Supervisor
Planning, Rule Development, and Area
Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

As discussed in Chapter 1, the main focus of PAR 1156 is to minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr⁺⁶ ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. However, a compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr⁺⁶ exceedance of the new threshold of 0.20 ng/m³ occurring after September 5, 2016.

The key proposed amendments to the rule include the following:

- Criteria for facility closure relative to cement manufacturing operation: activities must be completely ceased (i.e., blending silo, kiln, clinker cooler, and clinker grinding/milling) and related permits must be surrendered or have expired and are no longer reinstatable;
- Condition for reducing Cr⁺⁶ ambient monitoring stations at existing cement facilities:
 - Approval for reduced number of monitoring stations (minimum of one) may be obtained upon subsequent 12 consecutive months of demonstrating less than current Cr⁺⁶ threshold (0.70 ng/m³, excluding background) after date of rule amendment;
 - Reversion to more frequent monitoring schedule for confirmed exceedances of the applicable threshold, considering wind and other relevant data;
- Effective September 5, 2016, ambient Cr⁺⁶ concentrations from a 30-day or 90-day rolling average shall not exceed 0.20 ng/m³ (excluding background). Prior to this date, the previous Cr⁺⁶ threshold of 0.70 ng/m³ (excluding background) is still in effect.
- A compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr⁺⁶ exceedance of the new threshold of 0.20 ng/m³ occurring after September 5, 2016.
- Criteria to validate duplicate samples:
 - PM10 concentrations of both samples must be below 0.002 grain/dscf; or
 - The difference between two samples shall be less than 35 percent of their average and the difference between the sample catches (normalized to the average sampling volume) shall be less than 3.5 milligrams;
- Requirements after facility closure:
 - Continued Cr⁺⁶ ambient monitoring with possible sunset if no confirmed exceedance occurs during 12 consecutive months of monitoring after date of rule amendment;
 - Provisions for Cr⁺⁶ ambient monitoring relocation and co-located monitoring and sampling by SCAQMD;

- Dust mitigation plan submittal and written approval from SCAQMD prior to land disturbance activities:
 - Protocol for soil sampling and Cr⁺⁶ ambient monitoring required before, during, and after land disturbance activities;
 - Approval for reducing Cr⁺⁶ ambient monitoring stations and/or frequency of soil sampling and Cr⁺⁶ ambient monitoring may be obtained based on scope of activities;
 - Description of control and/or stabilization measures required upon evidence of Cr⁺⁶ in excess of the local background levels;
 - Required information regarding dust mitigation measures; and
 - Areas of property that are not contaminated may be excluded from the Dust Mitigation Plan, based on site-specific assessments identifying areas with and without Cr⁺⁶ contamination; and

Once the new Cr⁺⁶ threshold of 0.20 ng/m³ becomes effective and there is a confirmed exceedance by the facility, a compliance plan with detailed descriptions of all feasible measures is required. Some of the potential measures may include additional controls on packing operations (i.e. installation of plastic shrouding), retrofitting of existing enclosures to ensure that fugitive emissions are not escaping, and application of water and/or chemical stabilizers for dust suppression. Potential impacts from these feasible measures are evaluated below in the appropriate environmental topic area.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

I. a), b), c) & d) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment’s (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities on the property after facility closure. Therefore, there is no construction anticipated that would alter any views of the site as a result of PAR 1156. If the fenceline threshold is exceeded, the owner/operator of the affected property will have to submit a compliance plan which includes measures to reduce the on-site fugitive emissions.

The affected facilities are located in an existing highly industrialized commercial area that does not have any known scenic vistas or scenic resources. No construction is anticipated that would alter any views of the site in order to comply with PAR 1156. Therefore, PAR 1156 would not obstruct any scenic resources or degrade the existing visual character of any affected site, including but not limited to, trees, rock outcroppings, or historic buildings. Further, the proposed project would not involve the demolition of any existing buildings or facilities, require the

acquisition of any new land or the surrendering of existing land, or the modification of any existing land use designations or zoning ordinances. All new enclosures would be developed within the existing footprints of the affected facilities. Thus, the proposed project is not expected to degrade the visual character of any site or its surroundings from the existing visual character, affect any scenic vista, damage scenic resources, or create any new source of substantial light or glare.

Based upon these considerations, significant adverse aesthetics impacts are not anticipated and will not be further analyzed in this final EA. Since no significant adverse aesthetics impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104 (g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Project-related impacts on agriculture and forestry resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.

- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined in Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code § 51104 (g)).
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion

II. a), b), c) & d) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment’s (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. There is no construction anticipated as a result of PAR 1156. Therefore, adoption of the proposed project would not result in any new construction of buildings or other structures that would convert farmland to non-agricultural use or conflict with zoning for agricultural use or a Williamson Act contract. The proposed project would not require converting farmland to non-agricultural uses because the potentially affected facilities are already completely developed. For the same reasons, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.

Based upon these considerations, significant adverse agricultural and forestry resource impacts are not anticipated and will not be further analyzed in this final EA. Since no significant agriculture and forestry resource impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Air Quality Significance Criteria

To determine whether or not air quality impacts from adopting and implementing the proposed project are significant, impacts will be evaluated and compared to the criteria in Table 2-1. The project will be considered to have significant adverse air quality impacts if any one of the thresholds in Table 2-1 are equaled or exceeded.

To determine whether or not greenhouse gas emissions from the proposed project may be significant, impacts will be evaluated and compared to the 10,000 MT CO₂/year threshold for industrial sources.

**TABLE 2-1
SCAQMD Air Quality Significance Thresholds**

Mass Daily Thresholds ^a		
Pollutant	Construction ^b	Operation ^c
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM₁₀	150 lbs/day	150 lbs/day
PM_{2.5}	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO ₂ eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants ^d		
NO₂ 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM₁₀ 24-hour average annual average	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^e & 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$	
PM_{2.5} 24-hour average	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^e & 2.5 $\mu\text{g}/\text{m}^3$ (operation)	
SO₂ 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99 th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 $\mu\text{g}/\text{m}^3$ (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average Quarterly average	1.5 $\mu\text{g}/\text{m}^3$ (state) 0.15 $\mu\text{g}/\text{m}^3$ (federal) 1.5 $\mu\text{g}/\text{m}^3$ (federal)	

^a Source: SCAQMD CEQA Handbook (SCAQMD, 1993)

^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).

^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

^d Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.

^e Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million $\mu\text{g}/\text{m}^3$ = microgram per cubic meter \geq = greater than or equal to
 MT/yr CO₂eq = metric tons per year of CO₂ equivalents $>$ = greater than

III. a), b) and f) Attainment of the state and federal ambient air quality standards protects sensitive receptors and the public in general from the adverse effects of criteria pollutants which are known to have adverse human health effects. The SCAQMD is required by law to prepare a comprehensive district-wide Air Quality Management Plan (AQMP) which includes strategies (e.g., control measures) to reduce emission levels to achieve and maintain state and federal ambient air quality standards, and to ensure that new sources of emissions are planned and operated to be consistent with the SCAQMD's air quality goals. The AQMP's air pollution reduction strategies include control measures which target stationary, area, mobile and indirect sources. These control measures are based on feasible methods of attaining ambient air quality standards. Pursuant to the provisions of both the state and federal Clean Air Acts (CAA)s, the SCAQMD is required to attain the state and federal ambient air quality standards for all criteria pollutants.

