



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 · [www.aqmd.gov](http://www.aqmd.gov)

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## A G E N D A

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### MEETING, DECEMBER 2, 2016

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.

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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](http://www.aqmd.gov)) or contact the Clerk of the Board, (909) 396-2500. Copies of revised agendas will also be available at the Board meeting.

**CALL TO ORDER**

- Pledge of Allegiance
- Opening Comments: William A. Burke, Ed.D., Chair  
Other Board Members  
Wayne Nastri, Acting Executive Officer
- Presentation to Outgoing Board Member Michael D. Antonovich **Burke**
- Recognize Employees with Twenty-Five, Thirty, Thirty-Five and Forty Years of Service **Burke**

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Staff/Phone (909) 396-

**CONSENT CALENDAR (Items 1 through 22)**

Note: Consent Calendar items held for discussion will be moved to Item No. 23

1. Approve Minutes of November 4, 2016 Board Meeting **Garzaro/2500**
  
2. Set Public Hearing February 3, 2017 to Adopt Draft Final 2016 Air Quality Management Plan **Fine/2239**

***This item will include a staff presentation on the status of the 2016 AQMP.***

The Draft Final 2016 Air Quality Management Plan (AQMP) has been developed in partnership with CARB, U.S. EPA, SCAG and stakeholders throughout the region, including input from local government, health and environmental organizations, and the business community. The AQMP is the legally enforceable blueprint for how to meet and maintain federal air quality standards. The 2016 AQMP identifies control measures needed to demonstrate attainment with the federal 8-hour and 1-hour ozone standards, and the annual and 24-hour PM2.5 standards in the South Coast Air Basin. (Reviewed: Mobile Source Committee, January 22, March 18, April 15, May 20, June 17, July 22, September 16 and October 21, 2016)

**Budget/Fiscal Impact**

3. Recognize Revenue and Appropriate Funds for U.S. EPA PAMS and Near-Road Monitoring Programs, Amend Technical Support Contracts for U.S. EPA PAMS, and Issue RFQ and Purchase Orders and/or Contracts for CNG Vehicles and Air Monitoring and Analysis Equipment **Miyasato/3249**

SCAQMD expects to be awarded Clean Air Act Section 105 Grant funds by the U.S. EPA in the estimated amount of \$1,217,822 for the 25th Year U.S. EPA PAMS Program. These actions are to: 1) recognize revenue and appropriate funds into the FY 2016-17 Budget for the 25th Year PAMS Program; 2) appropriate funds into the FY 2016-17 Budget for the U.S. EPA FY 2015-16 PAMS and Near-Road Monitoring Programs; 3) amend technical support contracts for the 25th Year PAMS Program; and 4) issue an RFQ and purchase orders for air monitoring equipment and CNG vehicles. (Reviewed: Administrative Committee, November 18, 2016; Recommended for Approval)
4. Transfer and/or Recognize Revenue and Appropriate Funding, Authorize Release of RFQ and Issue Purchase Orders **Miyasato/3249**

Air quality monitoring and laboratory-based sample analysis at SCAQMD continues to be an integral part of ongoing efforts to better characterize air quality and assess the effectiveness of air pollution reduction programs. While such monitoring and analysis efforts are given the highest priority, their effectiveness and staff efficiency can be enhanced by investing in new and updated laboratory instruments, field platforms and software that would allow for more reliable instrument performance, rapid response and reporting. These actions are to: 1) transfer and/or recognize revenue and appropriate funding to Science & Technology Advancement's and Information Management's FY 2016-17 Budgets; and 2) release an RFQ and issue purchase orders for laboratory and field equipment. (Reviewed: Administrative Committee, November 18 2016; Recommended for Approval)
5. Amend Contract for Tier 4 Passenger Locomotives **Minassian/2641**

Under the "Year 16" Carl Moyer Program Announcement released on March 7, 2014, the Southern California Regional Rail Authority (SCRRA) submitted a proposal requesting \$58.85 million to cofund the replacement of 17 and the purchase of 3 new Tier 4 locomotives. On September 4, 2015, the Board awarded \$22.85 million to SCRRA from the Carl Moyer Program AB 923 Fund (80), with a commitment to consider the remaining \$36 million over four phases. The SCAQMD's cost-share of this 129 million project is only for the replacement component of the project. This action is to amend SCRRA's contract adding an additional \$9 million for a revised total of \$31.85 million from the Carl Moyer Program AB 823 Fund (80). The remaining \$27 million requested by SCRRA will be considered over three phases in future Board requests. (Reviewed: Technology Committee, November 18, 2016; Recommended for Approval)

6. Issue Program Announcement for Low-Emission Leaf Blower Vendors  **Minassian/2641**

To follow up on the successful Leaf Blower Exchange Programs, staff proposes a similar incentive in the summer/fall of 2017 to generate cost-effective emission reductions. This action is to issue a Program Announcement to solicit competitive bids from manufacturers of low or zero-emission/low noise leaf blowers in sufficient quantities and at the lowest possible price. (Reviewed: Mobile Source Committee, November 18, 2016; Recommended for Approval)

7. Issue Program Announcement for Purchase of Electric School Buses  **Minassian/2641**

Since 2001, the SCAQMD has replaced approximately 1,600 pre-1994 school buses with alternative fuel buses and retrofitted nearly 3,400 more diesel school buses with particulate traps. Traditionally, the SCAQMD has funded the replacement of older diesel school buses only with the lowest certified commercially available alternative fuel school buses. According to CARB's latest revisions of the Lower-Emission School Bus Program Guidelines, the Carl Moyer Program AB 923 funds can be utilized to purchase electric school buses. This action is to issue a Program Announcement to solicit proposals from public school districts and joint power authorities to purchase electric school buses approved by CARB. (Reviewed: Technology Committee, November 18, 2016; Recommended for Approval)

8. Approve Trucks, Transport Refrigeration Units and Infrastructure Projects under Proposition 1B-Goods Movement Program  **Minassian/2641**

On June 3, 2016, the Board approved the issuance of a Program Announcement to solicit eligible truck projects, transport refrigeration units (TRUs) and related infrastructure for the Proposition 1B-Goods Movement Program. The Program Announcement closed on August 4, 2016. Staff has completed the evaluation of the eligible projects, subject to the final rank order approval by CARB. This action is to execute contracts for eligible trucks, TRUs and infrastructure projects, subject to the final rank order approval by CARB, until all program funds designated for truck projects and TRUs are exhausted from the Proposition 1B-Goods Movement Program Fund (81). Projects not selected for funding will remain on the ranked lists in the event funds are reallocated from projects that fall through or funding from other project categories become available. (Reviewed: Technology Committee, November 18, 2016; Recommended for Approval)

9. Issue RFP for Information Technology Review **O'Kelly/2828**

SCAQMD requires the services of qualified Information Technology (IT) audit professionals to perform an IT review to help determine opportunities for hardware, system and software modernization. This action is to issue an RFP for a technology review to evaluate the information technologies currently in place and those that are needed to support SCAQMD's business goals. (Reviewed: Administrative Committee, November 18, 2016; Recommended for Approval)

10. **Transfer Appropriations from General Fund Salaries and Employee Benefits Major Object to General Fund Services and Supplies Major Object** **O'Kelly/2828**

This item is to transfer appropriations from the General Fund Salaries and Employee Benefits Major Object to the General Fund Services and Supplies Major Object for unbudgeted needs. (Reviewed: Administrative Committee, November 18, 2016; Recommended for Approval)

11. **Amend Provisions of SCAQMD's Salary Resolution and Labor Contracts with Teamsters Local 911 and SCPEA Relating to Vacation Leave Balances** **O'Kelly/2828**

Due to unforeseen, high priority, operational needs, staff has been required to limit the use of vacation time this year. As a result, a number of employees will exceed the cap on vacation leave balances, and will be prohibited from accruing vacation time or will be required to forfeit vacation hours accrued. This proposal seeks approval of a one-time amendment of SCAQMD's Salary Resolution and the MOUs for represented employees, in order to suspend the limitations on vacation leave balances for 2016. (Reviewed: Administrative Committee, November 18, 2016; Recommended for Approval)

12. **Add and Delete Positions to Address Operational Needs** **Whynot/3104**

The Acting Executive Officer is proposing to add two positions to address anticipated operational needs for 2017. In order to assist with the Board's legislative priorities, including components of the AQMP, this action would add a Legislative Assistant position and delete a Staff Assistant position in the Legislative & Public Affairs/Media division. In addition, in order to assist with the Permit Backlog Reduction Action Plan, this action would add a Program Supervisor position and delete an Air Quality Analysis & Compliance Supervisor position in the Engineering & Permitting division. This action does not require any additional appropriation of funds to the current Fiscal Year Budget. (Reviewed: Administrative Committee, November 18, 2016; Recommended for Approval)

13. **Establish List of Prequalified Legal Counsel to Provide Employee and Labor Relations Legal Services** **Wiese/3460**

On September 2, 2016, the Board approved issuance of an RFP to prequalify outside legal counsel having expertise in handling employee and labor relations matters. The evaluation of responding firms has been completed. This action is to establish a list of prequalified counsel to advise and represent SCAQMD in employee and labor relations matters. (Reviewed: Administrative Committee, November 18, 2016; Recommended for Approval)

14. Amend Contract with Google for Targeted Outreach Utilizing YouTube Videos and Banner Ads **Atwood/3687**

In December 2015, the Board approved a one year, \$800,000 contract with Google for targeted outreach utilizing YouTube videos and banner ads to promote various SCAQMD programs. The award was based on a highly successful pilot program with Google in the fall of 2015. In April 2016, the Board approved an additional \$250,000 for targeted outreach through Google specifically for the wintertime Check Before You Burn program from November through February. Outreach through Google is targeted by using search words, ZIP codes, and other demographics, which has shown to be highly successful. This action is to amend the current contract with Google for an additional \$250,000 to continue targeted outreach for The Right to Breathe film. Funding for this effort will come from the BP/ARCO Settlement Fund (46). (No Committee Review)

**Items 15 through 22 - Information Only/Receive and File**

15. Legislative and Public Affairs Report **Alatorre/3122**

This report highlights the October 2016 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)

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

This reports the actions taken by the Hearing Board during the period of October 1 through October 31, 2016. (No Committee Review)

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

This reports the monthly penalties from October 1 through October 31, 2016, and legal actions filed by the General Counsel's Office from October 1 through October 31, 2016. An Index of District Rules is attached with the penalty report. (Reviewed: Stationary Source Committee, November 18, 2016)

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

This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between October 1, 2016 and October 31, 2016, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA. (Reviewed: Mobile Source Committee, November 18, 2016)

19. Rule and Control Measure Forecast **Fine/2239**  
This report highlights SCAQMD rulemaking activities and public workshops potentially scheduled for the year 2017. (No Committee Review)
20. Approve Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2014-15 **Fine/2239**  
This report contains data on the AB 2766 Subvention Fund Program for FY 2014-15 as requested by CARB. This action is to approve the AB 2766 Annual Report. (Reviewed: Mobile Source Committee, November 18, 2016; Recommended for Approval)
21. Annual Audited Financial Statements for FY Ended June 30, 2016 **O'Kelly/2828**  
This agenda item transmits the annual audited financial statements of the SCAQMD. The SCAQMD has received an unmodified opinion (the highest obtainable) on its financial statements. (Reviewed: Administrative Committee, November 18, 2016; Recommended for Approval)
22. Status Report on Major Projects for Information Management Scheduled to Start During First Six Months of FY 2016-17 **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 2016-17. (No Committee Review)
23. Items Deferred from Consent Calendar

### **BOARD CALENDAR**

24. Administrative Committee (Receive & File) **Chair: Burke Nastri/3131**
25. Investment Oversight Committee (Receive & File) **Chair: Antonovich O'Kelly/2828**
26. Mobile Source Committee (Receive & File) **Chair: Parker Fine/2239**
27. Stationary Source Committee (Receive & File) **Chair: B. Benoit Tisopulos/3123**

28. Technology Committee (Receive & File) Chair: J. Benoit Miyasato/3249
29. Mobile Source Air Pollution Reduction Review Committee (Receive & File) Board Liaison: Antonovich Hogo/3184
30. California Air Resources Board Monthly Report (Receive & File) Board Rep: Mitchell Garzaro/2500

**Staff Presentation/Board Discussion**

31. Consideration to Add Rule 444 – Open Burning to Rule Forecast Report Fine/2239

At its October 21, 2016 meeting, the Stationary Source Committee considered a request by the City of Newport Beach that Rule 444, which regulates open burning, be placed on the Rule Forecast calendar for 2017. Newport Beach has made this request because it seeks a reconsideration of the beach burning provisions of Rule 444, which the Board adopted in 2013. (Reviewed: Stationary Source Committee, October 21, 2016)

**PUBLIC HEARING**

32. Amend BACT Guidelines and Approve Charter for BACT Scientific Review Committee Miyasato/3249

Periodically, staff proposes updates to Parts A and C of the Policy and Procedures of the BACT Guidelines for major and non-major polluting facilities as well as reports new Lowest Achievable Emission Rate and BACT determinations added to Parts B and D for major and non-major polluting facilities. Additionally, for the first time, the BACT Guidelines need to incorporate policy and procedures and determinations for facilities subject to prevention of significant deterioration for greenhouse gases. These actions are to amend the BACT Guidelines to make them consistent with recent changes to SCAQMD rules and regulations as well as state and federal requirements and approve a charter for the BACT Scientific Review Committee. (Reviewed: Stationary Source Committee, September 16 and November 18, 2016; Recommended for Approval)

**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 Acting Executive Officer, the District will enter into a contract with the Southern California Edison Company (Contract No. C17113). 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.

**CLOSED SESSION - (No Written Material)**

**Wiese/3460**

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

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

- Browning-Ferris Industries of California, Inc. v. South Coast Air Quality Management District, et al., Los Angeles Superior Court Case No. BS163753 (Sunshine Canyon Landfill);
- In the Matter of SCAQMD v. Browning-Ferris Industries of California, Inc. dba Sunshine Canyon Landfill, Hearing Board Case No. 3448-14;
- Communities for a Better Environment v. SCAQMD, Los Angeles Superior Court Case No. BS153472 (Phillips 66);
- Communities for a Better Environment v. SCAQMD, Los Angeles Superior Court Case No. BS161399 (RECLAIM);
- People of the State of California, ex rel SCAQMD v. Exide Technologies, Inc., Los Angeles Superior Court Case No. BC533528;
- Exide Technologies, Inc., Petition for Variance, SCAQMD Hearing Board Case No. 3151-31;
- In the Matter of SCAQMD v. Exide Technologies, Inc., SCAQMD Hearing Board Case No. 3151-29 (Order for Abatement);
- In re: Exide Technologies, Inc., U.S. Bankruptcy Court, District of Delaware, Case No. 13-11482 (KJC) (Bankruptcy case);
- In the Matter of SCAQMD v. Southern California Gas Company, Aliso Canyon Storage Facility, SCAQMD Hearing Board Case No. 137-76 (Order for Abatement);
- People of the State of California, ex rel SCAQMD v. Southern California Gas Company, Los Angeles Superior Court Case No. BC608322; Judicial Council Coordinated Proceeding No. 4861;
- In the Matter of SCAQMD v. Torrance Refining Company, LLC, SCAQMD Hearing Board Case No. 6060-5 (Order for Abatement);
- Fast Lane Transportation, Inc. et al. v. City of Los Angeles, et al., Contra Costa County Superior Court Case No. MSN14-0300 (formerly South Coast

Air Quality Management District v. City of Los Angeles, et al., Los Angeles Superior Court Case No. BS 143381) (SCIG);

- Refinery Safety Network v. SCAQMD, Hearing Board of SCAQMD; ExxonMobil Oil Corp., Los Angeles Superior Court Case No. BS161815;
- Sanchez v. South Coast Air Quality Management District, et al., Los Angeles Superior Court Case No. BS157931;
- SCAQMD v. U.S. EPA, D.C. Circuit Court Case No. 15-1115 (RFP for Coachella Ozone Rule); and
- SCAQMD v. U.S. EPA, D.C. Circuit Court Case No. 16-1364 (RFP for Coachella PM2.5 Implementation Rule).

#### 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).

#### PUBLIC EMPLOYEE EMPLOYMENT/APPOINTMENT

It is also necessary for the Board to recess to closed session pursuant to Government Code section 54957 as specified below:

Title: Executive Officer

#### CONFERENCE WITH NEGOTIATORS

It is also necessary to recess to closed session pursuant to Government Code Section 54957.6:

Agency Designated Representative: Kurt R. Wiese, General Counsel

Unrepresented Employee: Executive Officer

### **OPEN SESSION**

33. Approval of Contract and Public Employee Compensation (*No Written Material*)

**Burke**

Title: Executive Officer

### **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](mailto:cob@aqmd.gov) of 10 pages or less including attachment, in MS WORD, plain or HTML format will also be accepted by the Board and made part of the record if received no later than 5:00 p.m., on the Tuesday prior to the Board meeting.**

**ACRONYMS**

AQ-SPEC = Air Quality Sensor Performance Evaluation Center	NESHAPS = National Emission Standards for Hazardous Air Pollutants
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	ZEV = Zero Emission Vehicle
NATTS =National Air Toxics Trends Station	

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BOARD MEETING DATE: December 2, 2016

AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the November 4, 2016 meeting.

**RECOMMENDED ACTION:**

Approve Minutes of the November 4, 2016 Board Meeting.

Denise Garzaro,  
Clerk of the Boards

DG

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**FRIDAY, NOVEMBER 4, 2016**

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

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

Council Member Ben Benoit, Vice Chairman  
Cities of Riverside County

Supervisor Michael D. Antonovich  
County of Los Angeles

Council Member Joe Buscaino  
City of Los Angeles

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

Dr. Joseph K. Lyou  
Governor's Appointee

Mayor Larry McCallon  
Cities of San Bernardino County

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

Supervisor Shawn Nelson (arrived at 10:05 a.m.)  
County of Orange

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

Council Member Dwight Robinson  
Cities of Orange County

Supervisor Janice Rutherford  
County of San Bernardino

Member absent:

Supervisor John J. Benoit  
County of Riverside

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

- Pledge of Allegiance: Led by Councilman Robinson.
- Opening Comments

Councilwoman Mitchell. Announced that she attended a meeting of CAPCOA, along with two fellow CARB Board Members, where she had the opportunity to explain to the CAPCOA Executive Officers the challenges that the South Coast region is faced with and how the District works in conjunction with CARB on addressing those issues.

Councilman Cacciotti. Explained that Measure M will be considered by voters in Los Angeles County on November 8, 2016, which seeks to provide much-needed funding for increased public transit projects; noted that he met, along with Mr. Nastri, with the American Lung Association regarding the AQMP; and asked staff for a report on the study funded by the Board through UCLA regarding the impacts from exposure to CNG.

Dr. Parker. Noted that he participated in the CaFCP Executive Board meeting in Sacramento on October 18, 2016; and explained the progress that has been made towards availability of hydrogen-fueled vehicles and hydrogen fueling infrastructure.

Councilman Robinson. Commented that he had the opportunity to meet with Dr. Samuelson at UCI and learn about his National Fuel Cell Research Institute which was very informative; and thanked Chairman Burke for appointing him to the CNG Vehicle Partnership.

Chairman Burke. Announced that he attended the Taste of Soul event on October 15, 2016 in South Los Angeles, which was attended by well over 350,000 people. He expressed appreciation to staff for providing information to attendees regarding air quality issues.

Mr. Nastri. Noted that an errata sheet amending a portion of the October 7, 2016 Minutes was distributed to Board members and copies made available to the public.

## **CONSENT CALENDAR**

1. Approve Minutes of October 7, 2016 Board Meeting, subject to changes described in the errata sheet

**An errata sheet containing an amendment to pages 3 and 13 of the October 7, 2016 Minutes was provided to the Board Members and copies**

**made available to the public. The changes are as follows:**

Add the following at the beginning of Page 3 (after Opening Comments):

- **Presentation of Retirement Award to Sandra McDaniel**

**Chairman Burke presented a retirement award to Sandra McDaniel, Clerk of the Boards, in recognition of 32 years of dedicated District service.**

Modify the fourth and fifth paragraphs on Page 13 (on Item 33) to read:

Supervisor Rutherford noted that the visit to the Bay Area AQMD yielded an understanding of how to more effectively implement technology in the permitting process; and acknowledged that while introducing new technology comes with its challenges, it will be beneficial in the long run. **She commented that the Bay Area staff does not sweat the small stuff; they spend the bulk of their effort and public resources on dealing with the bigger issues and the bigger polluters. She encouraged the right attitude moving forward, advising we can get to the low hanging fruit on the backlog to get it cleared out, then focus on getting systems in place, our attitude in place, to then get to the bigger stuff that is going to be harder. She advised patience, as it would take a while.**

~~Supervisor Nelson expressed appreciation for staff for taking steps to address the longstanding backlog.~~

**Supervisor Nelson expressed his heartfelt thanks, adding his appreciation to staff for proving things do not have to be done a certain way just because that is the way they were done a year ago, and he thanked everyone for their comments.**

***Budget/Fiscal Impact***

2. Execute Contracts for Conducting Studies With Sensors and Advanced Optical Remote Sensing Technologies
3. Execute Contracts to Develop Eco-Friendly Intelligent Transportation System Strategies, Optimize Load-Balancing Strategies for Cargo Freight and Conduct Market Analysis for Zero Emission Heavy-Duty Trucks **E**
4. Execute Contract to Study Electrification Options of Energy Services for Environmental Justice Communities and Non-Attainment Areas **E**
5. Approve Additional Funds for Replacement of Onboard CNG Fuel Tanks on School Buses and Transfer Funds **E**
6. Issue RFP for AB 2588 Consultant Assistance

7. Amend Contracts for Legislative Representation in Washington, D.C.
8. Amend Contracts for Legislative Representation in Sacramento, California
9. Appropriate Funds and Execute Contract for Strategic Consulting Services
10. Amend Contracts to Provide Systems Development Services for Online Permitting Systems Implementation
11. Establish Los Angeles Department of Water and Power Variance Special Revenue Fund

**Action Item/No Fiscal Impact**

12. Establish Board Meeting Schedule for Calendar Year 2017
13. Annual Report on 457 Deferred Compensation Plan and Appoint Member to Deferred Compensation Plan Committee
14. Update to Facility Prioritization Procedures and Supplemental Guidelines for AB 2588 Program

**Items 15 through 21 - Information Only/Receive and File**

15. Legislative and Public Affairs Report
16. Hearing Board Report
17. Civil Filings and Civil Penalties Report
18. Lead Agency Projects and Environmental Documents Received by SCAQMD
19. Rule and Control Measure Forecast
20. Report of RFPs Scheduled for Release in November

21. Status Report on Major Projects for Information Management Scheduled to Start During First Six Months of FY 2016-17

### **BOARD CALENDAR**

23. Administrative Committee
24. Legislative Committee
25. Mobile Source Committee
26. Stationary Source Committee
27. Technology Committee
28. Mobile Source Air Pollution Reduction Review Committee
29. California Air Resources Board Monthly Report

Councilman Buscaino announced his abstention on Item No. 9 because he has received campaign contributions from John A. Perez.

Dr. Lyou announced his abstention on Item No. 3 because UCR (CE-CERT) and Volvo are potential sources of income to him; and on Item No. 11 because Los Angeles Department of Water and Power is a potential source of income to him.

Councilman Robinson and Councilman Benoit announced that they serve on the Transportation Committee for SCAG which is involved with Item No. 10.

Agenda Items 19 and 28 were withheld for discussion.

MOVED BY B. BENOIT, SECONDED BY CACCIOTTI, AGENDA ITEMS 1 THROUGH 18, 20 THROUGH 27 AND 29, APPROVED AS RECOMMENDED, ADOPTING RESOLUTION NO. 16-15, SETTING THE TIME AND PLACE OF REGULAR MEETINGS, WITH THE MODIFICATION TO ITEM 1 AS NOTED ON THE ERRATA SHEET AND SET FORTH ABOVE, RECEIVING AND FILING THE COMMITTEE AND CARB REPORTS, BY THE FOLLOWING VOTE:

AYES: Antonovich, B. Benoit, Burke, Buscaino (*except Item #9*), Cacciotti, Lyou (*except Items #3 and #11*), McCallon, Mitchell, Parker, Robinson and Rutherford.

NOES: None.

ABSTAIN: Buscaino (*Item #9 only*) and Lyou (*Items #3 and #11 only*).

ABSENT: J. Benoit and Nelson.

22. Items Deferred from Consent Calendar

19. Rule and Control Measure Forecast

Dr. Lyou expressed disappointment that Rules 1304.2 and 1304.3 are on the Rule Forecast report for consideration in January 2017, while there are more pressing matters to address including the finalization of the AQMP and the need for a rule to address toxics related to chrome plating facilities.

MOVED BY ROBINSON, SECONDED BY B. BENOIT, AGENDA ITEM 19 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: Antonovich, B. Benoit, Burke, Buscaino, Cacciotti, McCallon, Mitchell, Parker, Robinson and Rutherford.

NOES: Lyou.

ABSENT: J. Benoit and Nelson.

28. Mobile Source Air Pollution Reduction Review Committee

Dr. Lyou noted that the Committee's incentive proposal to fund heavy duty near-zero natural gas engines for transit buses and refuse trucks has been undersubscribed and suggested encouraging MSRC to alter the program to allow for the purchase of new cleaner refuse trucks with the remaining funds rather than simply funding repowering of older trucks.

Councilman Benoit confirmed that there are underutilized funds in the program; and noted that he would share Dr. Lyou's suggestion with the Committee.

Mayor Pro Tem Cacciotti suggested meeting with the local waste management companies to make them aware of the MSRC program and available funds.

MOVED BY LYOU, SECONDED BY B. BENOIT, AGENDA ITEM 28 APPROVED AS RECOMMENDED, RECEIVING AND FILING THE MSRC REPORT, BY THE FOLLOWING VOTE:

AYES: Antonovich, B. Benoit, Burke, Buscaino, Cacciotti, McCallon, Mitchell, Parker, Robinson and Rutherford.

NOES: None.

ABSENT: J. Benoit and Nelson.

**Staff Presentation/Board Discussion**

30. Advanced Technologies for Measuring Air Pollution: Status Update on SCAQMD's AQ-SPEC Sensor Testing Program

Andrea Polidori, Quality Assurance Manager, gave a presentation regarding the status of the program established to evaluate commercially available "low-cost" air quality sensors.

Supervisor Antonovich inquired whether this type of technology would work for Aliso Canyon residents.

Dr. Polidori explained that there currently is not a low-cost methane sensor available but there is the potential for similar monitoring in the future.

Chairman Burke commented that earlier in his term on the Board he had envisioned that technology would be so advanced by this point in time, that there would be wireless monitoring systems at key locations in the District with resulting information available on an instant basis.

Mr. Nastri acknowledged that the District is on the cusp of a technological revolution, adding that there are challenges to address including 1) how to handle the amount of voluminous data that would result in relation to health impacts as well as attainment; and 2) the lack of quality control and checks in place once monitors are available on a widespread basis.

Dr. Lyou commented that the Coalition for Clean Air has deployed some of these devices and will continue to do so; and acknowledged that there are concerns with how to manage and properly interpret the data.

(Supervisor Nelson arrived at 10:05 a.m.)

Chairman Burke mentioned that Dr. Parker was the assistant to the Chairman of the Board of IBM so he may have some insight on this topic; and suggested that staff connect with IBM to see if they might be able to provide useful information to address these questions.

Mr. Nastri confirmed that staff would reach out to IBM; and would welcome input from Dr. Parker on the subject.

INFORMATION ONLY; NO ACTION NECESSARY.

### **PUBLIC HEARING**

31. Amend Rule 1325 – Federal PM2.5 New Source Review Program and Amend Rule 1302 - Definitions

Tracy Goss, Planning and Rules Manager, gave the staff presentation on Item 31.

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

MOVED BY B. BENOIT, SECONDED BY PARKER, AGENDA ITEM NO. 31 APPROVED AS RECOMMENDED, ADOPTING RESOLUTION NO. 16-16, DETERMINING THAT THE PROPOSED AMENDMENTS TO RULE 1302 AND RULE 1325 ARE EXEMPT FROM THE REQUIREMENTS OF CEQA, AND AMENDING RULE 1302 – DEFINITIONS AND RULE 1325 – FEDERAL PM2.5 NEW SOURCE REVIEW PROGRAM, BY THE FOLLOWING VOTE:

AYES: Antonovich, B. Benoit, Burke, Cacciotti, Lyou, McCallon, Mitchell, Nelson, Parker, Robinson and Rutherford.

NOES: None.

ABSENT: J. Benoit and Buscaino.

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

Daryl Gale, Los Angeles resident, cautioned against the dangers of climate change.

Harvey Eder, Public Solar Power Coalition, commented on the economic impacts of premature deaths; and urged the District to focus on immediate total solar conversion.

Peter Herzog, BizFed/NAIOP, acknowledged the strides that have been made to achieve better air quality; stressed that mobile sources are a key component to reaching attainment; and highlighted the benefits of providing incentives for businesses to utilize up-to-date technology.

**CLOSED SESSION**

The Board recessed to closed session at 10:25 a.m., pursuant to Government Code sections:

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

Browning-Ferris Industries of California, Inc. v. South Coast Air Quality Management District, et al., Los Angeles Superior Court Case No. BS163753 (Sunshine Canyon Landfill);

In the Matter of SCAQMD v. Browning-Ferris Industries of California, Inc. dba Sunshine Canyon Landfill, Hearing Board Case No. 3448-14;

In the Matter of SCAQMD v. Southern California Gas Company, Aliso Canyon Storage Facility, SCAQMD Hearing Board Case No. 137-76 (Order for Abatement);

People of the State of California, ex rel SCAQMD v. Southern California Gas Company, Los Angeles Superior Court Case No. BC608322; Judicial Council Coordinated Proceeding No. 4861; and

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

Following closed session, Chief Deputy Counsel Barbara Baird announced that there were no reportable actions taken in closed session.

**ADJOURNMENT**

There being no further business, the meeting was adjourned by Barbara Baird at 11:00 a.m.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on November 4, 2016.

Respectfully Submitted,

Denise Garzaro  
Clerk of the Boards

Date Minutes Approved: \_\_\_\_\_

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Dr. William A. Burke, Chairman

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**ACRONYMS**

AQ-SPEC= Air Quality Sensor Performance Evaluation Center  
AQMP = Air Quality Management Plan  
CaFCP = California Fuel Cell Partnership  
CAPCOA = California Air Pollution Control Officers Association  
CARB = California Air Resources Board  
CEQA = California Environmental Quality Act  
CE-CERT= College of Engineering-Center for Environmental Research and Technology  
EV = Electric Vehicle  
FY = Fiscal Year  
NOx = Oxides of Nitrogen  
PM2.5 = Particulate Matter  $\leq$  2.5 microns  
RFP = Request for Proposals  
SCAG = Southern California Associated Governments  
U.S. EPA = United States Environmental Protection Agency

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 2

PROPOSAL: Set Public Hearing February 3, 2017 to:

Adopt Draft Final 2016 Air Quality Management Plan

The Draft Final 2016 Air Quality Management Plan (AQMP) has been developed in partnership with CARB, U.S. EPA, SCAG and stakeholders throughout the region, including input from local government, health and environmental organizations, and the business community. The AQMP is the legally enforceable blueprint for how to meet and maintain federal air quality standards. The 2016 AQMP identifies control measures needed to demonstrate attainment with the federal 8-hour and 1-hour ozone standards, and the annual and 24-hour PM2.5 standards in the South Coast Air Basin. (Reviewed: Mobile Source Committee, January 22, March 18, April 15, May 20, June 17, July 22, September 16 and October 21, 2016)

RECOMMENDED ACTION:

Set public hearing February 3, 2017 to adopt the Draft Final 2016 Air Quality Management Plan.

Wayne Nastri  
Acting Executive Officer

# 2016 Air Quality Management Plan

Los Angeles

San Bernardino

Orange

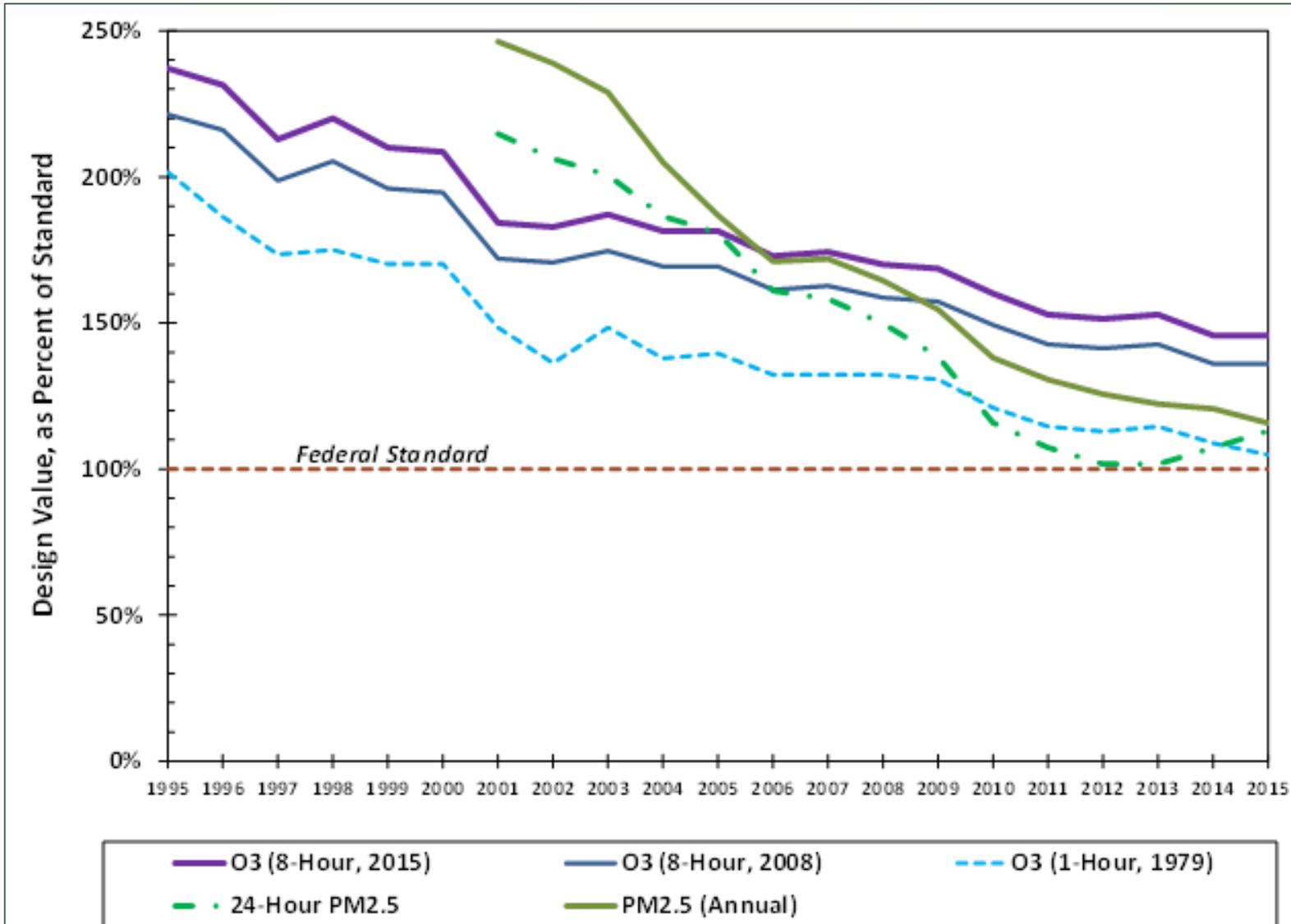
Riverside

2016 AQMP  
Set Hearing

December 2, 2016



# Ozone & PM<sub>2.5</sub> Design Value Trends



# Standards to be Addressed in Plan

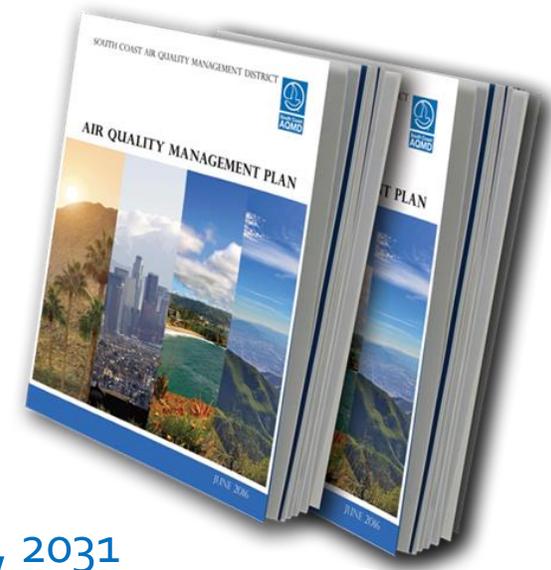
- Clean Air Act requires attainment of standard to be achieved as “expeditiously as practicable” but no later than attainment year listed.
- Integrated Plan to address all standards in 2016 AQMP