The main focus of PAR 1156 is to minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr⁺⁶ ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. However, a compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr⁺⁶ exceedance of the new threshold of 0.20 ng/m³ occurring after September 5, 2016.

Construction Impacts

PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. A compliance plan with detailed descriptions of all feasible measures is required upon any confirmed Cr⁺⁶ exceedance of the new threshold of 0.20 ng/m³ occurring after September 5, 2016. Potential measures in the compliance plan could include the installation of plastic shrouding around bagging operations, the partitioning of active bagging operations from the finished product storage areas, and the installation of plastic door flaps to prevent the escape of fugitive dust.

The construction-related activities attributable to installing this type of limited control equipment would be conducted using predominantly small, hand held tools, since most of this equipment is manufactured off-site and brought to the location. For the purposes of this analysis, construction activities undertaken to install this limited type of control equipment are anticipated to entail the use of hand held equipment by small construction crews to cut, fit and affix plastic shrouding/partitioning where necessary. Criteria pollutant emissions were calculated for all on-road vehicles transporting workers, vendors, and material delivery associated with the limited control equipment. Table 2-2 presents the peak daily construction emissions associated with the installation of shrouding/partitioning materials. Construction emissions calculations are provided in Appendix B.

**Table 2-2
Peak Daily Construction Emissions Due to Installation of Shrouding / Partitioning
Materials**

PEAK CONSTRUCTION	VOC	CO	NO _x	SO _x	PM10	PM2.5
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Total Project Emissions	0.69	4.60	4.55	0.01	0.26	0.21
SCAQMD CEQA SIGNIFICANCE THRESHOLD	75	550	100	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

The construction-related emissions attributable to installing this type of limited control equipment do not exceed SCAQMD peak daily construction emission significance thresholds.

Operational Impacts- Criteria Pollutants

The two affected facilities are currently required to apply chemical stabilizers to the properties twice per year, per Rule 1156. If the new Cr⁺⁶ ambient air monitoring fence-line threshold is exceeded, additional applications of chemical soil stabilizers may be required at the property, including any areas where uncovered piles of material are located on-site. For a conservative approach, it was estimated that each affected facility may be required to apply chemical soil stabilizers an additional two times per year. Also, additional Cr⁺⁶ sampling requirements will require the collection and delivery of samples to a laboratory for analysis. The sprayer truck emissions associated with the additional soil stabilizer applications and the sample collection and laboratory delivery vehicle emissions are presented in Table 2-3. Operational emissions calculations are provided in Appendix C.

**Table 2-3
Peak Daily Operational Emissions Due to Additional Chemical Soil Stabilizer Applications
and Sample Collection / Delivery**

PEAK DAILY OPERATION	VOC	CO	NO _x	SO _x	PM10	PM2.5
	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day
Total Project Emissions	1.36	7.06	10.35	0.02	0.44	0.43
SCAQMD CEQA SIGNIFICANCE THRESHOLD	55	550	55	150	150	55
SIGNIFICANT?	NO	NO	NO	NO	NO	NO

The operational-related emissions attributable to additional soil stabilizer applications and sample collection/delivery do not exceed SCAQMD peak daily operational emissions significance thresholds.

Operational Impacts- Toxic Air Contaminants

In assessing potential impacts from the adoption of proposed rules and amendments, SCAQMD staff not only evaluates the potential air quality benefits, but also determines potential health risks associated with implementation of the proposed rules and amendments.

Adoption of the proposed rule would establish procedures to reduce Cr⁺⁶ emissions from the affected facilities even after facility closure. There are no provisions in the rule that would

generate any toxic emissions. As a result, there will be no increase in toxic air contaminant emissions due to the proposed project.

In summary, because emissions from this project would not exceed any SCAQMD thresholds for construction or operations, the proposed project will have no impact on our ability to implement the AQMP, no impact on any air quality standards, and no impact on any rules or requirements that could significantly impact air quality.

III. c) As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant⁴.

This approach was upheld by the Court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the SDAPCD's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines §15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although the project will contribute additional air pollutants to an existing nonattainment area, these increases are below the significance criteria..." "Thus, we conclude that no fair argument exists that the Project will cause a significant unavoidable cumulative contribution to an air quality impact." As in *Chula Vista*, here the District has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. Here again the court upheld the lead agency's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively considerable. Thus, it may be concluded that the Project will not cause a significant unavoidable cumulative contribution to an air quality impact.

Based on the foregoing analysis, project-specific air quality impacts from implementing the proposed project would not exceed air quality significance thresholds (Table 2-1); therefore, based on the above discussion, cumulative impacts are not expected to be significant for air quality. Therefore, potential adverse impacts from the proposed project would not be "cumulatively considerable" as defined by CEQA Guidelines §15064(h)(1) for air quality impacts. Per CEQA Guidelines §15064(h)(4), the mere existing of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulative considerable.

⁴ SCAQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3, <http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4>.

III. d) Affected facilities are not expected to increase exposure by sensitive receptors to substantial pollutant concentrations from the implementation of PAR 1156 for the following reasons: 1) the proposed monitoring requirements and compliance plan will help reduce potential toxic exposure by sensitive receptors; 2) there are no provisions in the proposed rule that would cause an affected facility to generate any new or increased toxic emissions; and 3) there will be no additional electrical generation facilities needed as a result of the adoption of the proposed project (note: there will be a minimal additional need for power, but the demand, according to the power generators, can be met with existing systems). Therefore, significant adverse air quality impacts to sensitive receptors are not expected from implementing the proposed project.

III. e) The main objective of the proposed rule is to establish procedures to reduce Cr⁺⁶ emissions from the affected facilities even after facility closure. Therefore, no significant odor impacts are expected to result from implementing the proposed project, as no odorous compounds are generated by any proposed project activities.

III. g) & h) Changes in global climate patterns have been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, recently attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming.⁵ State law defines GHG to include the following: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) (HSC §38505(g)). The most common GHG that results from human activity is CO₂, followed by CH₄ and N₂O.

GHGs and other global warming pollutants are often perceived as solely global in their impacts because increasing emissions anywhere in the world contributes to climate change anywhere in the world. However, a study conducted on the health impacts of CO₂ "domes" that form over urban areas shows they can cause increases in local temperatures and local criteria pollutants, which have adverse health effects.⁶

The analysis of GHGs is a different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, the significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health (e.g., one-hour and eight-hour standards). Since the half-life of CO₂ is approximately 100 years, for example, the effects of GHGs occur over a longer term which means they affect the global climate over a relatively long

⁵ Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.). 2007. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007. Cambridge University Press.
http://www.ipcc.ch/publications_and_data/ar4/wg1/en/contents.html

⁶ Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO₂ Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at:
<http://news.stanford.edu/news/2010/march/urban-carbon-domes-031610.html>.

time frame. As a result, the SCAQMD’s current position is to evaluate the effects of GHGs over a longer timeframe than a single day (e.g., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate effects.