Criteria Pollutant	Standard	Classification	Latest Attainment Year	SIP Submittal Due Date
2008 8-hour Ozone	75 ppb	Extreme	2031	July 20, 2016
2012 Annual PM <sub>2.5</sub>	12 µg/m <sup>3</sup>	Serious*	2025	October 15, 2016
2006 24-hour PM <sub>2.5</sub>	35 µg/m <sup>3</sup>	Serious	2019	August 12, 2017
1997 8-hour Ozone	80 ppb	Extreme	2023	Update
1979 1-hour Ozone	120 ppb	Extreme	2022	Update

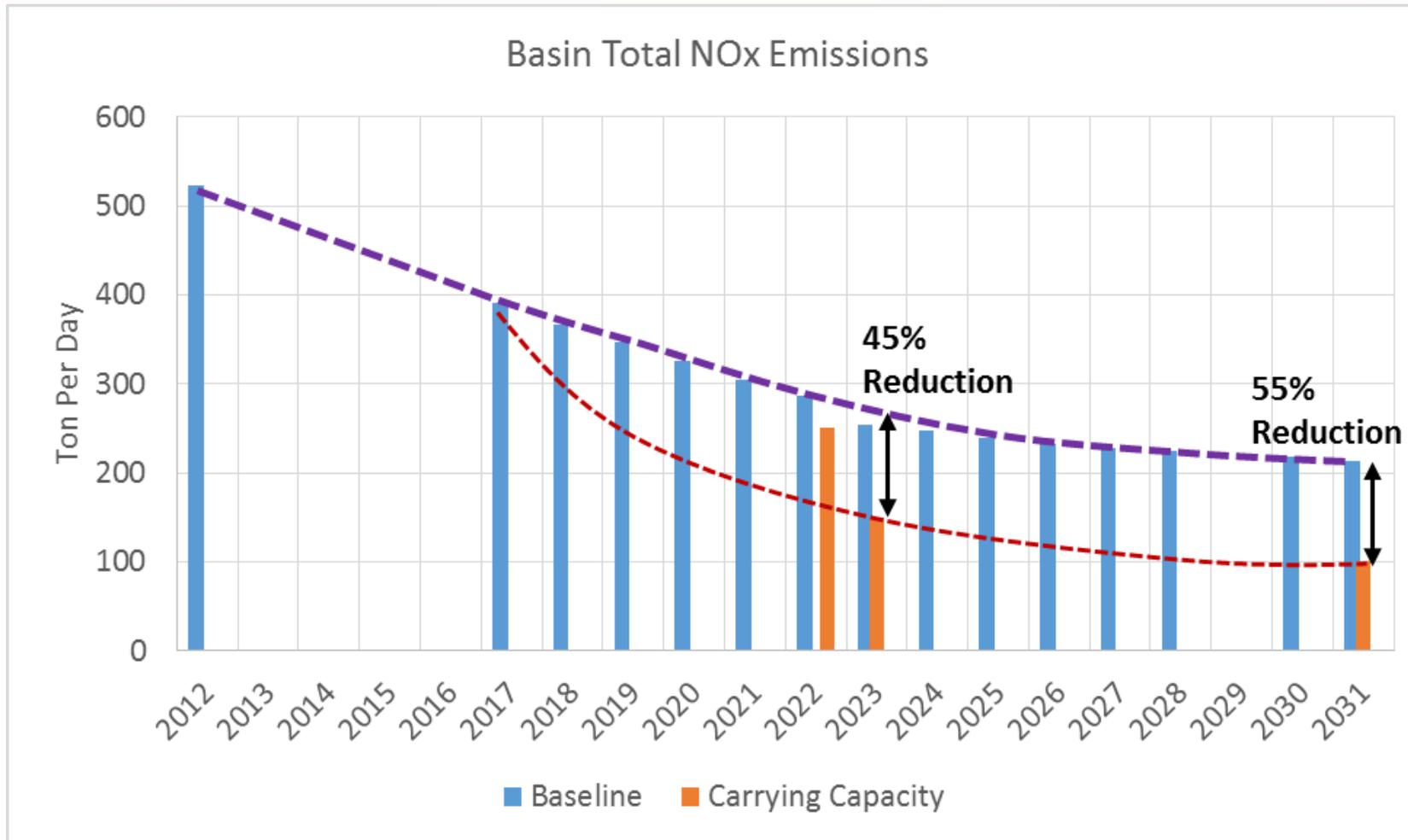
\*Draft 2016 AQMP requests re-classification to 'serious' from 'moderate'

# 2016 AQMP Contents

- Latest emission inventory (*base year 2012, attainment years and quantitative milestone years*) includes SCAG's transportation control measures
- Air Quality Data
- Control Strategy
  - ✓ SCAQMD stationary and mobile sources
  - ✓ CARB mobile (on-road and off-road) sources and consumer products
  - ✓ Federal sources (aircraft, locomotive, ocean-going vessels)
- Attainment demonstration modeling
  - ✓ Ozone strategy to meet 1-hour and 8-hour ozone standards by 2022, 2023, 2031
  - ✓ Ozone strategy to meet annual PM<sub>2.5</sub> as expeditiously as practicable by 2025
  - ✓ Baseline emissions to meet 24-hour PM<sub>2.5</sub> standard by 2019
- Clean Air Act requirements (*RACM/BACM, Impracticability Demonstration, Reasonable Further Progress, General/Transportation Conformity, PM Precursors, and New Source Review*)
- Other related topics – Toxics, Climate Change and Energy
- Public participation

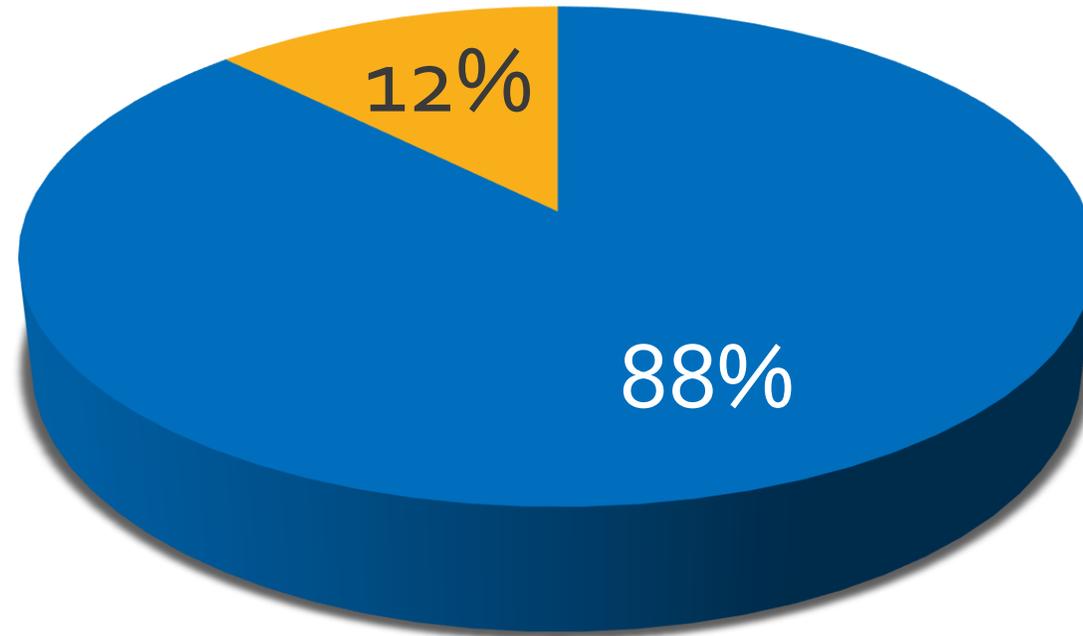


# Emission Reductions Needed (NOx)



8-hour Ozone strategy targeting 2023 will ensure 1-hour attainment in 2022 as well as 24-hour and annual attainment in 2019 and 2025, respectively.

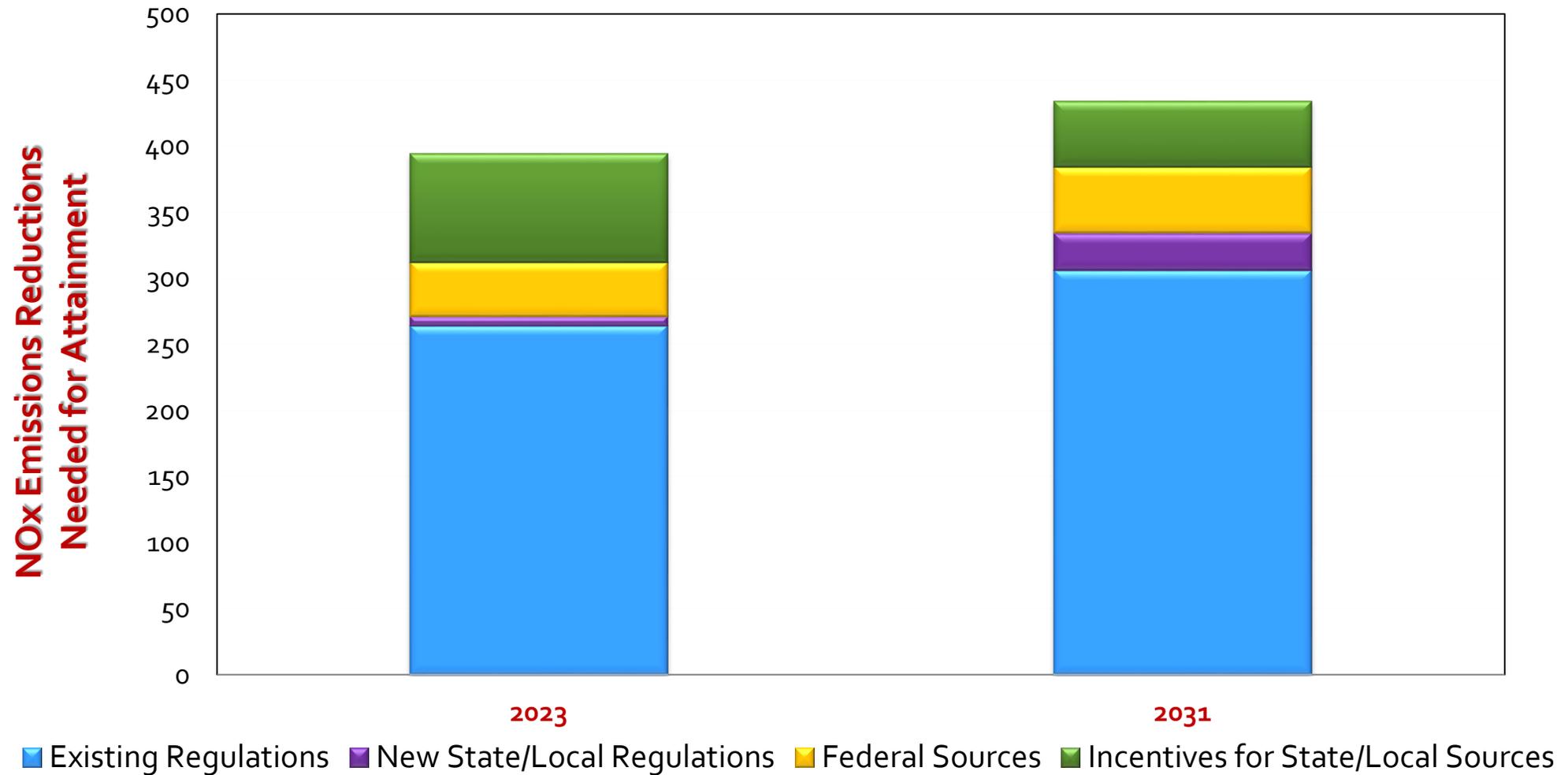
# Sources of NO<sub>x</sub>: Mobile vs. Stationary (2012)



■ Mobile Sources    ■ Stationary Sources

*Based on Summer Planning NO<sub>x</sub> Emissions Inventory (Appendix III, Draft 2016 AQMP)*

# Overall Plan Strategy



# Legal Authority and Responsibility

- In 2012, 88% of NO<sub>x</sub> comes from mobile sources
- Limited local authority over mobile sources



# Stationary Source Strategy

## Thoroughly evaluated all source categories and control options

- Detailed look at emission inventory
- Analysis of measures implemented through-out the country (RACT)
- Symposium, working groups, and advisory group

## Limited feasible regulatory options remaining for NO<sub>x</sub> reductions

- Reductions in NO<sub>x</sub> from non-refinery flares
- NO<sub>x</sub> controls for cooking appliances
- Further NO<sub>x</sub> reductions from RECLAIM reassessment
- Commercial/Residential equipment
- Alternatives to Diesel Back-up Generators

**If all stationary sources brought to zero emissions, would still not meet goals**



# Facility-based Measures

- *Set targets, work collaboratively to achieve creditable NO<sub>x</sub> reductions*
- *Approach:*

**TRUST**

**VERIFY**

**ENFORCE**

**PIVOT to Regulation  
if Needed**

- ✓ **New Development and Redevelopment Projects (EGM-01)**

- ✓ **Commercial Marine Ports (MOB-01)**

- ✓ **Commercial Airports (MOB-04)**

- ✓ **Rail Yards/Intermodal Facilities (MOB-02)**

- ✓ **Warehouse Distribution Centers (MOB-03)**



# Changes in Draft Final Plan

## Based on Comments received on the Revised Draft Plan

- Prioritized funding distribution to benefit disadvantaged communities
- Added latest emission reductions based on final attainment modeling
- Updated Chapter 2 to reflect public health comments received on Appendix I
- Added incentive funding shortfall procedure in Chapter 4 / Appendix IV-B
- Added consideration of “life cycle” analysis
- Added collaboration to increase efficiencies
- Clarified engine inventory and acknowledged need for reliable emergency power in certain circumstances (CMB-01)
- Highlighted current inventory of non-refinery flare facilities (CMB-03)
- Expanded discussion of RECLAIM re-assessment (CMB-05)
- Clarified the review of NPDES permits to ensure future proposals do not conflict (BCM-03)



# Funding Needed

- Accelerated early deployment of zero and near-zero technologies for mobile and stationary sources
- Significant expansion of financial incentive programs needed
- **Mobile Source** Emission Reduction Estimated Total Funding Range - 10 to \$12 Billion over next 15 Years
- **Stationary Source** Emission Reduction (*residential, commercial, small business*) Estimated Total Funding Range - \$1 to \$2 Billion over next 15 Years



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**~ \$1 billion/year**

# Related Documents

- Draft Program **Environmental Impact Report** (CEQA)
  - ✓ Released September 16, 2016 for 60-day public comment and review period
  - ✓ 9 comment letters received
- **Socioeconomic Assessment**
  - ✓ Costs and Benefits released August 31, 2016
  - ✓ Environmental Justice Impacts released September 23, 2016
  - ✓ Job impacts, Sub-regional modeling results, and impacts from CEQA Alternatives released on November 2, 2016
  - ✓ Complete updated Assessment with appendices released November 19, 2016
  - ✓ Additional 30-day public review and comment period
- **Incentive Funding Action Plan**



# Socioeconomic - *Cost of Revised Draft AQMP*

Measures	Present Worth Value (Billions of 2015 dollars)				Average Annual Amortized Cost (2017-2031) 2015\$B
	Remaining Incremental Cost		Incentives	Total Incremental Cost	
SCAQMD Stationary Source	\$4.3	+	\$1.4	= \$5.7	\$0.3
SCAQMD Mobile Source	<\$0.1	+	\$0.6	= \$0.6	<\$0.1
CARB Mobile Source	-\$3.3	+	\$12.6	= \$9.3	\$0.6
Total	\$1.1	+	\$14.6	= \$15.7	\$0.85

**Note:** Numbers may not add up due to rounding.

# Socioeconomic - *Public Health Benefits*

- Based on lowering mortality (*death rates*) and morbidity (*illness and other health effects*) risks as a result of implementing the Revised Draft 2016 AQMP
  - ✓ Overall public health benefit \$258 billion from 2017-2031 in 4-county region
  - ✓ ~\$24 billion public health benefit per year
  - ✓ 99 percent estimated public health benefits associated with avoided premature deaths from reduced long-term exposure to PM<sub>2.5</sub>



# Financial Incentives Action Plan Development

- Action Plan to identify and develop process to secure additional incentive funds
- Draft Funding Plan Outline
  - ✓ Background
  - ✓ Existing funding programs (past and current)
  - ✓ Potential new funding opportunities
  - ✓ Activities to pursue funding
  - ✓ Schedule/Reporting
- Draft 2016 AQMP - Discussion of level of funding incentives needed to help achieve NO<sub>x</sub> emission reductions associated with the State SIP Strategy “Further Deployment of Cleaner Technologies” measures
  - ✓ Funding Incentives - \$10 to \$12 billion for mobile sources; \$1 to \$2 billion for stationary sources over next 7 to 15 years (~\$1 billion/year)
  - ✓ Proposed actions at local/regional, state, and national levels



# Example Funding Sources – *All options*

*being evaluated*

Expanding  
Existing  
Sources

- Diesel Emissions Reduction Act (DERA), Air Shed Grants
- U.S. Department of Energy (Clean Cities Program)
- Carl Moyer Program
- Proposition 1B
- Low Carbon Transportation Funding (CARB)
- AB 118 – AQ Improvement Program/Fuel & Vehicle Technology Program
- AB 2766 – Local Governments
- SCAQMD Clean Fuels Fund

New  
Potential  
Sources

- VW Settlement
- Future DERA Funding
- Cargo Container Fee
- Mileage-Based (VMT) User Fee
- Gas Sales Tax
- Public/Private Partnerships
- Expand DMV Registration Fees and Low Carbon Transportation Funding

# Activities to Pursue Funding

- Analysis of Authority
- Formation of Stakeholders Working Group
- Creation of National Collaborative
  - ✓ NACAA for state/local air agencies
  - ✓ Private Sector Members (Engine Manufacturers, MECA, Trade Associations, Labor Unions, etc.)
  - ✓ Non-government Organizations (Local, State, National)
- State Collaboration
  - ✓ Work with CAPCOA
  - ✓ Public/Private Partnerships



# Plan Development Status

- Draft Plan released June 30<sup>th</sup>
- Revised Draft Plan released October 7<sup>th</sup>
  - ✓ Included changes based on 69 comment letters received on Draft Plan
  - ✓ Plan and technical appendices posted online
  - ✓ Summary of major revisions posted online
- Releasing Draft Final Plan today (*60-day set hearing*)
  - ✓ Included changes based on 30 comment letters received on Revised Plan
- Responses to all comments received compiled into one document to be released
- Conducted 4 regional Public Hearings in November
- Ongoing AQMP Advisory Group and regional stakeholder meetings
  - ✓ 163 Advisory/stakeholder meetings during the development the 2016 AQMP
- Seek approval from Governing Board in February 2017



BOARD MEETING DATE: December 2, 2016

AGENDA NO. 3

**PROPOSAL:** Recognize Revenue and Appropriate Funds for U.S. EPA PAMS and Near-Road Monitoring Programs, Amend Technical Support Contracts for U.S. EPA PAMS, and Issue RFQ and Purchase Orders and/or Contracts for CNG Vehicles and Air Monitoring and Analysis Equipment

**SYNOPSIS:** SCAQMD expects to be awarded Clean Air Act Section 105 Grant funds by the U.S. EPA in the estimated amount of \$1,217,822 for the 25th Year U.S. EPA PAMS Program. These actions are to: 1) recognize revenue and appropriate funds into the FY 2016-17 Budget for the 25th Year PAMS Program; 2) appropriate funds into the FY 2016-17 Budget for the U.S. EPA FY 2015-16 PAMS and Near-Road Monitoring Programs; 3) amend technical support contracts for the 25th Year PAMS Program; and 4) issue an RFQ and purchase orders for air monitoring equipment and CNG vehicles.

**COMMITTEE:** Administrative, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTIONS:**

1. Recognize revenue and appropriate funds, upon receipt, in the amount of \$825,643 (\$392,179 was previously included in Salary and Employee Benefits within the FY 2016-17 Budget), as part of the estimated U.S. EPA Section 105 25th Year PAMS award of \$1,217,822, into the Services and Supplies and Capital Outlays Major Objects in the FY 2016-17 Budget, divided between Science & Technology Advancement (Org 47) and Planning, Rule Development & Area Sources (Org 26), as set forth in the attachment, and adjust appropriations as needed once the final award amount is determined.
2. Authorize the Executive Officer to amend the following contracts as budgeted in the proposed 25th Year PAMS grant as listed in the attachment:
  - a) Add funds not to exceed \$110,000 to the contract with Sonoma Technology, Inc., for upper air meteorological station technical support; and
  - b) Add funds not to exceed \$20,000 to the contract with Technical & Business Systems, Inc., (T&B Systems) to upgrade the meteorological systems and data communications at the air monitoring stations.

3. Appropriate \$48,000 (in addition to \$67,000 previously appropriated by the Board on July 8, 2016) to Science & Technology Advancement's FY 2016-17 Budget (Org 47), Capital Outlays Major Object, towards the purchase of one high-pressure liquid chromatograph (HPLC) with a diode array detector (DAD) funded with the FY 2015-16 U.S. EPA PAMS grant.
4. Issue an RFQ, in accordance with SCAQMD's Procurement Policy and Procedure, for equipment listed in Table 1 and described in this letter.
5. Authorize the Procurement Manager, in accordance with SCAQMD's Procurement Policy and Procedure, to issue purchase orders and/or contracts for:
  - a) Air monitoring equipment, based on the results of the RFP, in an amount not to exceed \$115,000 as listed in Table 1 and described in this letter; and
  - b) Vehicles and air monitoring equipment in an amount not to exceed \$228,000 as listed in Table 2 and described in this letter.
6. Appropriate up to \$23,000 to Science & Technology Advancement's FY 2016-17 Budget (Org 47), Capital Outlays Major Object, for the purchase of one black carbon monitor with U.S. EPA Near-Road Monitoring funds.

Wayne Natri  
Acting Executive Officer

MMM:JCL:ld

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## **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 Clean Air Act Section 105 Grant funds in support of program requirements.

### Near-Road NO2 Monitoring Program

On February 9, 2010, U.S. EPA promulgated new monitoring requirements for the nitrogen dioxide (NO2) monitoring network in support of newly revised 1-hour NO2 National Ambient Air Quality Standards (NAAQS) and the retained annual NAAQS. In the new monitoring requirements, state and local air monitoring agencies are required to install near-road NO2 monitoring stations at locations where peak hourly NO2 concentrations are expected to occur. State and local air agencies are required to consider traffic volumes, fleet mix, roadway design, traffic congestion patterns, local terrain or topography and meteorology in determining where a required near-road NO2 monitor should be placed. In addition to those required considerations, there are other factors that impact the selection and implementation of a near-road monitoring station including satisfying siting criteria, site logistics and population exposure.

### **Proposal**

#### 25th Year PAMS Program Funds

The U.S. EPA estimates that the 25th Year PAMS Program will be funded at \$1,217,822. This action is to recognize revenue, upon receipt, and appropriate a portion of the estimated funds in the amount of \$825,643 (\$392,179 was previously included in Salary and Employee Benefits within the FY 2016-17 Budget) into Services and Supplies and Capital Outlays Major Objects in the FY 2016-17 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.

#### Amend Technical Support Contracts

##### *Technical Support – Upper Air Meteorological Station*

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 for the initial year of the current contract effort, with future year annual renewals up to \$110,000, 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 for the third year of the current contract and amend the contract by adding additional funds not to exceed \$110,000 for the PAMS Upper Air Meteorological Monitoring Network.

### *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 ensure continued upgrades to the network for 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 meteorology network.

### Proposed Purchase Orders through RFQ Process

#### *High Pressure Liquid Chromatograph (HPLC) with a Diode Array Detector (DAD)*

An HPLC is used for the analysis of carbonyl compounds as part of the required measurements of the PAMS program. The current HPLC is no longer supported by the manufacturer and is in need of replacement. On July 8, 2016, the Board approved the purchase of a gas chromatograph (GC) preconcentrator in the amount of \$67,000. It has been determined that an HPLC with a DAD is a higher priority, and the purchase of the GC preconcentrator is not needed immediately. Additional funding will allow for better detection of carbonyl compounds and allow for future upgrades for other compound analyses. This action is to appropriate \$48,000 (in addition to the \$67,000 previously appropriated) towards the purchase of one HPLC with a DAD in a total amount not to exceed \$115,000. Quotes for this RFQ will be solicited through competitive formal bids, in accordance with SCAQMD's Procurement Policy and Procedure.

### Proposed Purchases through Cooperative Purchasing, Prior Bid, Last Price and Sole Source Purchase Orders

#### *CNG Vehicle (Truck or Van)*

With an aging fleet of calibration and repair vehicles, staff has identified the need to replace the older high-mileage vehicles with new CNG-powered vehicles. Calibration and repair vehicles are essential for staff to perform routine and non-routine calibration and maintenance and repair of air monitoring equipment for air monitoring stations supporting the PAMS program. Dedicated CNG vehicles are available from vendors under the State of California, Department of General Services, Procurement Division, Alternative Fueled Vehicles Contract 1-16-23-23D. Two CNG trucks and/or vans from the vendor on the list with the most competitive price for these types of vehicles will be selected. The cost of two CNG trucks and/or vans is approximately \$90,000.

#### *Gas Dilution System*

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. An RFQ was previously released for gas dilution systems and Teledyne was selected. The

vendor has agreed to honor the same price as the prior bid. The cost for two gas calibration dilution systems is approximately \$50,000.

#### *Site Node Loggers*

Site node loggers are necessary for air monitoring equipment to communicate to the data acquisition software to transmit data and quality control information in near real time. Upgraded site node loggers are being deployed at the PAMS air monitoring stations for this purpose. Agilaire is the only supplier of compatible site node loggers. The cost for two site node loggers is approximately \$21,000.

#### *Pure Air Generators*

Pure air generators are necessary to deliver contaminant-free air required for the operation of air monitoring equipment that supports PAMS measurements. An RFQ was previously released for pure air generators and Teledyne was selected. The vendor has agreed to honor the same price as the prior bid. The cost for six pure air generators is approximately \$44,000.

#### *Black Carbon Monitor*

Various analytical methods have been developed to quantify the concentration of atmospheric soot particles. Soot can be analyzed by means of different methodologies. When its light-absorbing properties are measured, soot is referred to as black carbon. Black carbon measurements would enhance characterization of mobile sources in the near-road environment, and currently there are two black carbon monitors deployed in the near-road environment in the air monitoring network. On July 8, 2016, the Board authorized the purchase of three traffic counters in the amount of \$30,000. It has been determined that the black carbon monitor is a higher priority, and the purchase of the traffic counters are not needed due to available traffic data provided through Caltrans. An RFQ was previously released for black carbon monitors and Magee was selected. The vendor has agreed to honor the same price as the prior bid. The approximate cost for one black carbon monitor is \$23,000.

#### Near-Road Monitoring Program

U.S. EPA has provided funding in Section 103 Grant funds for the implementation of the Near-Road NO<sub>2</sub> Monitoring Program through May 31, 2017. This action is to appropriate up to \$23,000 to Science & Technology Advancement's FY 2016-17 Budget, Capital Outlays Major Object, for the purchase of one black carbon monitor with U.S. EPA Near-Road Monitoring funds.

#### **Outreach**

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

### **Cooperative Purchasing**

Under Section IV.A.5 of SCAQMD's Procurement Policy and Procedure, the Procurement Manager shall pursue cooperative purchasing opportunities whenever possible. Dedicated CNG vehicles are available from vendors under the State of California, Department of General Services, Procurement Division, Alternative Fueled Vehicles Contract 1-16-23-23D.

### **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 site node loggers 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. Therefore, under circumstance (a) Agilaire is the only supplier of site node loggers fully compatible with the AirVision data acquisition system currently in use.

### **Prior Bid, Last Price**

In addition, SCAQMD's Procurement Policy and Procedure allows for awards based on prior bid, last price if the conditions of the previous purchase are similar. The Board previously released RFQs Q2016-07R, Q2015-13R and Q2016-07R for competitive bids on gas dilution systems, pure air generators and black carbon monitors. Teledyne was the selected vendor for the gas dilution systems and pure air generators, and Magee was the selected vendor for the black carbon monitors. Teledyne and Magee have agreed to honor the same price as the last bid for these items. U.S. EPA staff concur with these purchases.

**Resource Impacts**

U.S. EPA Section 105 Grant funding will support the operation of the 25th Year PAMS Program and fund Capital Outlays, Supplies and Services, and Salaries and Employee Benefits to meet necessary objectives of the Program. Total revenue to be received is estimated at \$1,217,822 from the U.S. EPA Section 105 25th Year PAMS Program. The following tables outline proposed purchases and the attachment to this letter details appropriations of \$825,643 for Services and Supplies and Capital Outlays. Of the \$1,217,822 for the 25th Year PAMS Program, \$392,179 was previously included in Salaries and Employee Benefits within Science & Technology’s FY 2016-17 Budget. Funding of \$23,000 for the black carbon monitor is available from the U.S. EPA Near-Road Monitoring grant.

**Table 1  
Proposed Purchase Order and/or Contract through RFQ**

<b>Description</b>	<b>Qty</b>	<b>Funding Source</b>	<b>Estimated Cost</b>
HPLC with a DAD	1	PAMS FY 15-16	\$115,000
<b>Total</b>			<b>Not to Exceed \$115,000</b>

**Table 2  
Proposed Purchases through Cooperative Purchasing, Prior Bid, Last Price and  
Sole Source Purchase Orders and/or Contracts**

<b>Description</b>	<b>Qty</b>	<b>Funding Source</b>	<b>Estimated Cost</b>
CNG Vehicle	2	PAMS FY 16-17	\$90,000
Gas Dilution System	2	PAMS FY 16-17	\$50,000
Site Node Logger	2	PAMS FY 16-17	\$21,000
Pure Air Generator	6	PAMS FY 16-17	\$44,000
Black Carbon Monitor	1	Near-Road 15-16	\$23,000
<b>Total</b>			<b>Not to Exceed \$228,000</b>

**Attachment**

Proposed 25th Year PAMS Expenditures for FY 2016-17

**Attachment**  
**Proposed 25th Year PAMS Expenditures for FY 2016-17**

<b>Account Description</b>	<b>Account Number</b>	<b>Program Code</b>	<b>Estimated Expenditure</b>
<b>Services &amp; Supplies Major Object:</b>			
<b><u>Planning, Rule Development &amp; Area Sources</u></b>			
Rents & Leases Structure	67350	26530	\$ 20,000
Professional and Specialized Services: Technical Support - Upper Air (Sonoma)	67450	26530	110,000
Professional and Specialized Services: Upper Air Warranties	67450	26530	30,000
Rents & Leases Equipment	67600	26530	500
Maintenance of Equipment	67600	26530	35,000
Building Maintenance	67650	26530	5,000
Travel	67800	26530	3,000
Communications	67900	26530	13,000
Postage	68060	26530	150
Office Expense	68100	26530	5,000
Small Tools	68300	26530	500
Training	69500	26530	2,000
			\$ 224,150
<b><u>Science &amp; Technology Advancement</u></b>			
Rents & Leases Structure	67350	47530	\$ 2,000
Professional and Specialized Services: Meteorology Network Upgrades (T&B Systems)	67450	47530	20,000
Professional and Specialized Services: Station Upgrades	67450	47530	70,000
Professional and Specialized Services: Data Management and Analysis	67460	47530	15,000
Temp Agency Services	67460	47530	5,000
Demurrage Expenses	67550	47530	20,000
Rents & Leases Equipment	67600	47530	500
Maintenance of Equipment	67600	47530	82,441
Building Maintenance	67650	47530	5,000
Travel	67800	47530	6,000
Laboratory Supplies	68050	47530	75,552
Office Expense	68100	47530	5,000
Small Tools	68300	47530	45,000
Training	69500	47530	10,000
			\$ 361,493
<b>Total Services &amp; Supplies Major Object:</b>			<b>\$ 585,643</b>
<b>Capital Outlay Major Object:</b>			
CNG Vehicle (2)	77000	47530	90,000
Gas Dilution System (2)	77000	47530	50,000
Site Node Logger (2)	77000	47530	21,000
Pure Air Generator (6)	77000	47530	44,000
Carbonyl Sampler (2)	77000	47530	35,000
<b>Total Capital Outlay Major Object:</b>			<b>\$ 240,000</b>
<b>FY 2016-17 Appropriations</b>			
			<b>\$ 825,643</b>

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 4

**PROPOSAL:** Transfer and/or Recognize Revenue and Appropriate Funding, Authorize Release of RFQ and Issue Purchase Orders

**SYNOPSIS:** Air quality monitoring and laboratory-based sample analysis at SCAQMD continues to be an integral part of ongoing efforts to better characterize air quality and assess the effectiveness of air pollution reduction programs. While such monitoring and analysis efforts are given the highest priority, their effectiveness and staff efficiency can be enhanced by investing in new and updated laboratory instruments, field platforms and software that would allow for more reliable instrument performance, rapid response and reporting. These actions are to: 1) transfer and/or recognize revenue and appropriate funding to Science & Technology Advancement's and Information Management's FY 2016-17 Budgets; and 2) release an RFQ and issue purchase orders for laboratory and field equipment.

**COMMITTEE:** Administrative, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTIONS:**

1. Transfer and/or recognize revenue and appropriate up to \$218,000 to Science & Technology Advancement's FY 2016-17 Budget (Org 44), Capital Outlays Major Object, from the AES Settlement Projects Fund (35), BP ARCO Settlement Projects Fund (46) and Air Toxics Fund (15), as indicated in Tables 1 and 2.
2. Authorize the Procurement Manager, in accordance with SCAQMD Procurement Policy and Procedure, to:
  - a) Release RFQ Q2017-04 in an amount not to exceed \$100,000, and based on the results of the RFQ, issue a subsequent purchase order for a Fourier transform-infrared (FT-IR) microscope system with a macro attenuated total reflectance (ATR) sampling module, as listed in Table 1; and
  - b) Issue prior bid, last price purchase order to Shelter One in an amount not to exceed \$118,000 for two Mobile Air Monitoring Trailers, as listed in Table 2, based on the results of RFQ Q2014-11.
3. Recognize revenue and appropriate funding up to \$150,000, as needed, from the Air Toxics Fund (15) to Science & Technology Advancement's FY 2016-17

Budget (Org 44), Services and Supplies Major Object, for services and supplies necessary to conduct special monitoring and analysis programs used in the development of health risk assessments (HRAs).

4. Transfer and appropriate \$60,000 to Information Management's FY 2016-17 Budget (Org 27), Capital Outlays Major Object, from the BP ARCO Settlement Projects Fund (46) for software development to transfer air monitoring data from an upgraded data management system.

Wayne Natri  
Acting Executive Officer

MMM:JCL:ld

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### **Background**

Air quality monitoring at SCAQMD continues to be an integral part of ongoing efforts to better characterize air toxic exposure and assess the progress and effectiveness of air quality programs. Currently, staff is conducting special monitoring and analysis programs in the City of Paramount at several facilities including Exide, Carlton Forge Works, AllenCo and Hixson Metal Finishing as well as in Aliso Canyon and Mecca. Additionally, samples are collected and analyzed to assess the impact of oil extraction operations, as well as source test toxic emissions from facilities such as Quemetco.

In addition to these initiatives and efforts to reduce and monitor toxic air contaminants, there are ongoing federal monitoring programs for toxics and general air quality, such as U.S. EPA's National Air Toxics Trends Sites (NATTS) program and near-road monitoring, which are also being conducted by staff. NATTS was developed to fulfill the need for long-term national hazardous air pollutant (HAP) monitoring data. The data compiled through these monitoring efforts serves as a continuum between past and future air measurements programs, such as MATES and PAMS, allows for more accurate evaluation of trends on a regional scale, and provides a basis for comparison of these special monitoring programs.