On December 5, 2008, the SCAQMD adopted an interim CEQA GHG Significance Threshold for projects where SCAQMD is the lead agency (SCAQMD, 2008). This interim threshold is set at 10,000 metric tons of CO₂ equivalent emissions (MTCO₂eq) per year. Projects with incremental increases below this threshold will not be deemed to be cumulatively considerable.

The Program EIR for the 2012 AQMP concluded that implementing the control measures in the 2012 AQMP would provide a comprehensive ongoing regulatory program that would reduce overall GHGs emissions in the District.

GHG emissions were calculated for all on-road vehicles transporting workers, vendors, and material delivery associated with the limited control equipment (plastic shrouding/partitioning) required by the proposed project. Additionally, GHG emissions were calculated for additional operational requirements (application of soil stabilizers and additional monitoring sample collection/delivery) from the proposed project. Table 2-4 provides the total construction CO₂E emissions that could occur as a result of the proposed project. Detailed GHG calculations can be found in Appendices B and C. As shown in Table 2-4, GHG emissions generated by the construction and operational activities are expected to be relatively small, much less than 10,000 metric tons per year (SCAQMD’s GHG significance threshold), and, therefore, not significant.

**Table 2-4
Overall CO₂ Equivalent (eq) Increases Due to Construction and Operational Activities
(metric tons/year)¹**

	CO₂	CH₄	CO₂eq
Annual CO₂eq Emission Increases Due to:	lb/day	lb/day	MT/year
Proposed Construction Activities	1,393	0.05	1.27
Proposed Operational Activities	2,182	0.12	1.99
	Total		3.26

¹ 1 metric ton = 2,205 pounds

Since the proposed project is not expected to generate significant construction or operation-related GHG emissions, cumulative GHG adverse impacts from the proposed project are not considered significant or cumulatively considerable.

Indirect GHG and Criteria Pollutant Emissions from Electricity Consumption

Indirect GHG and criteria pollutant emissions are expected from the generation of electricity to operate new equipment that occurs off-site at electricity generating facilities (EGFs). Emissions from electricity generating facilities at their maximum permitted capacity are already evaluated in the CEQA documents for those projects when they are built or modified. The analysis in Section VI. Energy- b), c) and d) demonstrated that there is not likely to be increased electricity consumption from the proposed rule.

Under the SCAQMD Regional Clean Air Incentives Market (RECLAIM) program (that regulates NOx and SOx emissions), EGFs were provided annual allocations of NOx and SOx emissions that typically decline annually. However, the proposed project does require an increase in energy generation and any increase in emissions from generating additional energy (See Section VI. Energy for impacts) from the EGFs would be required to offset any potential NOx and SOx emission increases under the RECLAIM program and other pollutants under the New Source Review Project. Thus, air quality impacts from energy generation are anticipated to be to less than significant impacts.

Conclusion

Based on the preceding evaluation of potential air quality impacts, SCAQMD staff has concluded that the proposed project does not have the potential to generate significant adverse air quality impacts. Since no significant adverse air quality and greenhouse gases impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by §404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

IV. a), b), c), & d) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment’s (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated outside of existing building footprints as a result of PAR 1156. The biological resources have already been disturbed or removed at the existing facilities. As a result, the proposed project would not directly or indirectly affect any new or existing species identified as a candidate, sensitive or special status species, riparian habitat, federally protected wetlands, or migratory corridors. For this same reason, the proposed project is not expected to adversely affect special status plants, animals, or natural communities.

IV. e) & f) The proposed project would not conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans because it would not cause new development. All existing facilities are already developed and the proposed project will not result in the need for construction. Additionally, the proposed project would not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan for the same reason identified in Item IV. a), b), c), and d) above. Likewise, the proposed project would not in any way impact wildlife or wildlife habitat.

Based upon these considerations, significant adverse biological resources impacts are not anticipated and will not be further analyzed in this final EA. Since no significant adverse biological resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource, site, or feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group.
- Unique paleontological resources are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

V. a), b), c), & d) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. Furthermore, all existing affected facilities have already been developed and would not require disturbing native soils that may contain cultural resources.

Since no activities requiring native soil disturbance would be associated with the implementation of the proposed project, no impacts to historical or cultural resources are anticipated to occur. Further, the proposed project is not expected to require any major physical changes to the environment, which may disturb paleontological or archaeological resources or disturb human remains interred outside of formal cemeteries.

V. e) The proposed project is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, the proposed project is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. For these reasons, the proposed project is not expected to cause any substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074.

It is important to note that as part of releasing this CEQA document for public review and comment, the SCAQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code §21080.3.1 (b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project.

In the event that a Tribe submits a written request for consultation during this 30-day period, the SCAQMD will initiate a consultation with the Tribe within 30 days of receiving the request in accordance with Public Resources Code §21080.3.1 (b). Consultation ends when either: 1) both parties agree to measures to avoid or mitigate a significant effect on a Tribal Cultural Resource and agreed upon mitigation measures shall be recommended for inclusion in the environmental document [see Public Resources Code §21082.3 (a)]; or, 2) either party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached [see Public Resources Code §21080.3.2 (b)(1)-(2) and §21080.3.1 (b)(1)].

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing the proposed project and will not be further assessed in this final EA. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Conflict with adopted energy conservation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the need for new or substantially altered power or natural gas utility systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Create any significant effects on local or regional energy supplies and on requirements for additional energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create any significant effects on peak and base period demands for electricity and other forms of energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with existing energy standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts to energy and mineral resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

VI. a) & e) The proposed project does not require any action which would result in any conflict with an adopted energy conservation plan or violation of any energy conservation standard. PAR 1156 is not expected to conflict with adopted energy conservation plans because existing affected facilities would be expected to continue implementing any existing energy conservation plans.

The proposed project is not expected to cause new development outside of the footprint of the affected facilities. The local jurisdiction or energy utility sets standards (including energy conservation) and zoning guidelines regarding new development and will approve or deny applications for building new equipment at the affected facility.

As a result, the proposed project would not conflict with energy conservation plans, use non-renewable resources in a wasteful manner, or result in the need for new or substantially altered power or natural gas systems.

VI. b), c) & d) There is not expected to be an increase in electricity consumption associated with the continued ambient air monitoring, because fenceline monitors will likely be battery powered and are already in use. Diesel fuel would be consumed by trucks delivering the plastic shrouding / partitioning materials to the facilities and gasoline fuel would be consumed by the workers’ vehicles installing control materials and trips required to collect the samples and to send to the lab for analysis. The following sections evaluate the various forms of energy sources affected by the proposed project.

Petroleum Fuels: During the construction phases, diesel and gasoline fuel will be consumed in delivery trucks and construction workers’ vehicles traveling to and from the two affected sites. To estimate “worst-case” energy impacts associated with the construction phase for the proposed project, the SCAQMD assumed that shrouding / partitioning material would be installed at both affected facilities simultaneously. The details of the construction scenarios are included in Appendix B.

To estimate construction workers’ fuel usage per commute round trip, the SCAQMD assumed that workers’ vehicles would get 20 miles to the gallon and would travel 50 miles round trip to and from the construction site in one day. Table 2-5 lists the projected energy impacts associated with the construction and installation at the two affected facilities at any given time.