Lastly, laboratory microscopy programs conduct analyses for the resolution of fallout complaints, identification of trace components, micro-scale chemistry comparison to source materials and forensic analysis of unknown materials. This could include samples of paints, coatings, adhesives, lubricating oils, particle fallout, etc., to identify components and potential sources of emissions. These detailed analyses are dependent on a series of sophisticated analysis using FT-IR spectroscopy and associated software.

To maintain the demands of these high priority monitoring and analysis projects, SCAQMD's capability, response time and public dissemination of information and data capture rates can be enhanced with new updated laboratory instrumentation, measurement platforms and software.

### **Proposal**

To upgrade and modernize SCAQMD's air monitoring and laboratory capabilities, this action is to transfer and/or recognize revenue and appropriate up to \$218,000 to Science & Technology Advancement's FY 2016-17 Budget for the purchase of laboratory and field equipment, through competitive and sole source purchases, as described below and summarized in the Attachment, Tables 1 and 2. The use of AES Settlement Projects Fund (35), as recommended in this Board letter and identified in Table 1, is not restricted by the applicable statutes and the settlement agreement; however, in the past the Board restricted the use of these funds for fleet rules. With Board approval, monies in the AES Settlement Projects Fund (35) can be directed to other projects.

Additionally, this action is to recognize revenue and appropriate \$150,000 to Science & Technology Advancement's FY 2016-17 Budget from the Air Toxics Special Revenue Fund (15) for services and supplies necessary to conduct special monitoring and analysis programs which are used in the development of HRAs. Finally, this action is to also transfer and appropriate \$60,000 to Information Management's FY 2016-17 Budget from the BP ARCO Settlement Projects Fund (46) for software development to transfer air monitoring data from an upgraded data management system.

### Proposed Purchase through the RFQ Process

Micro FT-IR analysis is an analytical tool that is applied by the laboratory for the resolution of fallout complaints, identification of trace components, micro-scale chemistry comparison to source materials and forensic analysis of unknown materials. The power supply in the laboratory's micro FT-IR instrument failed in October 2015 and could not be repaired due to the age and unavailability of replacement parts for the instrument. The acquisition of a micro FT-IR system with ATR (attenuated total reflectance) capabilities and microscope would restore and greatly enhance the analytical capabilities of SCAQMD's laboratory with respect to particle analysis and identification. The Procurement Manager will release RFQ #Q2017-04 to solicit competitive formal bids, in accordance with SCAQMD's Procurement Policy and Procedure, for the purchase of this laboratory equipment. The approximate cost of this equipment is \$100,000.

### Proposed Purchase through Prior Bid, Last Price

Mobile platforms will be needed to house and deploy instruments that can conduct discrete and near real-time measurements of air pollutants. The mobile platform would need to be equipped with a generator, meteorological system, communications capability, heavy-duty air conditioning, insulation and the ability to carry and support a variety of air monitoring instruments and samplers. The approximate cost for these mobile trailers is \$118,000.

On June 6, 2014, RFQ #Q2014-11 was released for the purchase of a Mobile Air Monitoring Platform. Several bids were evaluated, and the bid provided by Shelter One was selected as the most competitive and responsive to the RFQ specifications. Shelter One agrees to abide by the same price for the purchase of two additional mobile platforms. Per SCAQMD's Procurement Policy and Procedures Section IV.B.5, which states that after confirming the validity of a prior price, an award may be made on the basis of a prior bid or on the basis of a last price, if the conditions of a previous purchase are similar. The current purchase request for an additional two trailers have the same basic characteristics as those purchased in 2014 pursuant to the previous RFQ.

### **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 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."

### **Benefits to SCAQMD**

The purchase of new laboratory instruments, monitoring platforms and software will provide for increased capability and greater efficiency of data display.

### **Resource Impacts**

Up to \$100,000 and \$59,000, respectively, will be transferred from the AES Settlement Projects Fund (35) and the BP ARCO Settlement Projects Fund (46) and up to \$59,000 in revenue will be recognized from the Air Toxics Fund (15) for a total of \$218,000 to be appropriated to Science & Technology Advancement's FY 2016-17 Budget (Org 44). These funds are adequate to cover the proposed Capital Outlay Major Object purchases listed in Tables 1 and 2. Of this \$218,000, total purchases through the RFQ process shall not exceed \$100,000 and total sole source purchases shall not exceed \$118,000. Additionally, up to \$150,000 from the Air Toxics Fund (15) will be recognized and appropriated to Science & Technology Advancement's FY 2016-17 Budget (Org 44), Services and Supplies Major Object, as needed. Lastly, \$60,000 will be transferred from the BP ARCO Settlement Projects Fund (46) and appropriated to Information Management's FY 2016-17 Budget (Org 27), Capital Outlays Major Object.

### **Attachment**

Table 1 - Proposed Purchase through RFQ Process

Table 2 – Proposed Purchase through Prior Bid, Last Price

Attachment

**Table 1**  
**Proposed Purchase through RFQ Process**

<b>Description</b>	<b>Qty</b>	<b>Funding Source</b>	<b>Estimated Cost</b>
FT-IR Microscope System with Macro ATR Sampling Module	1	Fund 35 (AES)	\$100,000

**Table 2**  
**Proposed Purchase through Prior Bid, Last Price and RFQ Q2014-11**

<b>Description</b>	<b>Qty</b>	<b>Funding Source</b>	<b>Estimated Cost</b>
Mobile Air Monitoring Trailers	2	Fund 46 (BP Arco) and Fund 15 (Air Toxics)	\$118,000 (\$59,000 per fund)

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 5

PROPOSAL: Amend Contract for Tier 4 Passenger Locomotives

SYNOPSIS: Under the “Year 16” Carl Moyer Program Announcement released on March 7, 2014, the Southern California Regional Rail Authority (SCRRA) submitted a proposal requesting \$58.85 million to cofund the replacement of 17 and the purchase of 3 new Tier 4 locomotives. On September 4, 2015, the Board awarded \$22.85 million to SCRRA from the Carl Moyer Program AB 923 Fund (80), with a commitment to consider the remaining \$36 million over four phases. The SCAQMD’s cost-share of this \$129 million project is only for the replacement component of the project. This action is to amend SCRRA’s contract adding an additional \$9 million for a revised total of \$31.85 million from the Carl Moyer Program AB 823 Fund (80). The remaining \$27 million requested by SCRRA will be considered over three phases in future Board requests.

COMMITTEE: Technology, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTION:**

Authorize the Chairman to amend a contract with SCRRA adding an additional \$9 million to the previous \$22.85 million award for a total of \$31.85 million from the Carl Moyer Program AB 923 Fund (80). The remaining \$27 million of the requested funds, as set aside by the Board, will be considered over three phases in future Board requests.

Wayne Natri  
Acting Executive Officer

MMM:FM

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**Background**

At their February 1, 2013 and February 7, 2014 meetings, the Board approved awards to SCRRA in the amount of \$52 million for the replacement of 20 passenger locomotives with Tier 4 locomotives over a four-year period. Subsequently, under the “Year 16” Carl Moyer Program solicitation, SCRRA submitted a new proposal requesting \$58.85

million for the replacement of 17 additional locomotives and the purchase of 3 new Tier 4 passenger locomotives. For that proposal, on September 4, 2015, the Board approved \$22.85 million to SCRRA from the Carl Moyer Program AB 923 Fund (80), with a commitment to consider the remaining \$36 million over four phases.

### **Proposal**

This action is to amend the contract with SCRRA to add \$9 million to the previous \$22.85 million award for a total of \$31.85 million from the Carl Moyer Program AB 923 Fund (80). The remaining \$27 million of the requested funds, as set aside by the Board, will be considered over three phases in future Board requests.

The total project cost of \$129 million is cost-shared by Caltrans and Metrolink member agencies with 31.9% and 22.5%, respectively. In compliance with the Carl Moyer Program requirements, SCAQMD funds will be used only to fund 11 replacement locomotives because they cannot be commingled with Caltrans funds. However, SCAQMD's participation will be contingent upon implementation of all 20 locomotives.

The SCRRA application was evaluated according to CARB's Carl Moyer Program Guidelines, and the requested funding amount is within the cost-effectiveness limit of the Program. In addition, based on the location of the rail tracks, 53% of the locomotive operations will be in disproportionately impacted areas, as defined under SCAQMD's Carl Moyer Program criteria.

### **Benefits to SCAQMD**

The replacement of older diesel locomotives with new Tier 4 locomotives will help the South Coast Air Basin meet federal air quality standards. The procurement of Tier 4 locomotives has been identified in the recent U.S. EPA-approved 2007 8-hour Ozone SIP for the South Coast Air Basin. In addition, since SCRRA locomotives travel throughout the South Coast Air Basin, the cleaner Tier 4 locomotives will result in reduced exposure to diesel particulate emissions. Specifically, emissions reductions from NO<sub>x</sub>, PM and ROG from each locomotive will be approximately 12.3 tons/year, 0.33 ton/year, and 1.0 ton/year, respectively.

### **Resource Impacts**

The additional funding award for SCRRA's locomotive project shall not exceed \$9 million for a total of \$31.85 million from the Carl Moyer Program AB 923 Fund (80). The remaining \$27 million of the SCRRA-requested funding will be considered over three phases in future Board requests.

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 6

PROPOSAL: Issue Program Announcement for Low Emission Leaf Blower Vendors 

SYNOPSIS: To follow up on the successful Leaf Blower Exchange Programs, staff proposes a similar incentive for 2017 to generate cost-effective emission reductions. This action is to issue a Program Announcement to solicit competitive bids from manufacturers of zero or low emission and low noise commercial leaf blowers in sufficient quantities and at the lowest possible price.

COMMITTEE: Mobile Source, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTION:**

Issue Program Announcement PA2017-02 to identify potential manufacturers or suppliers of zero or low emission and low noise commercial leaf blowers capable of providing up to 2,000 units.

Wayne Natri  
Acting Executive Officer

MMM:FM:VY

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**Background**

Since 2006, the SCAQMD has conducted the Leaf Blower Exchange Program annually to encourage professional gardeners and landscapers operating within the SCAQMD's four-county jurisdiction to turn in their old, polluting leaf blowers and purchase new, zero or low emission and low noise leaf blowers at a reduced price. The Program has been very successful, resulting in the exchange of 13,758 leaf blowers. In 2016, the program for the first time included two models of zero emission battery-operated blowers, in addition to a gasoline leaf blower. The gasoline leaf blower offered at that time was the only model certified by CARB with emission levels below the "Blue Sky Series" voluntary standards for hydrocarbons and nitrogen oxides. The Blue Sky Series voluntary standards are set at a level that is 50 percent lower than the current emission standards for leaf blowers that qualify for sale in California.

**Proposal**

This action is to issue Program Announcement PA2017-02 to solicit competitive proposals from qualified manufacturers or suppliers capable of supplying up to 2,000 zero or low emission and low noise leaf blowers for the SCAQMD's 2017 Leaf Blower Exchange Program. In addition to other criteria, to qualify for consideration, the proposed leaf blower must meet or exceed the CARB Blue Sky Series emission standards or be a zero emission electric leaf blower.

SCAQMD staff will evaluate the proposals based on, but not limited to, criteria including emission levels of the engine, leaf blower noise levels, product specifications, availability, production capacity, lead time, price of the product and the degree to which the supplier will provide additional services for advertising, organizing and conducting the exchange events. Finally, the PA requires bidders to provide a commitment that the terms and prices being offered are at least as favorable as those granted to customers making the same or similar purchases.

**Outreach**

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

**Bid Evaluation**

Proposals will be reviewed and evaluated by a diverse, technically qualified panel in accordance with criteria contained in the attached PA.

**Benefits to SCAQMD**

The Leaf Blower Exchange Program reduces exposure to harmful emissions from the use of traditional gasoline-powered leaf blowers within the South Coast Air Basin. Since 2006, more than 13,000 leaf blowers have been exchanged, reducing carbon monoxide, nitrous oxides, hydrocarbons and particulate matter from the air.

**Resource Impacts**

The amount of funding will be determined after the selection of a contractor(s) from the submitted proposals. Funding will be provided from the Air Quality Investment Fund (27), Rule 2202 AQIP Account.

**Attachment**

Program Announcement PA2017-02 – Leaf Blower Exchange Program

*Announcing the*  
*South Coast Air Quality Management District*

*Leaf Blower Exchange Program*

*Program Announcement*

*PA2017-02*

*December 2, 2016*

**SCAQMD reserves the right to change any criteria such as the schedule, qualifications and selection criteria outlined in this Program Announcement.**

**DATE:** December 2, 2016

**TO:** All Interested Parties

**FROM:** Wayne Nastri, Acting Executive Officer, SCAQMD

**SUBJECT:** SCAQMD Leaf Blower Exchange Program  
Announcement PA2017-02

The South Coast Air Quality Management District (SCAQMD) is pleased to announce a funding opportunity for implementation of a Leaf Blower Exchange Program in 2017. This Program is intended to encourage professional gardeners and landscapers operating within the SCAQMD's four-county jurisdiction to turn in their old, two-stroke, polluting leaf blowers and purchase new zero or low emission and low noise commercial leaf blowers at a reduced price. Since the 2006 original program, 13,758 leaf blowers have been exchanged through similar programs.

This Program Announcement is intended to identify potential manufacturers/suppliers of zero or low emission and low noise leaf blowers who are willing to provide up to 2,000 new blowers at a discounted price to be used for the 2017 Leaf Blower Exchange Program. All interested parties are encouraged to apply. The required product specifications are listed in Section D.

The SCAQMD staff is available to assist applicants during the preparation of their proposals for this Program. Points of contact for administrative and technical assistance are included in the attached Program Announcement in Section F.

Should you have any questions regarding this Program Announcement, please contact Mr. Vasken Yardemian, Senior Staff Specialist, at (909) 396-3296 (or by email at [vyardemian@aqmd.gov](mailto:vyardemian@aqmd.gov)). The Announcement documents can also be accessed via the internet by visiting SCAQMD's website at [www.aqmd.gov](http://www.aqmd.gov) where it can be viewed by making the selection "Grants & Bids."

Our main objective is to reduce exposure to harmful emissions from the use of gasoline-powered leaf blowers within the SCAQMD's four-county jurisdiction, and we look forward to receiving your proposal.

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**A. LEAF BLOWER EXCHANGE PROGRAM OVERVIEW**

The purpose of this Program Announcement PA2017-02 is to solicit competitive proposals from qualified manufacturers or suppliers for the production and supply of zero or low emission and low noise commercial leaf blowers to be used in the SCAQMD’s Leaf Blower Exchange Program in 2017. This Program is intended to encourage professional gardeners and landscapers operating within the SCAQMD’s four- county jurisdiction to turn in their old, two-stroke, polluting leaf blowers and purchase new low or zero emission and low noise leaf blowers at a reduced price. Since the 2006 original program, 13,758 leaf blowers have been exchanged through similar programs.

This Program Announcement is intended to identify potential manufacturers or suppliers of low or zero emission and low noise commercial leaf blowers who are willing to provide up to 2,000 new blowers and provide the best value including price and other project criteria herein.

The successful bidders should be knowledgeable and experienced in the manufacture and commercial distribution of reliable zero or low emission and low noise leaf blowers that meet the requirements set forth in Section D of this Program Announcement. They should have an established network of local dealerships providing product sales and service or provide assistance in making arrangements to secure suitable exchange locations within the SCAQMD’s four-county jurisdiction.

Total SCAQMD funding to be allocated will depend upon the availability of funds and the amount of the discount per unit offered by the manufacturer at the time of the leaf blower exchange events.

**B. PROGRAM SCHEDULE**

The implementation schedule of this program is illustrated below:

December 2, 2016	Issue the Program Announcement, <b>PA2017-02</b>
February 10, 2017	Proposals due no later than 2:00 PM
March 17, 2017	Proposals for approval by the Mobile Source Committee
April 7, 2017	Proposals for approval by the Board
May 26, 2017	Anticipated Contract Execution
December 31, 2017	Completion of Program

**C. PROPOSAL SUBMITTAL**

There is no specific application form for this Program Announcement, but applicants are expected to submit a proposal that addresses all of the items listed in Section D of the Program Announcement.

The applicant shall submit **four copies** of the project proposal in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the applicant and the words “**Program Announcement (PA2017-02)**.” All proposals for the Leaf Blower Exchange Program are due no later than 2:00 PM, February 10, 2017.

Procurement Unit  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA. 91765

The written proposals must be received by SCAQMD by the specified date and time regardless of when they may be postmarked for delivery. Email and faxed copies will not be accepted.

**D. PROJECT PROPOSAL GUIDELINES, REQUIREMENTS AND CONDITIONS**

**Proposal Requirements**

There is no specific application form for this Program Announcement, but applicants are expected to submit a proposal that addresses all of the items listed below.

To be considered for this Program:

- Bidders must have the capability to produce and supply up to 2,000 zero or low emission and low noise commercial leaf blowers by May 26, 2017, that meet the requirements listed below.
- The proposed leaf blower must be a model of sufficient power to be considered suitable for everyday commercial use by professional gardeners and landscapers.
- The proposed leaf blower engine must have been certified by the California Air Resources Board (CARB) for sale in California and must meet certified emission levels no higher than those identified by CARB as the Blue Sky Series engine emission standards listed below or be a battery-operated zero emission leaf blower:

Engine Displacement	Hydrocarbon plus Oxides of Nitrogen	Carbon Monoxide	Particulate Matter (PM standard applies only to 2-stroke engines)
<50 cc	25 g/kW-hr	536 g/kW-hr	2.0 g/kW-hr
50-80cc inclusive	36 g/kW-hr	536 g/kW-hr	2.0 g/kW-hr

- The manufacturer must agree not to request emissions credits generated by the sale of leaf blowers through this SCAQMD-subsidized program to comply with any CARB or EPA emissions credit averaging, banking or trading program.
- Although no specific noise level is required for a leaf blower to qualify for this Program, preference will be given to “low noise” models that are designed to achieve a noise level of 65 dB(A) while operating at a power level that is satisfactory for use by professional gardeners and landscapers.
- Bidders are required to agree to provide SCAQMD with Most Favored Customer status by warranting in the contract that the pricing, warranties, benefits and terms provided to SCAQMD will be no less favorable than those granted to other customers making the same or similar purchases.