**Table 2-5
Total Projected Fuel Usage for Construction Activities**

Overall Construction Activity	Equipment Type	Total Diesel Fuel Use (gal)	Total Gasoline Fuel Use (gal)
Diesel	Heavy-Heavy Duty Delivery Truck	26.67	N/A
Gasoline	Mixed Passenger Worker Vehicle	N/A	50

* Assume that delivery trucks use diesel and get 15 miles/gallon traveling 100 miles roundtrip; 2 locations
 ** Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.

Additionally, diesel fuel will be used by the spraying trucks used to apply additional soil stabilizers and gasoline fuel will be consumed in workers’ vehicles operating the spraying trucks and collecting/delivering additional samples. The details of the operational scenario are included in Appendix C. Table 2-6 lists the projected energy impacts associated with operational activities required by the proposed project.

**Table 2-6
Total Projected Fuel Usage for Operational Activities**

Overall Construction Activity	Equipment Type	Total Diesel Fuel Use (gal)	Total Gasoline Fuel Use (gal)
Diesel	Heavy-Heavy Duty Spraying Truck	79.04	N/A
Gasoline	Mixed Passenger Worker Vehicle-Spraying Truck Operator	N/A	10
Gasoline	Mixed Passenger Worker Vehicle-Sample Collection / Delivery	N/A	10

* Assume that spraying vehicle use diesel and operate 8 hours/day (2 facilities).

** Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.

Based on the above information, the proposed project is not expected to generate significant adverse energy resources impacts and will not be discussed further in this final EA. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

Potentially Significant Impact Less Than Significant With Mitigation Less Than Significant Impact No Impact

VII. GEOLOGY AND SOILS. Would the project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
• Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
• Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion

VII. a) Southern California is an area of known seismic activity. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The local city or county is responsible for assuring that a proposed project complies with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard

safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: 1) resist minor earthquakes without damage; 2) resist moderate earthquakes without structural damage but with some non-structural damage; and 3) resist major earthquakes without collapse but with some structural and non-structural damage.

The Uniform Building Code bases seismic design on minimum lateral seismic forces (“ground shaking”). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site. Accordingly, buildings and equipment at existing facilities affected by PAR 1156 are likely to conform with the Uniform Building Code and all other applicable state codes in effect at the time they were constructed.

PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment’s (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. Therefore, no major change in geological existing setting is expected. Consequently, the proposed project is not expected to expose persons or property to new geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structure to the risk of loss, injury, or death involving seismic-related activities is not anticipated and will not be further analyzed in this final EA.

VII. b), c), d) & e) Since the proposed project would affect two existing facilities, it is expected that the soil types present at the affected facilities that are susceptible to expansion or liquefaction would be considered part of the existing setting. Implementation of PAR 1156 would not require construction outside of building footprints; therefore, new subsidence impacts are not anticipated since no major excavation or fill activities are expected to occur at affected facilities. Further, the proposed project does not involve the removal of underground products (e.g., water, crude oil, et cetera) that could produce new, or make worse existing subsidence effects. Additionally, the affected areas are not envisioned to be prone to new risks from landslides or have unique geologic features, since the affected facilities are located in highly industrial/commercial areas where such features have already been altered or removed. Finally, since adoption of the proposed project would be expected to affect operations at primarily existing facilities, the proposed project is not expected to alter or make worse any existing potential for subsidence, liquefaction, etc.

Based on the above discussion, the proposed project is not expected to have an adverse impact on geology or soils. Since no significant adverse impacts are anticipated, this environmental topic will not be further analyzed in the final EA. No mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
h) Significantly increased fire hazard in areas with flammable materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion

VIII. a, b) & c) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment’s (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. If the fence-line threshold is exceeded, the owner/operator of the affected property will have to submit a compliance which includes measures to reduce the on-site fugitive emissions. Therefore, the proposed project will not create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials.

Adoption of the proposed rule would establish procedures to reduce Cr⁺⁶ emissions from facilities even after closure. Therefore, there is little likelihood that affected facilities will emit new hazardous emissions or handle hazardous materials, substances or waste within one-quarter mile of an existing or proposed school as a result of implementing the proposed project.

VIII. d) It is not anticipated that the proposed project will alter in any way how operators of facilities who are affected by PAR 1156 manage their hazardous wastes. Government Code §65962.5 typically refers to a list of facilities that may be subject to Resource Conservation and Recovery Act (RCRA) permits. For any facilities affected by the proposed project that are on the Government Code §65962.5 list, it is anticipated that they would continue to manage any and all hazardous materials and hazardous waste, in accordance with federal, state and local regulations.

Riverside Cement (1500 Rubidoux Ave.) was listed on the Department of Toxic Substances Control (DTSC) Envirostor database as an “evaluation” site. According to the listing, the site was screened by the EPA in 2007. No further information was available.

California Portland Cement Company was not identified on the Envirostor database. However, a “closed” rail site (Site ID- 400217) was identified as being located within the site boundary. The database identified this listing as “Inactive facility - clean closed” and indicated that the facility has completed its closure activities.

VIII. e) Neither of the affected facilities is within two miles of an airport or private air strip; therefore, implementation of the proposed project is not expected to create any additional safety hazards for people residing or working in the project area.

VIII. f) The proposed project does not contain any provisions which will impair implementation of, or physically interfere with any adopted emergency response plan or emergency evacuation plan. Since the proposed project does not involve the change in current uses of any hazardous materials, or generate any new hazardous waste, no changes to emergency response plans are anticipated.

VIII. g) The two affected facilities are located in developed urban areas, where wildlands are not prevalent, risk of loss or injury associated with wildland fires is not expected as a result of implementing the proposed project.

VIII. h) Affected facilities must comply with all local and county requirements for fire prevention and safety. The proposed project does not require any activities which would be in conflict with fire prevention and safety requirements, and thus would not create or increase fire hazards at these existing facilities.

Pursuant to local and county fire prevention and safety requirements, facilities are required to maintain appropriate site management practices to prevent fire hazards. The proposed project will not interfere with fire prevention practices.

In conclusion, potentially significant adverse hazard or hazardous material impacts resulting from adopting and implementing the proposed project are not expected and will not be considered further. No mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
g) Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion

PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment's (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. If the fence-line threshold is exceeded, the owner/operator of the affected property will have to submit a compliance which includes measures to reduce the on-site fugitive emissions.

IX. a) & f) No additional amount of wastewater generation is expected from the implementation of the proposed project. Therefore, there would be no impact on the current wastewater infrastructure. The proposed project is not expected to cause potentially affected facilities to violate any water quality standard or wastewater discharge requirements. The adoption of the proposed project is not expected to have significant adverse water demand or water quality impacts for the following reasons:

- The proposed project does not increase total demand for water by more than 5,000,000 gallons per day (or 262,820 gallons per day of potable water).
- The proposed project does not require construction of new water conveyance infrastructure.
- The proposed project does not create a substantial increase in mass inflow of effluents to public wastewater treatment facilities.
- The proposed project does not result in a substantial degradation of surface water or groundwater quality.
- The proposed project does not result in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The proposed project does not result in alterations to the course or flow of floodwaters.