**Required Product Information**

The contractor must provide all of the following information which will be used to evaluate and compare proposals. If electric, please indicate “NA” in appropriate specifications.

<b>Leaf Blower Specifications</b>	
Blower Model Number	
Engine Displacement (in cc)	
4-stroke	
Noise Rating in dB(A)	
Engine Power (in both kW and bhp)	
Air Velocity (mph)	
Air Volume with tubes (cfm)	
Air Volume without tubes (cfm)	
Dry Weight of Blower (pounds)	
Fuel Tank Capacity (ounces and liters)	
Warranty Period for Commercial Users	
Approximate Number of Dealerships/Service Centers within SCAQMD four-county jurisdiction	
<b>CARB-Certified Emission Level Information for Proposed Leaf Blower (NA for electric leaf blower)</b>	
CARB Executive Order Number and Date	
Certification Level for HC+NOx (in g/kW-hr)	
Certification Level for CO (in g/kW-hr)	
Has manufacturer requested that this engine be specifically designated by CARB as a “Blue Sky Series” engine?	
<b>Leaf Blower Cost Information</b>	
Manufacturer’s Suggested Retail Price	
Price per blower to SCAQMD for 1,000 units	
Price per blower to SCAQMD for 2,000 units	

## **Additional Contractor Services for Advertising and Conducting Exchange Events**

The SCAQMD will give preference to contractors who, in addition to providing a qualifying product at the lowest possible price, will provide additional services to help advertise the Program and organize and conduct the exchange events. For planning purposes, contractors should assume there will be a minimum of seven (7) exchange events on different days at various sites located throughout the SCAQMD's four-county jurisdiction. The highest scoring proposals will include contractor commitments to:

- Make all the necessary arrangements to secure suitable exchange sites.
- Provide outreach and advertising assistance for promoting the program.
- Provide the necessary staffing to satisfactorily conduct the exchange events.
- Cover the costs of collecting, destroying and properly disposing of the old blowers.

## **Company Contact**

Proposers shall provide the company's contact person's name, address, phone numbers and the email address.

## **Certifications and Representations**

Proposers shall complete and sign all the certification and representation forms provided in Attachment A of this package.

## ***E. PROJECT IMPLEMENTATION***

### **Project Selection Criteria**

A contractor will be selected based on the following criteria:

- a. The emission levels of the engine
- b. Product specifications
- c. Leaf blower noise level
- d. Lead times necessary to provide the required number of units (assuming a maximum of 2,000 units)
- e. Event support and experience (outreach, advertise, organize and conduct the exchange events)
- f. Cost-effectiveness

**Scoring Criteria:**

The proposals shall be evaluated according to the criteria set forth below:

	Points
a. HC + NOx Emission Levels (gms/kW-hr)	40
b. Product Specifications	15
c. Noise Levels (dba)	10
d. Lead Time to Provide Product	10
e. Event Support and experience	10
f. Cost-effectiveness (\$/lb)	15
<b>Total Points</b>	<b>100</b>

**Cost-effectiveness**

Proposer may use the following steps to calculate the cost-effectiveness.

$$E_r = \frac{(x_1-x_2)*kW*h*L_f}{454} + \frac{(y_1-y_2)*kW*h*L_f}{454*7}$$

Where,

- $E_r$  = Emission Reductions (lbs/unit/year)
- $x_1$  = CARB Standard for HC+NOx level (gms/kW-hr)
- $x_2$  = CARB Certified for HC+NOx level (gms/kW-hr) for proposed unit
- $y_1$  = CARB Standard for CO level (gms/kW-hr)
- $y_2$  = CARB Certified for CO level (gms/kW-hr) for proposed unit
- $kW$  = kW rating of the proposed unit (in kW)
- $h$  = Annual hours of operation (282)
- $L_f$  = Load Factor (0.94)

$$C_e = \frac{P*CRF}{E_r}$$

Where,

- $C_e$  = Cost-effectiveness (\$\$/lb.)
- $P$  = Price per proposed unit (\$\$)
- $CRF$  = Capital Recovery Factor (0.263, based on 2% discount and 4 year project life)
- $E_r$  = Emission Reductions (lbs/unit/year)

## **Amount of SCAQMD Funding**

Total SCAQMD funding to be allocated will depend upon the availability of funds and the amount of the discount per unit offered by the manufacturer prior to the scheduling of the leaf blower exchange events.

## **Project Completion Deadlines**

- The total number of leaf blowers to be used for the 2017 program (up to a maximum of 2,000 blowers) shall be available no later than May 26, 2017.
- Overall project shall be completed before December 31, 2017.
- Multiple awards may result from this Program Announcement.

## ***F. IF YOU NEED HELP***

This Program Announcement can be obtained by accessing the SCAQMD website at [www.aqmd.gov](http://www.aqmd.gov) where it can be viewed by making the selection “Grants & Bids”. SCAQMD staff members are available to answer questions during the proposal acceptance period. In order to help expedite assistance, please direct your inquiries to the applicable staff person, as follows:

For **General, Administrative, or Technical Assistance**, please contact:

Vasken Yardemian, Senior Staff Specialist  
Phone: 909-396-3296, Fax: 909-396-3632  
E-mail: [vyardemian@aqmd.gov](mailto:vyardemian@aqmd.gov)

# **ATTACHMENT A**

## **CERTIFICATIONS AND REPRESENTATIONS**



# South Coast Air Quality Management District

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

## **Business Information Request**

Dear SCAQMD Contractor/Supplier:

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

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

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

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

Sincerely,

Michael B. O'Kelly  
Chief Administrative Officer

DH:tm

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

REV 9/16



# South Coast Air Quality Management District

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

## BUSINESS INFORMATION REQUEST

Business Name	
Division of	
Subsidiary of	
Website Address	
Type of Business <i>Check One:</i>	<input type="checkbox"/> Individual <input type="checkbox"/> DBA, Name _____, County Filed in _____ <input type="checkbox"/> Corporation, ID No. _____ <input type="checkbox"/> LLC/LLP, ID No. _____ <input type="checkbox"/> Other _____

## REMITTING ADDRESS INFORMATION

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

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

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

**BUSINESS STATUS CERTIFICATIONS**

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

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

Statements of certification:

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

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

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

Check all that apply:

- |   |  |
|---|--|
| <input type="checkbox"/> Small Business Enterprise/Small Business Joint Venture | <input type="checkbox"/> Women-owned Business Enterprise                               |
| <input type="checkbox"/> Local business   | <input type="checkbox"/> Disabled Veteran-owned Business Enterprise/DVBE Joint Venture |
| <input type="checkbox"/> Minority-owned Business Enterprise                     | <input type="checkbox"/> Most Favored Customer Pricing Certification                   |

Percent of ownership: \_\_\_\_\_ %

Name of Qualifying Owner(s): \_\_\_\_\_

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

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

\_\_\_\_\_  
**NAME**

\_\_\_\_\_  
**TITLE**

\_\_\_\_\_  
**TELEPHONE NUMBER**

\_\_\_\_\_  
**DATE**

## Definitions

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

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

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

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

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

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

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

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

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

- a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
  - A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or
  - A manufacturer with 100 or fewer employees.
- b. Manufacturer means a business that is both of the following:
  - 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
  - 2) Classified between Codes 311000 to 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.

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

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

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

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



**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 <sup>1</sup>	Generally, exempt payees 1 through 5 <sup>2</sup>
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

<sup>1</sup> See Form 1099-MISC, Miscellaneous Income, and its instructions.

<sup>2</sup> 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](http://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](http://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](http://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 <sup>1</sup>
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor <sup>2</sup>
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 <sup>1</sup>  The actual owner <sup>1</sup>
5. Sole proprietorship or disregarded entity owned by an individual	The owner <sup>1</sup>
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor <sup>1</sup>
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 <sup>1</sup>
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

<sup>1</sup> 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.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup> 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.

<sup>4</sup> 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](mailto: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](mailto:spam@uce.gov) or contact them at [www.ftc.gov/idtheft](http://www.ftc.gov/idtheft) or 1-877-IDTHEFT (1-877-438-4338).

Visit [IRS.gov](http://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.

**2016 Withholding Exemption Certificate****590**

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

**Withholding Agent**

Name \_\_\_\_\_

**Payee**

Name \_\_\_\_\_

 SSN or ITIN  FEIN  CA Corp no.  CA SOS file n

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

City (if you have a foreign address, see instructions.) \_\_\_\_\_

State \_\_\_\_\_

ZIP code \_\_\_\_\_

**Exemption Reason**

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

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

- Individuals — Certification of Residency:**  
I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See Instructions for General Information D, Definitions.
- Corporations:**  
The corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly notify the withholding agent. See Instructions for General Information D, Definitions.
- Partnerships or Limited Liability Companies (LLCs):**  
The partnership or LLC has a permanent place of business in California at the address shown above or is registered with the California SOS, and is subject to the laws of California. The partnership or LLC will file a California tax return. If the partnership or LLC ceases to do any of the above, I will promptly inform the withholding agent. For withholding purposes, a limited liability partnership (LLP) is treated like any other partnership.
- Tax-Exempt Entities:**  
The entity is exempt from tax under California Revenue and Taxation Code (R&TC) Section 23701 \_\_\_\_\_ (Insert letter) or Internal Revenue Code Section 501(c) \_\_\_\_\_ (Insert number). If this entity ceases to be exempt from tax, I will promptly notify the withholding agent. Individuals cannot be tax-exempt entities.
- Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit-Sharing Plans:**  
The entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.
- California Trusts:**  
At least one trustee and one noncontingent beneficiary of the above-named trust is a California resident. The trust will file a California fiduciary tax return. If the trustee or noncontingent beneficiary becomes a nonresident at any time, I will promptly notify the withholding agent.
- Estates — Certification of Residency of Deceased Person:**  
I am the executor of the above-named person's estate or trust. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return.
- Nonmilitary Spouse of a Military Servicemember:**  
I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See Instructions for General Information E, MSRRA.

**CERTIFICATE OF PAYEE:** Payee must complete and sign below.

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

Under penalties of perjury, I hereby certify that the information provided in this document is, to the best of my knowledge, true and correct. If conditions change, I will promptly notify the withholding agent.

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

Payee's signature ► \_\_\_\_\_ Date \_\_\_\_\_

# 2016 Instructions for Form 590

## Withholding Exemption Certificate

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

### General Information

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

### A Purpose

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

Form 590 does not apply to payments of backup withholding. For more information, go to [ftb.ca.gov](http://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](http://edd.ca.gov) or call 888.745.3886.

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

**The following are excluded from withholding and completing this form:**

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

### B Income Subject to Withholding

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

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

- Payments to nonresidents for services rendered in California.
- Distributions of California source income made to domestic nonresident partners, members, and S corporation shareholders and allocations of California source income made to foreign partners and members.
- Payments to nonresidents for rents if the payments are made in the course of the withholding agent's business.

- Payments to nonresidents for royalties from activities sourced to California.
- Distributions of California source income to nonresident beneficiaries from an estate or trust.
- Endorsement payments received for services performed in California.
- Prizes and winnings received by nonresidents for contests in California.

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

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

### C Who Certifies this Form

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

An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number. 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. 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 it has qualified through the CA SOS to transact intrastate business. A corporation that has not qualified to transact intrastate business (e.g., a corporation engaged exclusively in interstate commerce) will be considered as having a permanent place of business in California only if it maintains a permanent office in California that is permanently staffed by its employees.

### E Military Spouse Residency Relief Act (MSRRA)

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

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

**Domicile** is defined as the one place:

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

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

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

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

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

### Withholding Agent Instructions

Keep Form 590 for your records. The certification remains valid for 5 years or until the payee's status changes. 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](http://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](http://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](http://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

## **Certification Regarding Debarment, Suspension, and Other Responsibility Matters**

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

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statute or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

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

---

Typed Name & Title of Authorized Representative

---

Signature of Authorized Representative Date

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

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## 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](http://www.aqmd.gov)). The list of current MSRC members/alternates can be found at the MSRC website (<http://www.cleantransportationfunding.org>).

### **SECTION I.**

**Contractor (Legal Name):** \_\_\_\_\_

DBA, Name _____, County Filed in _____ Corporation, ID No. _____ LLC/LLP, ID No. _____
--

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

\_\_\_\_\_  
\_\_\_\_\_

### **SECTION II.**

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

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

**Campaign Contributions Disclosure, continued:**

Name of Contributor \_\_\_\_\_

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

Name of Contributor \_\_\_\_\_

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

Name of Contributor \_\_\_\_\_

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

Name of Contributor \_\_\_\_\_

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

**I declare the foregoing disclosures to be true and correct.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**DEFINITIONS**

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

- (1) Parent subsidiary. A parent subsidiary relationship exists when one corporation directly or indirectly owns shares possessing more than 50 percent of the voting power of another corporation.
- (2) Otherwise related business entity. Business entities, including corporations, partnerships, joint ventures and any other organizations and enterprises operated for profit, which do not have a parent subsidiary relationship are otherwise related if any one of the following three tests is met:
  - (A) One business entity has a controlling ownership interest in the other business entity.
  - (B) There is shared management and control between the entities. In determining whether there is shared management and control, consideration should be given to the following factors:
    - (i) The same person or substantially the same person owns and manages the two entities;
    - (ii) There are common or commingled funds or assets;
    - (iii) The business entities share the use of the same offices or employees, or otherwise share activities, resources or personnel on a regular basis;
    - (iv) There is otherwise a regular and close working relationship between the entities; or
  - (C) A controlling owner (50% or greater interest as a shareholder or as a general partner) in one entity also is a controlling owner in the other entity.



# South Coast Air Quality Management District

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

## 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

<b>Staple Voided Check Here</b>	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 \_\_\_\_\_

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 7

PROPOSAL: Issue Program Announcement for Purchase of Electric School Buses 

SYNOPSIS: Since 2001, the SCAQMD has replaced approximately 1,600 pre-1994 school buses with alternative fuel buses and retrofitted nearly 3,400 more diesel school buses with particulate traps. Traditionally, the SCAQMD has funded the replacement of older diesel school buses only with the lowest certified commercially available alternative fuel school buses. According to CARB's latest revisions of the Lower-Emission School Bus Program Guidelines, the Carl Moyer Program AB 923 funds can be utilized to purchase electric school buses. This action is to issue a Program Announcement to solicit proposals from public school districts and joint power authorities to purchase electric school buses approved by CARB.

COMMITTEE: Technology, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTION:**

Issue Program Announcement #PA2017-01 to solicit proposals from public school districts and joint power authorities to purchase CARB-approved electric school buses and infrastructure.

Wayne Natri  
Acting Executive Officer

MMM:FM

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**Background**

Since the commencement of the Lower-Emission School Bus Program in 2001, SCAQMD has awarded nearly \$280 million in state and local funds to replace approximately 1,600 highly polluting school buses with alternative fuel buses and to retrofit nearly 3,400 newer diesel school buses with particulate traps. Traditionally, the SCAQMD has funded the replacement of older diesel school buses only with the lowest

certified commercially available alternative fuel school buses. According to CARB's latest revisions of the Lower-Emission School Bus Program Guidelines, posted as mail-out #MSC 15-25 in December 2015, the Carl Moyer AB 923 funds can be utilized to purchase electric school buses.

### **Proposal**

This action is to issue Program Announcement #PA2017-01 to solicit proposals from public school districts and joint power authorities to purchase CARB-approved electric school buses and infrastructure. The PA will close on February 10, 2017, and the Board will consider approval of the awards on May 5, 2017. Funding will be provided from the Carl Moyer Program AB 923 Fund (80).

Staff have been in discussions with CARB seeking approval to leverage the AB 923 funds with CARB's Hybrid and Zero Emission Truck and Bus Voucher Incentive Project (HVIP) funds. Therefore, after approval of the awards by the SCAQMD Board, schools will be required to apply to CARB for HVIP funds. Contracts will be executed only with those schools receiving awards from both the SCAQMD and CARB. The AB 923 funds together with the HVIP funds will cover the purchase price and sales tax of the electric school buses and up to \$20,000 per electric bus for infrastructure.

To assist in commercializing zero emission school buses, and in contrast to previous school bus funding programs, SCAQMD will not require eligible applicants to replace an older school bus while purchasing a new electric school bus. The final funding amount will be recommended at the time of Board approval for the proposed awards. Depending on the number of applications received, all requests may not be funded in their entirety.

### **Outreach**

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

**Benefits to SCAQMD**

The purchase of electric school buses under the Lower-Emission School Bus Program will help the deployment of the latest commercially available zero emission technologies, provide safer school transportation for school children, and reduce public exposure to toxic diesel particulate matter emissions.

**Resource Impacts**

Funding for the purchase of electric school buses will be provided from the Carl Moyer Program AB 923 Fund (80). The total funding amount will be recommended at the time of Board approval for the proposed awards.

**Attachment**

Program Announcement #PA2017-01 - Electric School Bus Funding Program

*Announcing South Coast Air Quality Management District's  
Electric School Bus Funding Program*

**Program Announcement & Application  
PA2017-01**

*December 2, 2016*

**Depending upon the number of applications received and availability of funding, the SCAQMD Board retains discretion to make full awards, partial awards or no awards at all under this Program Announcement. If the choice to make a partial award causes any bidder to withdraw, the funds that would have been awarded to that bidder will be re-allocated to the other bidders or allocated pursuant to a new program announcement. SCAQMD also reserves the right to change any criteria such as the schedule, qualifications, grant provisions and selection criteria outlined in this Program Announcement & Application.**

**December 2, 2016**

As part of the ongoing “Lower-Emission School Bus Program (LESB)”, the South Coast Air Quality Management District (SCAQMD) is pleased to announce a funding opportunity for purchasing new Type C or Type D electric school buses in the South Coast Air Basin. These buses have to be pre-approved by the state air pollution agency, the California Air Resources Board, “CARB” or “ARB”. Only public school districts, and those participating under a joint powers authority agreement (JPA), are eligible for these funds.

To assist in commercializing zero emission school buses (ZEBs), and in contrast to previous funding programs, SCAQMD does not require eligible applicants to replace an older school bus while purchasing a new electric school bus. However, after being approved for award by the SCAQMD Board on May 5, 2017, applicants will be required to apply to CARB for Hybrid and Zero Emission Truck and Bus Voucher Incentive Project (HVIP) funds to be eligible for participation in SCAQMD’s program.