IX. b) Because the proposed requirements of PAR 1156 do not rely on water, no increase to any affected facilities' existing water demand is expected. No additional watering requirements are currently being proposed beyond those in the current rule. Therefore, implementation of PAR 1156 will not increase demand for, or otherwise affect groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. In addition, implementation of PAR 1156 will not increase demand for water from existing entitlements and resources, and will not require new or expanded entitlements. No provisions of the proposed rule are expected to interfere with groundwater recharge. Therefore, no water demand impacts are expected as the result of implementing PAR 1156.

IX. c), d), & e) Implementation of the proposed project will occur at existing facilities that are paved and have drainage infrastructure in place. Any modifications required by the proposed project are expected to take place within the existing footprints of the affected facilities, which are already completely developed with existing storm water collection systems. Therefore, no change to existing storm water runoff, drainage patterns, groundwater characteristics, or flow are expected.

IX. g), h), & i) The proposed project will not require construction of new housing, and all construction activities associated with PAR 1156 are expected to take place at existing facilities that are already developed. Therefore, the proposed project is not expected to generate construction of any new structures in 100-year flood areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood delineation map. Further, the proposed project is not expected to require additional operational workers at affected facilities. As a result, the proposed project is not expected to expose people or structures to significant new flooding risks, or make worse any existing flooding risks. Finally, the proposed project will not affect in any way any potential flood hazards inundation by seiche, tsunami, or mud flow that may already exist relative to existing facilities or create new hazards at existing facilities.

The proposed project is not expected to generate a substantial amount of new storm water runoff. Therefore, no new storm water discharge treatment facilities or modifications to existing facilities will be required due to the implementation of the proposed project. Accordingly, the proposed project is not expected to generate significant adverse impacts relative to construction of new storm water drainage facilities.

Based upon these considerations, significant hydrology and water quality impacts are not expected from the implementation of the proposed project and will not be further analyzed in this final EA. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING.				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion

X. a) Adoption of the proposed rule would establish procedures to reduce Cr⁺⁶ emissions from facilities even after closure. Since all construction activities are expected to take place at existing facilities that are already developed, implementation of the proposed project will not require or result in physically dividing an established community.

X. b) There are no provisions in the proposed project that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by the proposed project. Affected facilities would have to comply with local ordinances and land use requirements. Therefore, as already noted in the discussion under “Biological Resources,” the proposed project would not affect any habitat conservation or natural community conservation plans, or agricultural resources or operations, and would not create divisions in any existing communities. Present or planned land uses in the region would not be significantly adversely affected as a result of implementing the proposed project.

Based upon these considerations, significant adverse land use and planning impacts are not expected from the implementation of the proposed project and will not be further analyzed in this final EA. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion

XI. a) & b) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment’s (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. There are no provisions in the proposed project that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Based upon these aforementioned considerations, significant mineral resources impacts are not expected from the implementation of the proposed project. Since no significant mineral resources impacts were identified, no mitigation measures are necessary or required.



	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of permanent noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
d) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Noise impact will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

XII. a) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment’s (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Any operational requirements imposed by the proposed project would not be expected to generate noise above the existing setting. All of the activities required by the proposed project are expected to occur at the two affected existing facilities. Thus, the proposed project is not expected to expose persons to the generation of excessive noise levels above current levels because no change in current operations is expected to occur as a result of the proposed project. It is expected that any facility affected by the proposed project would continue complying with all existing local noise control laws or ordinances.

XII. b) The proposed project is not anticipated to expose people to or generate excessive groundborne vibration or groundborne noise levels since no heavy construction is required for compliance with PAR 1156.

XII. c) A permanent increase in ambient noise levels at the affected locations above existing levels is not expected because the proposed project does not contain any operational requirements that would generate additional noise beyond existing levels. Therefore, the existing noise levels are unlikely to change and raise ambient noise levels in the vicinities of affected facilities to above a level of significance in response to implementing the proposed project.

XII. d) There are no airports located within two miles of the two affected facilities and there are no new noise impacts expected as a result of the proposed project to affect the operations of the airport. Therefore, the proposed project is not expected to expose people residing or working in the affected facilities vicinities to excessive noise levels. See also the response to item XII.a).

Based upon these considerations, significant adverse noise impacts are not expected from the implementation of the proposed project and are not further evaluated in this final EA. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING.				
Would the project:				
a) Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

XIII. a) PAR 1156 includes requirements for owners/operators of the affected properties before and after facility closure, as well as provisions for a reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. Additionally, the proposed project would revise the current Cr⁺⁶ ambient air monitoring fence-line threshold to reflect the Office of Environmental Health Hazard Assessment’s (OEHHA) new risk assessment guidelines, revise criteria to validate duplicate particulate matter (PM) samples, and add provisions for a dust mitigation plan prior to land disturbing activities occurring on the property after facility closure. Therefore, there is no construction anticipated as a result of PAR 1156. However, if any minor modifications are necessary to the two affected facilities, it is expected that workers can be drawn from the existing labor pool in southern California. Therefore, the proposed project is not anticipated to generate any significant effects, either direct or indirect, on the District's population or population distribution as no additional operational workers are

anticipated to be required at the affected facilities. Human population within the jurisdiction of the SCAQMD is anticipated to grow regardless of implementing the proposed project. As such, implementation of the proposed project will not result in changes in population densities or induce significant growth in population.

XIII. b) The affected facilities are already developed and compliance with PAR 1156 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of people elsewhere.

Based upon these considerations, significant adverse population and housing impacts are not expected from the implementation of the proposed project and are not further evaluated in this final EA. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.



	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the

construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

XIV. a) & b) Adoption of the proposed rule would minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr⁺⁶ ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. There will be a compliance plan that is required if the ambient monitoring limit is exceeded. All new requirements would be expected to be compliant with fire department standards, therefore, they would not increase the risk of fire to occur. No other physical modifications or changes associated with the proposed project are expected and no flammable substances are necessary to comply with the proposed project. As such, the proposed project will not increase the chances for fires or explosions that could affect local fire departments. Finally, PAR 1156 is not expected to increase the need for security at affected facilities, which could adversely affect local police departments. Because the proposed project does not require or involve the use of new hazardous materials or generate new hazardous waste, it will not generate an emergency situation that would require additional fire or police protection, or impact acceptable service ratios or response times.

XIV. c), d), & e) As indicated in discussion under item XIII. Population and Housing, implementing the proposed project would not induce population growth or dispersion because no additional operational workers are expected to be needed at the existing affected facilities and construction workers will be temporary, not permanent. Therefore, with no increase in local population anticipated as a result of adopting and implementing the proposed project, additional demand for new or expanded schools or parks is also not anticipated. As a result, no significant adverse impacts are expected to local schools or parks.

Based upon these considerations, significant adverse public services impacts are not expected from the implementation of the proposed project and are not further evaluated in this final EA. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

XV. a) & b) As discussed under “Land Use and Planning” (Section X) above, there are no provisions in the proposed project that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments. No land use or planning requirements would be altered by the adoption of the proposed project, which only affects already developed cement producing facilities. Further, the proposed project would not affect District population growth or distribution (see “Population and Housing”- Section XIII) in ways that could increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or expansion of existing recreational facilities that might have an adverse physical effect on the environment because it would not directly or indirectly increase or redistribute population.

Based upon these considerations, significant recreation impacts are not expected from the implementation of the proposed project. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID/HAZARDOUS WASTE.				
Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance Criteria

The proposed project impacts on solid/hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

XVI. a) & b) Adoption of the proposed rule would minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr⁺⁶ ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr⁺⁶ monitoring stations and elimination of Cr⁺⁶ ambient monitoring under specific conditions. There will be a compliance plan that is required if the ambient monitoring limit is exceeded. No additional waste will be diverted to landfills as a result of the proposed project. As a result, no substantial change in the amount or character of solid or hazardous waste streams is expected to occur.

Sanitation districts forecast future landfill capacity and encourage recycling. Any portions of spent control equipment (if needed) in the future that cannot be recycled are expected to be able to be disposed of in the available landfill capacity. Additionally, no waste is expected to be generated by the proposed project. The proposed project is not expected to increase the volume of solid or hazardous wastes from the two affected facilities, require additional waste disposal capacity, or generate waste that does not meet applicable local, state, or federal regulations.

Based upon these considerations, the proposed project is not expected to increase the volume of solid or hazardous wastes that cannot be handled by existing municipal or hazardous waste disposal facilities, or require additional waste disposal capacity. Further, implementing the proposed project is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations. Since no solid/hazardous waste impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION/TRAFFIC.				
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Impacts on transportation/traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day
- Increase customer traffic by more than 700 visits per day.

Discussion

XVII. a) & b) Adoption of the proposed rule would minimize potential air quality impacts from cement facility closure and ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed project includes requirements for owners/operators of the affected property before and after facility closure, as well as conditions for potential reduction in the number of Cr^{+6} monitoring stations and elimination of Cr^{+6} ambient monitoring under specific conditions. The additional amount of trips required for monitoring sample collection (2 per week, per facility), if required, are not expected to increase congestion or diminish the level of service of any roadways in the vicinity of the two affected facilities.

Implementation of the proposed project would not result in a net change or cause any additional transportation demands or services. Similarly, the implementation of the proposed project is not expected to adversely affect circulation patterns on local roadways or the level of service at intersections near affected facilities.

Implementation of the proposed rule amendments would not require any construction activities. Since no construction-related trips and no additional operational-related trips per facility are anticipated, the adoption of the proposed project is not expected to significantly adversely affect circulation patterns on local roadways or the level of service at intersections near affected facilities.

XVII. c) Adoption of the proposed rule would minimize potential air quality impacts from cement facility closure and to ensure long-term air quality and public protection, while streamlining Cr^{+6} ambient monitoring. The proposed project will not require operators of existing facilities to construct buildings or other structures that could interfere with flight patterns, so the height and appearance of the existing structures are not expected to change. Therefore, implementation of the proposed project is not expected to adversely affect air traffic

patterns. Further, the proposed project will not affect in any way air traffic in the region because it will not require transport of any materials by air.

XVII. d) No physical modifications to roadways are expected to occur by implementing the proposed project. Therefore, no offsite modifications to roadways are anticipated for the proposed project that would result in an additional design hazard or new incompatible uses.

XVII. e) All potential physical changes caused by implementation of the proposed project are expected to occur within the existing boundaries of the affected facilities. As a result, the proposed project is not expected to adversely impact existing emergency access.

XVII. f) All potential physical changes caused by implementation of the proposed project are expected to occur within the existing boundaries of the affected facilities. No changes to the parking capacity at or in the vicinity of the affected facilities are expected. Therefore, no shortage of parking spaces is expected. Further, the proposed project is not expected to require additional operational workers, so additional parking capacity will not be required. Therefore, the proposed project is not expected to adversely impact on- or off-site parking capacity. The proposed project has no provisions that would conflict with alternative transportation, such as bus turnouts, bicycle racks, et cetera.

Based upon these considerations, the proposed project is not expected to generate significant adverse project-specific or cumulative transportation/traffic impacts and, therefore, this topic will not be considered further. Since no significant transportation/traffic impacts were identified, no mitigation measures are necessary or required.



	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVIII. a) As discussed in the “Biological Resources” section, the proposed project is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because any minor physical modifications that may occur as a result of the proposed project would occur at two existing cement production facilities that have already been greatly disturbed and that currently do not support such habitats. Additionally, special status plants, animals, or natural communities are not expected to be found within close proximity to the two facilities affected by the proposed project.

XVIII. b) Based on the foregoing analyses, cumulative impacts in conjunction with other projects that may occur concurrently with or subsequent to the proposed project are not expected to adversely impact any environmental topic. Related projects to the currently proposed project include existing and proposed amended rules and regulations, as well as AQMP control measures, which produce emission reductions from most industrial and commercial sectors. Furthermore, because the proposed project does not generate significant project-specific impacts, cumulative impacts are not considered to be "cumulatively considerable" as defined by CEQA guidelines §15065(a)(3). For example, the environmental topics checked ‘No Impact’ (e.g., aesthetics, agriculture resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation and traffic) would not be expected to make any contribution to potential cumulative impacts whatsoever. Also, in the case of air quality impacts, the net effect of implementing the proposed project with other proposed amended rules and regulations, and AQMP control measures is an overall reduction in District-wide emissions, thus, contributing to the attainment of state and national ambient air quality standards. Therefore, it is concluded that the proposed project has no potential for significant cumulative or cumulatively considerable impacts in any environmental areas.

XVIII. c) Based on the foregoing analyses, the proposed project is not expected to cause significant adverse effects to human beings. Significant adverse air quality impacts are not expected from the implementation of the proposed project. Based on the preceding analyses, no significant adverse impacts to aesthetics, agriculture resources, air quality, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid/hazardous waste and transportation and traffic are expected as a result of the implementation of the proposed project.

As discussed in items I through XVIII above, the proposed project would have no potential to cause significant adverse environmental effects.

APPENDIX A

PROPOSED AMENDED RULE 1156 – FURTHER REDUCTIONS OF PARTICULATE EMISSIONS FROM CEMENT MANUFACTURING FACILITIES

In order to save space and avoid repetition, please refer to the latest version of Proposed Amended Rule 1156 located in the November 6, 2015 Governing Board Package.