## **Background**

Since 2001, when the Lower-Emission School Bus (LESB) Program began, SCAQMD has awarded nearly \$280 million in state and local funds to: replace 1,600 highly polluting older diesel school buses with clean alternative fuel, primarily CNG, buses and retrofit 3,400 more diesel school buses with PM traps. As a result of the LESB Program, thousands of school children travel in some of the cleanest and safest buses in the country.

As described later in the Program Announcement, awards for this new School Bus Program will be provided from the Carl Moyer Program AB 923 funds and CARB’s HVIP funds. Again, in contrast to previous funding programs, minimal to zero matching funds will be required of school districts to purchase these electric buses. Additional funds, up to \$20,000 per electric school bus awarded, will be provided to cover electric infrastructure for charging these buses.

The application deadline for Program Announcement PA2017-01 is 4:00 p.m. February 10, 2017.

The final funding awards will be subject to SCAQMD Board approval. Depending on the number of requests received, all requests may not be funded in their entirety.

## **Highlights of the School Bus Replacement Program**

### **Eligibility**

Only public school districts and joint power authorities (JPAs) in the South Coast Air Basin are eligible to apply.

## **Funding – CARB and SCAQMD.**

Funding for the purchase of CARB-approved electric school buses are provided by SCAQMD's AB 923 funds, and the HVIP program administered by CARB ("HVIP Incentive Voucher"). **After** being approved for AB 923 awards by the SCAQMD Board on May 5, 2017, school districts and eligible JPAs must apply for funding, through their vendors, to CARB program to reserve/obtain this HVIP Incentive Voucher. If school districts are not awarded HVIP funds, they will not be eligible for participation in SCAQMD's program and a contract will not be executed. d.

The HVIP Web link is at:

<http://www.californiahvip.org/>

After the school district receives the HVIP incentive for each bus, the SCAQMD will fund the remaining part of the base price of the electric school bus, inclusive of sales tax. (School districts will have to pay for any additional discretionary options that they may choose to include on the bus). Applying for HVIP funds **after** SCAQMD Board approval is mandatory if school districts want to qualify for SCAQMD funds.

SCAQMD Awards will include up to \$20,000 per electric bus for installing electric school bus recharging infrastructure.

Schools need to include the latest CARB Executive Order (1 page) for the electric school bus being ordered. Buses must have a GVWR of 14,000 lbs. or above and must be either Type C or D. CARB-approved Type C or D electric school buses are listed at the following link

[http://www.californiahvip.org/docs/HVIP\\_Year4\\_EligibleVehicles.pdf](http://www.californiahvip.org/docs/HVIP_Year4_EligibleVehicles.pdf)

Minimum length of service: Schools need to operate these new school buses for a minimum of 6,000 miles annually for 7 years from the date of CHP certification. Failure to do so may cause the reporting period to be extended until the operational target has been reached or the SCAQMD may seek other proper remedies.

## **Application – original & 3 hard copies with Superintendent's signature and digitized version**

The original plus three copies of the application must be received by SCAQMD no later than 4:00 p.m. Friday, February 10, 2017. (Applications will be rejected if not received by 4:00 p.m. sharp that day).

Also applicants must submit to SCAQMD's School Bus Program Supervisor the following:

- a) two Excel sheets with details of the school buses in the fleet - one hard copy that accompanies the application, and the other sent electronically to Ranji George at [rgeorge@aqmd.gov](mailto:rgeorge@aqmd.gov)
- b) a digitized version of the whole application

Please see below for further details of the Program, procedures to apply and the application forms.

Should you have any questions regarding this Program Announcement, please contact:

- Ranji S. George, Program Supervisor, at (909) 396-3255  
Email: [rgeorge@aqmd.gov](mailto:rgeorge@aqmd.gov).
- Or Ms. Lily Garcia, at (909) 396-2832, [lgarcia1@aqmd.gov](mailto:lgarcia1@aqmd.gov)
- Please note: SCAQMD is closed on Mondays.

The Program Announcement and Application PA2017-01 can also be accessed via the Internet by visiting SCAQMD's website at [www.aqmd.gov/grants-bids](http://www.aqmd.gov/grants-bids).

Our main objective is to reduce children's exposure to harmful emissions from diesel school buses. We look forward to receiving your application.

## **ATTACHMENTS**

Application Form and Procedures to Apply for Funding to Purchase New Electric School Bus

## **CERTIFICATIONS AND REPRESENTATIONS:**

- All Applicants need to provide updated Business Contact Information
- New Applicants need to fill in the Taxpayer ID information

***Funding for New Electric School Buses***

***(Only Public School Districts and Joint Power Authorities  
are eligible to apply)***

**PA2017-01**

***December 2, 2016***

***SCAQMD's Electric School Bus Funding Program***

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## ***I.A. PROGRAM INTRODUCTION***

In earlier rounds of funding, SCAQMD has provided about \$280 million in funding and replaced over 1,600 older diesel buses with new alternative fuel bus, primarily CNG, and has retrofitted nearly 3,400 more diesel buses with PM traps. Over 50 percent of these funds have been awarded to school districts located in disproportionately impacted areas. Thousands of students travel daily in these SCAQMD-funded school buses that are among the cleanest and safest in the country.

### **Funding Available for Electric School Buses**

#### **Background**

Under this Program Announcement, SCAQMD will be providing its AB 923 funds for the purchase of new CARB-approved Type C or D electric school buses with a gross vehicle weight, GVWR, of over 14,000 lbs. Only public school districts and joint power authorities are eligible to apply under this program.

Public school districts are required to apply to CARB's HVIP Program after SCAQMD Board approval of awards on May 5, 2017. If awarded HVIP funds, SCAQMD will fund the remaining balance of the base price of the bus in addition to sales tax. If school districts do not apply and are not awarded HVIP funds, they will become ineligible for SCAQMD's program and a contract will not be executed. If HVIP funds are awarded, SCAQMD's program will fund the remaining amount of the full purchase price including sales tax of the electric school bus(es). School districts will have to pay for any additional discretionary options that they may choose to include on the bus.

In addition, up to \$20,000 per electric school bus will be provided for electric charging infrastructure.

## ***I.B. PROGRAM SCHEDULE***

The implementation schedule is outlined below.

### **Tentative Schedule for Electric School Bus Purchase Program**

December 2, 2016 (Friday)	Issue Program Announcement & Application PA2017-01.
February 10, 2017 (Friday)	<b>Applications are due by 4:00 p.m.</b> Applicants are encouraged to apply well before this deadline.
May 5, 2017 (Friday)	SCAQMD Board to consider approval of staff's proposal on Electric School Bus awards.
July 18, 2017	All school bus purchase orders must be placed with vendors by school districts. Copies of vendor quotes and purchase orders

should be scanned and emailed or faxed to SCAQMD (attn. Ms. Lily Garcia, Fax: (909)396-3252).

March 30, 2018

New electric buses delivered and electric infrastructure completed.

***I.C. APPLICATION SUBMITTAL***

The applicant shall submit **four copies** (1 original and 3 copies) of the application, each marked **“Program Application PA2017-01”**. These four copies should be placed together in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the applicant, **no later than 4:00 p.m., Friday, February 10, 2017.**

The application package must be addressed to:

Mr. Dean D. Hughbanks, Procurement Manager  
**Re: Program Application PA2017-01**  
**Electric School Bus Purchase Program**  
South Coast Air Quality Management District  
21865 Copley Drive  
Diamond Bar, CA 91765

Applications must be **signed by the school’s superintendent**. (School superintendents shall not delegate this responsibility for signature to his or her deputy.). In addition, a digitized copy of the entire application and Excel sheet of fleet inventory should be emailed to the school bus program supervisor at [rgeorge@aqmd.gov](mailto:rgeorge@aqmd.gov).

***I.D. PARTICIPATION GUIDELINES, REQUIREMENTS, & CONDITIONS***

***Grant Provisions for the Electric School Bus Program***

***A. Electric School Bus Program Overview***

- Only public school districts within the jurisdiction of the SCAQMD that own and operate school buses, including under provisions of a joint powers authority, can apply for funding.
- The new electric school bus must have a manufacturer gross vehicular weight rating (GVWR) of greater than 14,000 pounds and be either Type C or Type D (CARB classification).
- To receive SCAQMD funding, the new electric school bus must be on the CARB approved list and also be CHP certified prior to operation. A copy of this CHP certificate must be included in the invoice.

1. The school district can apply for electric charging infrastructure funds. If awarded, school districts are eligible for up to \$20,000 per electric school bus. Funds will be disbursed after the electric charging infrastructure is installed and has begun operating.
2. The application form calls for specific information related to the new electric school bus. Additional information may be required on the bus purchased.
3. Applicants must provide complete documents pertaining to the new bus purchase, and infrastructure, including vendor quotes, vendor invoices, detailed listing of the infrastructure equipment, etc.
4. Additionally, these documents must be stored for a period of fifteen (15 years) after the date of delivery of the new bus(es). Access to these files, and personnel involved in the transactions, should be allowed in the event of an audit from either state or local authorities. After the first 7 years, files can be stored in digital form.
5. School districts need to include the latest CARB Executive Order (1 page) for the new electric bus being ordered.
6. With the application, applicants must include a print-out of the current school bus fleet inventory. Additionally, an electronic version of the fleet composition (preferably in Excel) should be sent directly to the Ranji George at [rgeorge@aqmd.gov](mailto:rgeorge@aqmd.gov).

***B. Electric School Bus Infrastructure Criteria Overview***

1. If funds for electric charging infrastructure are required, the applicant must make such request, and provide justification for the equipment requested. Applicant must seek at least 3 different quotes for the equipment purchase and installation, including warranties.
2. New infrastructure capacity requested will be directly related to the capacity needed by the new electric school buses awarded through this Program.
3. Electric charging infrastructure must meet all applicable local, state, federal and industrial codes.
4. The electric charging infrastructure must be installed by licensed electrician(s) with strong proven background in installing such infrastructure. Before hiring, school districts must provide evidence of the installer's experience (in installing electric recharging infrastructure for heavy-duty vehicles).
5. Requested infrastructure funds is strictly limited to offset the cost of procuring and installing new recharging equipment or expanding the capacity of an existing recharging station.

C. *State Law on Prevailing Wages*

Recipient, Contractor and subcontractors are bound by the **prevailing wage requirements** of California Labor Code section 1770 et seq (see below):

SB 854 provisions on Prevailing Wages

State legislation SB 854 (<http://www.dir.ca.gov/Public-Works/SB854.html>) requires all recipients or contractors, before they can accept funds from a public agency, to register with the Department of Industrial Relations (DIR). SCAQMD grant provisions will be amended to include the following:

PREVAILING WAGES – GRANTEE is alerted to the prevailing wage requirements of California Labor Code section 1770 et seq., and the compliance monitoring and enforcement of such requirements by the Department of Industrial Relations (“DIR”). GRANTEE and all of GRANTEE’s subcontractors must comply with the California Public Works Contractor Registration Program and must be registered with the DIR to participate in public works projects.

GRANTEE shall be responsible for determining the applicability of the provisions of California Labor Code and complying with the same, including, without limitation, obtaining from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work, making the same available to any interested party upon request, paying any applicable prevailing rates, posting copies thereof at the job site and flowing all applicable prevailing wage rate requirements to its subcontractors. Proof of compliance with these requirements must be provided to SCAQMD upon request. GRANTEE shall indemnify, defend and hold harmless the South Coast Air Quality Management District against any and all claims, demands, damages, defense costs or liabilities based on failure to adhere to the above referenced statutes.

For additional Prevailing Wage requirements, applicants are encouraged to visit the DIR website: [www.dir.ca.gov/PublicWorks/PublicWorks.html](http://www.dir.ca.gov/PublicWorks/PublicWorks.html)

***FUNDING ALLOCATIONS***

***A. Amounts of SCAQMD Funding and HVIP incentives***

1. Under its HVIP Program, CARB is making incentives available to assist with the purchase of the electric school buses. Applicants must apply, through the preferred bus vendor, to CARB to acquire this HVIP funding. The following link provides more information on these incentives

<http://www.californiahvip.org>

2. Eligible Type C or D electric school buses are listed at the following link

[http://www.californiahvip.org/docs/HVIP\\_Year4\\_EligibleVehicles.pdf](http://www.californiahvip.org/docs/HVIP_Year4_EligibleVehicles.pdf)

3. SCAQMD will coordinate its efforts with CARB and in case of school districts being awarded HVIP funds, SCAQMD will first deduct the HVIP voucher amount, and then pay the remaining balance of the retail price of the school bus, including sales tax as agreed upon by the SCAQMD with the bus vendor. SCAQMD's AB 923 funds will be the source of these funds. If the school district does not apply and is not awarded HVIP funds **after** SCAQMD Board approval, they will not be eligible for participation in SCAQMD's program and a contract will not be executed.
4. The basis for the amount of funding requested for the purchase of electric school bus infrastructure shall be documented in the application. Equipment purchased, the reasons for buying the specific equipment, warranties, installation costs should be identified. Infrastructure awards shall not exceed \$20,000 per new electric school bus awarded. These amounts will also be paid through AB 923 funds.

***B. School Matching Fund Requirement - special options***

1. No matching funds are required for the purchase of base electric school bus. SCAQMD intends to pay, after deducting CARB's HVIP incentives, the full retail price of the electric school bus in the amounts mutually agreed upon between SCAQMD and the electric school bus manufacturer.
2. School districts need only to pay for the special options ordered by the school district that are not included in the base electric bus cost. These special options (e.g., upgraded air conditioning, lift chair, retarders, etc.) must be listed in the application and the final invoice package.

***C. Authorizing Signature –Superintendent***

For the application and any subsequent Grant issued by the SCAQMD, the school district's superintendent must sign. Applications without Superintendent authorizing signatures will not be accepted. The superintendent cannot delegate his or her signature responsibility to his deputy or associate. If there is an acting or interim superintendent, supporting documents approved by the School Board must be included verifying the acting or interim capacity.

School district must submit the signed school bus application, and 3 copies, on or before the deadline of February 10, 2017, 4:00 p.m. (Any application received after 4:00 p.m. sharp that day will be rejected.)

#### ***D. Disbursement of Funds – steps involved***

1. Following application submittal, SCAQMD staff will evaluate the applications from the applying school districts. Staff will then propose awards to its Board based on eligibility criteria and funding availability. This process is estimated to take about 3 months.
2. SCAQMD Board has the final right to accept, reject, modify in whole or part, staff's proposal. The Board also reserves the right to add or delete, in whole or in part, the funding recommended.
3. Subsequent to Board approval, staff will notify school districts of the Board's decision and will begin generating grants for individual school districts, contingent upon an HVIP award. Given the volume of applications submitted and buses to be evaluated, this process may take up to 90 days.
4. Once SCAQMD issues the Grant, the school district's Superintendent must initial and sign both originals of the Grant documents. After the Superintendent's signature, both signed originals of the Grant are to be sent back to SCAQMD. Following the full execution of the Grant, one of the fully executed originals will be sent back to the school district.
5. The school district must provide a copy of the fully executed grant agreement and key attachments to the selected school bus vendor. Per the grant, without delay, a purchase order needs to be drafted for SCAQMD's review. After SCAQMD review and approval, this purchase order shall be issued promptly to the vendor. (SCAQMD's review of the draft purchase order will be limited to determining if the purchase order complies with SCAQMD's grant provisions).
6. The school district must then apply through its preferred bus vendor to obtain and reserve incentives from HVIP funds administered by CARB (see link above).
7. All electric school buses must be physically delivered to the school district by **March 30, 2018**.
8. Following the delivery of the new electric school bus(es) to the applicant, the vendor must collect all the necessary documents for a final invoice package to SCAQMD. School districts must fully cooperate with the vendor to provide these documents.
9. To receive reimbursement, a proof of vehicle delivery should be signed by the Director of Transportation. A copy of the CHP 292 certificate approving the use of the new bus, along with copies of the DMV title and DMV registration of the new bus(es), must be submitted through the bus supplier to SCAQMD. (The Grant will list the required documents needed for invoicing the SCAQMD.)
10. With regards to *electric infrastructure*, these funds will be paid on a reimbursement basis following completion of the electric recharging facility and submittal of the required

invoice and supporting documentation. The electric infrastructure must be completed and operational by **March 30, 2018**. Proof of completion shall accompany the invoice request for reimbursement.

11. Monies owed will be paid directly to the infrastructure installer. We strongly discourage the school district from paying the installer directly, but if it does, SCAQMD will require copies of the checks issued (both front and back) to the installer along-with the remainder of the documents listed in the Grant.

## ***PROJECT IMPLEMENTATION***

### ***A. Project Completion Deadlines and Penalties – for New Buses and Infrastructure***

1. School bus purchase orders must be placed no later than July 18, 2017.
2. New buses must be delivered no later than **March 30, 2018**. The business entity responsible for delaying the delivery of the buses may be subject to \$100 per day per bus penalty for buses delivered after March 30, 2018. This statement shall be included in purchase orders.
3. All electric charging infrastructure must be installed and begin operating by **March 30, 2018**.

### ***B. Monitoring, Invoicing and Reporting***

1. School districts must notify SCAQMD when the funded buses are ordered and again when the buses arrive on site. Prior to reimbursement, an inspection by SCAQMD may be required.
2. CHP 292 certificate(s) approving the new electric bus(es) is mandatory. A copy of the CHP 292 certificate should be included in the invoicing documentation required by SCAQMD. The Grant will list the documents required.
3. School districts must notify the SCAQMD's program supervisor by email to [rgeorge@aqmd.gov](mailto:rgeorge@aqmd.gov) when any equipment is ordered for the charging station and when the equipment is operating. (Prior to, or following reimbursement, an inspection by SCAQMD may be required.)
4. **Annual Reporting:** School districts must provide annual reports on the first week of January of each year. The reports must list the accumulated mileage of each electric school and include a copy of the annual CHP292 certification. Electric school buses should run at least 6,000 miles annually for 7 years. Failure to do so may cause the reporting period to be extended until the operational target has been reached or the SCAQMD may seek other proper remedies.
5. School districts are encouraged to report to SCAQMD any major repair (exceeding \$2,000 annually) on a bus, and also provide a review of their experience with electric school buses. These reviews will help manufacturers to improve the product for future funding cycles.

***I.E. IF YOU NEED HELP***

This Program Announcement and Application can be obtained by accessing the SCAQMD website at [www.aqmd.gov/grants-bids](http://www.aqmd.gov/grants-bids).