APPENDIX B

CONSTRUCTION EMISSION CALCULATIONS

Construction Emissions

Installation of Plastic Shrouding / Partioning Material at Affected Facilities

Installation of Limited Dust Controls at 2

Affected Cement Manufacturing Facilities Construction Activity

Installing Plastic Shrouding / Partitioning Material around Bagging Operations and Doors

Construction Schedule - "Worst-case" Complete Installation at 2 Locations Simultaneously

Activity	Equipment Type	No. of Equipment	Hrs/day	Crew Size
On-Road Mobile Source Operations	Delivery Truck	2	-	2
On-Road Mobile Source Operations	Worker Vehicle	10	-	20

- Deliver the control materials

- Install Shrouding / Partitioning Materials

Construction Vehicle (Mobile Source) Emission Factors for Years 2010	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Construction Related Activity	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile
Offsite (Construction Worker Vehicle)	0.00066355	0.00614108	0.00060188	0.00001070	0.00009259	0.00006015	1.10192837	0.00005923
Offsite (Equipment Delivery Truck - HHDT)	0.00178608	0.00766891	0.02122678	0.00004082	0.00104715	0.00087977	4.20902225	0.00008369

Source: EMFAC 2007 (v2.3) Emission Factors (On-Road Vehicles, Scenario Year 2015)

Composite Emission Factors for Passenger Vehicle and Heavy-Heavy Duty Trucks for Scenario Year 2015

[http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/emfac-2007-\(v2-3\)-emission-factors-\(on-road\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/emfac-2007-(v2-3)-emission-factors-(on-road))

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	Trip Length (miles)
Offsite (Construction Worker)	20	25
Offsite (Delivery/Haul Truck - HHDT)	4	50

Incremental Increase in Offsite Combustion Emissions from Construction Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x Number of workers x Trip length (mile) = Offsite Construction Emissions (lbs/day)

Vehicle	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day	lb/day
Offsite (Construction Worker Vehicle)	0.33	3.07	0.30	0.01	0.05	0.03	550.96	0.03

Construction Emissions

Offsite (Delivery/Haul HHDT)	0.36	1.53	4.25	0.01	0.21	0.18	841.80	0.02
Vehicle TOTAL	0.69	4.60	4.55	0.01	0.26	0.21	1392.77	0.05

Total Incremental Combustion Emissions from Construction Activities (Construction Equipment, Trucks and Workers' Vehicles)

	VOC lb/day	CO lb/day	NOx lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day	CO2eq MT/year
TOTAL	0.69	4.60	4.55	0.01	0.26	0.21	1392.77	0.05	1.27
Significant Threshold	75	550	100	150	150	55	n/a	n/a	10,000
Exceed Significance?	NO	NO	NO	NO	NO	NO	n/a	n/a	NO

Construction Emissions

Total Increase in Fuel Usage From Construction Equipment and Workers' Vehicles

Overall Construction Activity	Total Project Hours of Operation	Equipment Type	Off-Road Fuel (gal/hr)	Total Diesel Fuel Use (gallons)	Total Gasoline Fuel Use (gals)
Workers' Vehicles* - Commuting	N/A	Mixed Passenger	N/A	N/A	50.00
Offsite Delivery Trucks**	N/A	Heavy-Heavy Duty Delivery Truck	N/A	26.67	N/A
TOTAL				26.67	50.00

*Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.

**Assume that delivery trucks use diesel and get 15 miles/gallon traveling 100 miles roundtrip; 2 locations

APPENDIX C

OPERATIONAL EMISSION CALCULATIONS

Operational Emissions

Application of Soil Stabilizers and Additional Sampling Trips at Affected Facilities

Application of Soil Stabilizers and Additional Sampling at Affected Cement Manufacturing Facilities

Construction Activity
Application of Additional Soil Stabilizers

Operation Schedule - "Worst-case" Complete Soil Stabilizer Application at 2 facilities simultaneously

Activity	Equipment Type	No. of Equipment	Hrs/day	Crew Size
Off-Road Mobile Source Operations	Application / Spraying Truck-Other Construction Equip. Composite	2	8	2
On-Road Mobile Source Operations	Worker Vehicle	2	-	2
On-Road Mobile Source Operations	Worker Vehicle	2	-	2

- Spray soil stabilizer into place

- Spraying vehicle operator

- Sample Pick-up and Delivery to Lab

2015 Construction Equipment Emission Factors	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Equipment Type*	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
Spraying Truck- Other Construction Equip. (composite)	0.0768	0.3645	0.6392	0.0013	0.0264	0.0264	123	0.0069

*Equipment is assumed to be diesel fueled.

Source: CARB's Off-Road Mobile Source Emission Factors for Scenario Year 2015 <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/off-road-mobile-source-emission-factors>

Construction Vehicle (Mobile Source) Emission Factors for Years 2015	VOC	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
Construction Related Activity	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile	lb/mile
Offsite (Construction Worker Vehicle- Spray Vehicle Operator)	0.00066355	0.00614108	0.00060188	0.00001070	0.00009259	0.00006015	1.10192837	0.00005923
Offsite (Worker Vehicle for Collecting Samples and Delivering to Lab)	0.00066355	0.00614108	0.00060188	0.00001070	0.00009259	0.00006015	1.10192837	0.00005923

Source: EMFAC 2007 (v2.3) Emission Factors (On-Road Vehicles, Scenario Year 2015)

[http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/emfac-2007-\(v2-3\)-emission-factors-\(on-road\)](http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/emfac-2007-(v2-3)-emission-factors-(on-road))

Operational Emissions

Construction Worker Number of Trips and Trip Length

Vehicle	No. of One-Way Trips/Day	Trip Length (miles)
Offsite (Construction Worker- Spray Vehicle Operator)	4	25
Offsite (Worker Vehicle for Collecting Samples and Delivering to Lab)	4	25

Incremental Increase in Onsite Combustion Emissions from Construction Equipment

Equation: Emission Factor (lb/hr) x No. of Equipment x Work Day (hr/day) = Onsite Construction Emissions (lbs/day)

Equipment Type	VOC lb/day	CO lb/day	NOx lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day
Spraying Truck- Other Construction Equip. (composite)	1.23	5.83	10.23	0.02	0.42	0.42	1961.57	0.11
Construction Equip TOTAL	1.23	5.83	10.23	0.02	0.42	0.42	1961.57	0.11

Incremental Increase in Offsite Combustion Emissions from Construction Vehicles

Equation: Emission Factor (lb/mile) x No. of One-Way Trips/Day x Number of workers x Trip length (mile) = Offsite Construction Emissions (lbs/day)

Vehicle	VOC lb/day	CO lb/day	NOx lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day
Offsite (Construction Worker- Spray Vehicle Operator)	0.07	0.61	0.06	0.00	0.01	0.01	110.19	0.01
Offsite (Worker Vehicle for Collecting Samples and Delivering to Lab)	0.07	0.61	0.06	0.00	0.01	0.01	110.19	0.01
Vehicle TOTAL	0.13	1.23	0.12	0.00	0.02	0.01	220.39	0.01

Total Incremental Combustion Emissions from Operational Activities (Soil Stabilization Equipment and Workers' Vehicles)

	VOC lb/day	CO lb/day	NOx lb/day	SOx lb/day	PM10 lb/day	PM2.5 lb/day	CO2 lb/day	CH4 lb/day	CO2eq MT/year
TOTAL	1.36	7.06	10.35	0.02	0.44	0.43	2181.95	0.12	1.99
Significant Threshold	75	550	100	150	150	55	n/a	n/a	10,000
Exceed Significance?	NO	NO	NO	NO	NO	NO	n/a	n/a	NO

Operational Emissions

Total Increase in Fuel Usage From Soil Stabilization Equipment and Workers' Vehicles

Overall Operational Activity	Total Project Hours of Operation	Equipment Type	Off-Road Fuel (gal/hr)*	Total Diesel Fuel Use (gallons)	Total Gasoline Fuel Use (gals)
Application of Additional Soil Stabilizer	16	Spraying Truck- Other Construction Equip. (composite)	2.47	79.04	N/A
Workers' Vehicles** - Spray Vehicle Operator	N/A	Mixed Passenger	N/A	N/A	10.00
Offsite (Worker Vehicle for Collecting Samples and Delivering to Lab)**	N/A	Heavy-Heavy Duty Delivery Truck	N/A	N/A	10.00
TOTAL				79.04	20.00

*Based on CARB's Off-Road Model (Version 2.0).

**Assume that construction workers' commute vehicles use gasoline and get 20 mi/gal and round trip length is 50 miles/phase.

***Assume that sample collection/delivery vehicles use gasoline and get 20 miles/gallon traveling 50 miles roundtrip; 2 locations

[↑ Back to Agenda](#)

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 37

PROPOSAL: Amend Regulation XX - Regional Clean Air Incentives Market
(RECLAIM)

(Staff is recommending that the public hearing on this item be continued to the December 4, 2015 Board Meeting.)

BOARD MEETING DATE: November 6, 2015

AGENDA NO. 38

PROPOSAL: Request to City of Diamond Bar to Provide Alternative Fuel Signage on City Streets 

SYNOPSIS: At the direction of the Board, staff initiated discussions with Gateway Corporation, the City of Diamond Bar (City) and Caltrans to place signs along the freeways and arterial roads surrounding SCAQMD Headquarters to direct drivers and fleet operators to the SCAQMD's CNG, hydrogen and electric charging stations. The City has an ordinance for off-site billboard signage that does not allow the typical signage for alternative fuel stations as used by Caltrans or other municipalities. The City staff requested that SCAQMD make a formal request to the City to consider alternatives under the existing ordinance or to amend its current sign ordinance, given the benefits of alternative fuel vehicles to the environment and the residents of the City. This action is to approve a letter from the Chairman to the City requesting the City's consideration of SCAQMD's proposal to install directional signage for the SCAQMD alternative fuel stations.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:

Authorize the Chairman to send the attached letter (Attachment A) to the City of Diamond Bar, requesting the City's consideration of SCAQMD's proposal regarding installation of directional signage for SCAQMD's alternative fuel stations.

Barry R. Wallerstein, D.Env.
Executive Officer

MMM:HH

Background

At the May 2015 Board meeting, staff was directed to pursue the posting of signs along the freeways and arterial roads surrounding SCAQMD Headquarters to direct drivers and fleet operators to the SCAQMD's CNG, hydrogen and electric charging stations.

There is a three-step process for the placement of signs around SCAQMD Headquarters. Relative to the SCAQMD CNG fueling station, the sign to be placed on the SCAQMD's property has been drafted based on the specifications provided by the Gateway Corporation and submitted to the Corporation for approval. The Gateway Corporation is expected to give its decision shortly. Freeway signage is under the authority of Caltrans. Caltrans indicated that they will be able to move forward with freeway signage after the City of Diamond Bar has given its approval for signs along city streets.

Staff has been in discussions with the City on receiving approval to install signs along city streets. The City has an ordinance for off-site billboard signage that does not allow the typical alternative fuel station signage as used by Caltrans or other municipalities. The City staff requested that SCAQMD make a formal request to the City to consider alternatives under the existing ordinance or to amend its current sign ordinance, given the benefits of alternative fuel and zero-emission vehicles to the environment and the residents of the City.

Proposal

A letter has been prepared to the City of Diamond Bar requesting that the City consider the SCAQMD's request for signage along city streets to direct drivers to the SCAQMD fueling sites. This action is to authorize the Chairman to send the letter (Attachment A) to the City of Diamond Bar.

Benefits to SCAQMD

The addition of signs along freeways and city streets will allow drivers in need of refueling to more readily locate the SCAQMD fueling stations. The expansion of the alternative fueling network including CNG, hydrogen and electric vehicle charging will help enable the penetration of cleaner and zero-emission vehicles into the South Coast Air Basin. Greater deployment of such vehicles is needed for the region to attain federal air quality standards.

Resource Impacts

There will be nominal administrative costs for permits and materials for the signs to be placed along freeways and city streets surrounding the SCAQMD Headquarters.

Attachment

Attachment A – Letter to City of Diamond Bar

ATTACHMENT A
DRAFT

November 6, 2015

The Honorable Steve Tye
Mayor, City of Diamond Bar
21810 Copley Drive
Diamond Bar, CA 91765

Dear Mayor Tye:

Request to the City of Diamond Bar to
Post Alternative Fuel Signs along City Streets

Southern California faces many challenges in order to meet federal air quality standards and the state's climate goals. Mobile source emissions, in particular passenger cars and heavy-duty trucks, are among the largest sources of emissions contributing to our air quality and climate problems. Greater use of alternative fuel vehicles and zero-emission vehicles will result in significant emission reductions needed to meet air quality standards and California's climate goals. The emission benefits from cleaner vehicles and zero-emission vehicles will benefit all residents of Southern California but, more importantly, will locally reduce air toxics emissions from harmful gasoline and diesel emissions. Unlike the vast number of conventional gasoline and diesel stations, the refueling network for alternative fuel and zero-emission vehicles is in a nascent stage, and needs to be expanded in order to meet the increased number of these vehicles.

The South Coast Air Quality Management District (SCAQMD) has been operating a compressed natural gas (CNG) refueling station at its headquarters for several years. The CNG station provides fuel to not only the SCAQMD's fleet of vehicles but also enables fleet operators, such as Valley Vista, Waste Management, and R.F. Dickson who provide commercial and residential solid waste collection and street sweeping services to the City, to conveniently refuel their vehicles and provide services to the City in an efficient manner. Other vehicles such as CNG taxicabs, school buses and the general public routinely refuel at the SCAQMD station.

The California legislature has placed a high priority on development of a hydrogen refueling network to enable the commercialization of fuel cell vehicles in the state and help meet California's climate goals. To assist with these goals, the SCAQMD installed a hydrogen refueling station at its headquarters which is open to the general public. The station is one of only two stations currently in commercial operation in the region. An additional 30 stations are expected to be built in the coming years in various municipalities throughout the region.

Additionally, to advance the deployment of battery electric and plug-in electric vehicles, we plan to significantly expand our existing network of electric vehicle charging stations by up to 70 units. The charging stations not only provide convenient electric vehicle charging to SCAQMD employees but also to employees working at nearby businesses and the general public. Many local residents are charging their electric vehicles at SCAQMD during the evening hours and on weekends.

On behalf of the SCAQMD Governing Board, I respectfully request that the City explore ways to allow posting of signage on city streets to direct fleet operators and the general public to our alternative fuel and electric vehicle stations. SCAQMD staff stands ready to work with City Manager Mr. DeStefano and his staff to allow posting such signage.

I look forward to working with the City on this very important request as we work towards clean air and meeting California's climate goals. Please do not hesitate to contact me or Dr. Barry Wallerstein, Executive Officer, at (909) 396-2100, if you or City staff have questions regarding our request.

Respectfully,

William A. Burke, Ed.D.
Chairman of the Board

BRW:MMM:HH

cc: James DeStefano, City Manager, Diamond Bar