The following SCAQMD staff are available to answer questions about the application and the Grant:

**Mr. Ranji S. George**, Program Supervisor  
Technology Advancement Office  
Phone: (909)396-3255, Fax: (909)396-3252  
[rgeorge@aqmd.gov](mailto:rgeorge@aqmd.gov)

**Ms. Lily Garcia**, Office Assistant  
Technology Advancement Office  
Phone: (909)396-2832, Fax: (909)396-3252  
[lgarcia1@aqmd.gov](mailto:lgarcia1@aqmd.gov)

- Alternative Contact

**Ms. Drue Hargis**, Senior Public Information Specialist  
Technology Advancement Office  
Phone: (909)396-3237, Fax: (909)396-3774  
[dhargis@aqmd.gov](mailto:dhargis@aqmd.gov)

Please note: SCAQMD is closed on Mondays

**Appendix A**

**SCAQMD Electric School Bus Purchase Program**

**APPLICATION FOR GRANT TO PURCHASE ZERO- EMISSION ELECTRIC SCHOOL  
BUSES AND CHARGING INFRASTRUCTURE**

**Fiscal Year 2017-2018**

**PA2017-01**

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**GRANT APPLICATION FORM FOR THE  
ELECTRIC SCHOOL BUS PURCHASE PROGRAM  
Program Announcement PA2017-01**

(Please return signed application with next 4 pages filled out)

School District: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: CA. Zip Code: \_\_\_\_\_

School District Primary Contact Person: \_\_\_\_\_

Name/Title: \_\_\_\_\_

Phone No.: \_\_\_\_\_ Ext: \_\_\_\_\_ Fax: No.: \_\_\_\_\_

Email (please print): \_\_\_\_\_

Alternative Contact (name, title, phone, email address – please print)

\_\_\_\_\_

# of Electric School Buses Requested \_\_\_\_\_

CARB (state) HVIP funds requested (per electric bus) \_\_\_\_\_ Total HVIP \_\_\_\_\_

SCAQMD Funds Amount Requested (after state HVIP funds) \_\_\_\_\_

School Funds for Special Options (per Bus): \_\_\_\_\_

Total School funds for Options \_\_\_\_\_

*An authorizing resolution from the school board approving this application must be attached. If the resolution is not available at the time of the application submission, it should be sent to the program supervisor within 2 months the application submittal.*

Electric Charging Infrastructure Funds Requested (per Bus): \_\_\_\_\_

Total Infrastructure Requested \_\_\_\_\_

Superintendent's Signature (not to be delegated) \_\_\_\_\_

Name of School Supt. (please print): \_\_\_\_\_ Date Signed \_\_\_\_\_

Please attach business cards of Superintendent, primary and alternative contact persons. Also attach any notes or feedback applicant wants to provide to SCAQMD.

*INFORMATION ON NEW ELECTRIC SCHOOL BUSES TO BE PURCHASED*

- Must be CARB approved, GVWR above 14,000 lbs., and must be a Type C or Type D school bus
- Requested bus must be listed on CARB HVIP link:
  - [http://www.californiahvip.org/docs/HVIP\\_Year4\\_EligibleVehicles.pdf](http://www.californiahvip.org/docs/HVIP_Year4_EligibleVehicles.pdf)
- For each bus make, please include ARB approval/certification for that bus

<b>Bus Manufacturer /Supplier *</b>	<b>Make, Model, and year of bus</b>	<b>Company who packaged the electric drivetrain</b>	<b>GVWR (must be at least 14,000 lbs.)</b>	<b>Promised Range of electric school bus with on a full charge</b>	<b>Warranties on the batteries</b>	<b>Warranties on electric drive train</b>	<b>Eligible CARB HVIP amount for bus</b>	<b>Total retail price (including sales tax)**</b>

\* Please include the full contact details of the manufacturer and distributor of the electric school bus(es) being purchased. Please attach business cards of primary contacts at manufacturer and distributor

\*\* Please list retail price for the base electric school bus (i.e. without special options such as upgraded A/C, lift chair etc.).

Information on Diesel and CNG school buses:

- How many diesel pre-1994 buses left in your fleet (GVWR over 14,000 lbs.)? \_\_\_\_\_
- Total number of 1994 and newer diesel buses in the fleet \_\_\_\_\_
  - # of buses with Level 3 PM traps (1994 and newer) \_\_\_\_\_
  - # of buses without Level 3 PM traps (1994 and newer) \_\_\_\_\_
- Total number of CNG/propane buses in the fleet \_\_\_\_\_
- Do you have CNG/propane refueling site at your facility? \_\_\_\_\_ Yes/No
- Approximate price being paid for CNG refueling: \$/gge: Propane: \$/gge:

Fleet Inventory:

- Please provide details of each school bus that remain in School District fleet in an Excel worksheet. Please include details of each bus (make, model, manufacturer, passenger capacity, engine make, model, year, fuel type, VIN#, license plate, accumulate mileage).
- For 1994 and newer models, please identify which diesel buses have Level 3 PM traps and which do not.
- Please print this Excel worksheet and attach to application, and send an electronic version to Ranji George at [rgeorge@aqmd.gov](mailto:rgeorge@aqmd.gov).

Also, with regards to the new electric school buses, please identify any discretionary options being purchased by the school district, and their additional prices (inclusive of sales tax):

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**ELECTRIC CHARGING INFRASTRUCTURE GRANT APPLICATION (PA2017-01)**

Please answer all questions below. (If non-applicable, write N/A.)

Number of new Electric School buses applied for: \_\_\_\_\_

Amount of funds requested: \_\_\_\_\_

Local Electric Utility Company: LADWP or Edison or local utility (please name it)

\_\_\_\_\_

Please get three quotes to install the electric charging infrastructure (minimum 208 to 220 volts), and attach copies of the quotes, and estimated time required to complete the installation. In each quote, please ensure what equipment is installed and labor charges. (Note: to install the new recharging equipment, it is not necessary to move your CNG buses or CNG refueling.)

Electrical infrastructure quotes included with this application: Yes/ No.

Estimated infrastructure cost per bus \_\_\_\_\_

Please answer the following on the electrical charging infrastructure:

- a) Before selecting the vendor, did school district staff make site visit(s) of the installing vendor's previous installations, and check vendor references?
- b) Will bollards be installed to protect the chargers from being accidentally damaged?
- c) Will remote monitoring of state of on-board battery charge on the bus be included?
- d) Will remote monitoring of the external charging system be included?
- e) Please identify the make, model and capacity and cost of the chargers.
- f) Did the vendor describe the safety features of the charging system?
- g) What warranties, if any, were offered with the charging system?

Additional comments (if necessary, please attach additional pages):

\_\_\_\_\_  
\_\_\_\_\_

**South Coast  
Air Quality Management District**

SAMPLE GRANT FOR NEW BUS AWARD (not to be returned with application)

**Sample Provisions. SCAQMD reserves the right to amend these provisions.**

**GRANT AWARD & AUTHORIZATION FORM  
New Electric School Bus Replacement Funding Program  
Pursuant to Program Announcement PA2017-01**

1. Your grant application to purchase new electric school buses has been approved for funding by the South Coast Air Quality Management District (“SCAQMD”) Governing Board. The term “electric school bus” includes school buses powered by batteries only or by hydrogen fuel cells or a combination of both. The new electric school bus must be either a Type C or D and must be pre-approved by California Air Resources Board (“CARB”). The bus must comply with all relevant federal and state regulations.

A summary of the grant provisions are listed below:

<b>GRANTEE</b>	
<b>Grant Number</b>	
<b>Number of Electric School Buses Awarded</b>	YY
<b>Required School Match for Above Buses</b>	Zero
<b>a. Total School Bus Replacement Grant Award</b>	YY
<b>b. Total Infrastructure Grant Award</b>	\$20,000
<b>Maximum SCAQMD Award (a+b)</b>	
<b>Source of Funding</b>	<i>Fund 80/AB 923</i>
<b>Deadline for Physical Delivery of All Buses</b>	<b>Not later than March 30, 2018</b>
<b>Deadline for the Installation of the Electric Charging Station</b>	<b>Not later than March 30, 2018</b>
<b>Agreement Term with SCAQMD</b>	<b>March 30, 2027</b>
<b>Date to which School District must own and operate the new bus received under this Program</b>	<b>At minimum, to March 30, 2025</b>
<b>Date to Which All Records (relating to this Grant) Need to be Retained</b>	<b>March 30, 2034</b>

2. PARTIES - The parties to this Grant Award Agreement (“Agreement”) are the South Coast Air Quality Management District (“SCAQMD”) whose address is 21865 Copley Drive, Diamond Bar, California 91765-4178, and School District (“GRANTEE”) whose address \_\_\_\_\_

3. AGREEMENT TERM – The term of this Agreement is from the date of execution by both parties through **March 30, 2027**, unless further extended by amendment of this Agreement in writing. No work shall commence until this Agreement is fully executed by all parties. Inclusive of the Agreement term, there are two timeframes: A) **Project Completion**, which is from the date of grant execution to the date the last new school bus has been ordered, delivered and placed into operation; and B) **Project Implementation**, which is from the date the final invoice has been paid until the end date of this Agreement.
4. ADDITIONAL TERMS –To receive funds pursuant to this Grant, GRANTEE must comply with all of the following terms and conditions including those set forth in the following documents, which are attached and incorporated as part of this Grant.
  - a. Information on the Electric School bus(es) to be purchased (**Attachment A-1**);
  - b. SCAQMD’s Electric School Bus Funding Program Announcement and Application **PA2017-01** dated December 2, 2016 (Attachment D);

In addition to the terms and conditions in this Grant, if a document was required as part of the application as specified by the Program Announcement, and has not yet been provided by GRANTEE to the SCAQMD, GRANTEE must provide such document(s) prior to grant execution.

5. PROVIDE VENDOR COPY OF GRANT - Copies of this Agreement must be provided to the vendor(s) selected to provide new electric school bus(es) and to vendor(s) that will install the electric charging infrastructure. This will, among other elements, enable the vendor to assist GRANTEE in complying with the terms and conditions of this Grant.
6. VENDOR TO DIRECTLY BILL SCAQMD - SCAQMD prefers that each vendor bill SCAQMD directly for electric school bus(es) delivered and electric charging station installed. GRANTEE is discouraged from paying the vendor directly, but if it does the GRANTEE must submit copies of the front and back of all cancelled check(s) paid to vendor along with all the required documentation listed in Clause 11 below (for buses) and/or Clause 16 (for electric charging infrastructure).
7. PROJECT MILESTONES – GRANTEE must achieve the following milestones under this Agreement:
  - a. Issue purchase order (PO) to purchase new electric school bus(es) by **July 18, 2017**;
  - b. Have all new buses delivered by vendor to GRANTEE no later than **March 30, 2018**;
  - c. Ensure that the electric school buses being purchased are new, Type C or D, and are ARB certified.
  - d. School districts apply and receive/reserve the CARB’s HVIP incentives for each electric school bus ordered
  - e. For reimbursement for new buses, vendor to submit invoice, along with required documentation from GRANTEE, to SCAQMD no later than **May 15, 2018** (see Clause 11 below for required documents to accompany new school bus invoice);
  - f. Install Electric Charging Station(s) no later than **March 30, 2018**;
  - g. For reimbursement for alternative fuel infrastructure, vendor to submit invoice along with required documentation to SCAQMD no later than **May 15, 2018** (see Clause 16 below for required documents to accompany infrastructure invoice);
8. PURCHASE ORDER & PENALTIES - GRANTEE must place purchase orders for the new bus(es) no later than **July 18, 2017**. Prior to its issuance, a copy of the purchase order from GRANTEE to the school bus vendor (and if applicable to the installer of the electric charging infrastructure) must be faxed to Ms. Lily Garcia at fax number (909) 396-3252 (or sent via email to [lgarcia1@aqmd.gov](mailto:lgarcia1@aqmd.gov)) no later than **July 7, 2017**. Per CARB guidelines, a provision shall be explicitly included in the purchase order stating: “A withhold of \$100 per bus per day will be imposed on the vendor by the SCAQMD for each day and each bus that is delivered after **March 30, 2018** to the GRANTEE.” In addition, the purchase order shall include the following clause: “Bus vendor shall invoice SCAQMD directly for GRANTEE’s award.”

9. CALIFORNIA CARB HVIP INCENTIVES – School district, through its vendor, must apply and reserve the HVIP incentive from CARB for each new electric school bus. The CARB link to do so is:

<http://www.californiahvip.org>

Eligible electric school buses are listed at:

[http://www.californiahvip.org/docs/HVIP\\_Year4\\_EligibleVehicles.pdf](http://www.californiahvip.org/docs/HVIP_Year4_EligibleVehicles.pdf)

10. PAYMENT TERMS SCAQMD will pay for new electric school buses, Type C or Type D, in an amount not exceeding the base price (covering listed base options), and sales tax, less CARB's HVIP incentives for each bus.

11. DOCUMENTATION NEEDED FOR PAYMENT OF NEW ELECTRIC SCHOOL BUS(ES)

GRANTEE shall coordinate with bus vendor to provide SCAQMD with the following documentation:

- a. **Original invoice** for each bus identifying:
  - i. details of each new electric bus delivered including, but not limited to, the make, model year of the bus and drivetrain including its batteries, battery capacity, motor, etc., vehicle identification number (VIN), passenger capacity, gross vehicle weight and wheel-chair capacity, if any;
  - ii. a clear copy or photo of the bus tag of each new electric school bus received
  - iii. special options ordered by the school district over what is included in the base;
  - iv. documentation of California CARB's HVIP incentives received
  - v. Net SCAQMD's contribution over and above the HVIP incentive received
- b. **Cover letter** (an original) signed and dated by GRANTEE's Director of Transportation, or his/her equivalent, confirming, under penalty of perjury, the following:
  - i. details of the new buses delivered as listed in Clause (a)( i) above;
  - ii. grant number to which the invoice should be charged;
  - iii. date when the bus was physically delivered to the school district;
  - iv. approval of the invoice and its contents;
  - v. amount of HVIP incentive funds received
  - vi. amount of electric infrastructure funds requested
  - vii. a request stating that SCAQMD pay its net contribution to the bus vendor directly; and
  - viii. that the school district will pay its contribution (for special options) directly to the bus vendor.
- c. A copy of the **first page** of this Grant Award (that contains the Summary Table) and
- d. The above documentation must be received by SCAQMD on or before **May 15, 2018**, attention: Ms. Lily Garcia, TAO, SCAQMD, 21865 Copley Drive, Diamond Bar, CA 91765.
- e. The PDF scan of the whole invoice package
- f. An electronic file of the Grantee's current fleet inventory, with details of each school bus in the inventory. Please send this inventory by email to [rgeorge@aqmd.gov](mailto:rgeorge@aqmd.gov)

12. TERM OF OWNERSHIP - GRANTEE (school district) is required to own and operate the newly acquired electric school buses within the South Coast Air Quality Management District for **at least seven years** from the date of physical delivery. School district must operate a minimum of 6,000 miles per calendar year for 7 years. Failure to operate the electric school bus to this threshold (of 6,000 miles) may result in the transfer of the electric bus to another public school district. School district can choose to keep and operate the bus after the 7 year period.

13. RIGHT OF INSPECTION – Before payment of invoice, SCAQMD and/or CARB reserves the right to inspect all school buses and infrastructure purchased and/or installed pursuant to this Agreement.

14. ELECTRIC RECHARGING INFRASTRUCTURE – SCAQMD requires the following:
  - a. that electrical charging infrastructure be installed by a licensed contractor;
  - b. that the installing contractor have substantial direct experience in installing electrical charging infrastructure for heavy duty battery operated vehicles
  - c. that the infrastructure funded under this Agreement comply with all applicable laws, regulations and codes including, but not limited to, those pertaining to building, safety, fire, health, public contracting and public works, and with any local codes that may provide additional safety;
  - d. that a fire permit or equivalent certification be issued by a licensed engineer, a copy of which must be enclosed with the invoice for infrastructure;
  - e. that the electrical charging infrastructure construction must be completed by **March 30, 2018**, unless SCAQMD grants a written extension due to exceptional circumstances; and
  - f. that Grantee place an SCAQMD logo, as a permanent fixture, in a prominent location at their fueling station; the design and format of the SCAQMD logo will be provided by SCAQMD’s program supervisor.
  
15. PREVAILING WAGES FOR INFRASTRUCTURE CONSTRUCTION. GRANTEE is alerted to the prevailing wage requirements of California Labor Code section 1770 et seq., and the compliance monitoring and enforcement of such requirements by the Department of Industrial Relations (“DIR”). GRANTEE and all of GRANTEE’s subcontractors must comply with the California Public Works Contractor Registration Program and must be registered with the DIR to participate in public works projects. GRANTEE shall be responsible for determining the applicability of the provisions of California Labor Code and complying with the same, including, without limitation, obtaining from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work, making the same available to any interested party upon request, paying any applicable prevailing rates, posting copies thereof at the job site and flowing all applicable prevailing wage rate requirements to its subcontractors. Proof of compliance with these requirements must be provided to SCAQMD upon request. GRANTEE and GRANTEE’s subcontractors shall indemnify, defend and hold harmless the South Coast Air Quality Management District against any and all claims, demands, damages, defense costs or liabilities based on failure to adhere to the above referenced statutes.
  
16. DOCUMENTATION NEEDED FOR PAYMENT FOR ELECTRICAL CHARGING INFRASTRUCTURE  
GRANTEE shall coordinate with all infrastructure contractors to provide SCAQMD with the following documentation:
  - a. **An itemized invoice** (an original) must be submitted from the infrastructure contractor verifying installation, acceptance and operation of the electric recharging station. The invoice should include applicable details of the equipment installed (make, model, year charging rate, etc., number of chargers etc.), the cost of materials and labor, sales tax, warranties, and, if applicable, maintenance agreement.
  - b. **Evidence that a safety permit** or equivalent certification by a licensed engineer was issued for installation of the recharging station.
  - c. **Cover letter** (an original) signed and dated by GRANTEE’s Director of Transportation, or his/her equivalent, confirming, under penalty of perjury, the following:
    - i. the invoice contents
    - ii. the grant number to which the invoice needs to be charged
    - iii. specific details of the work done
    - iv. date of completion of infrastructure construction
    - v. acceptance of the infrastructure construction
    - vi. that SCAQMD should pay SCAQMD’s contribution to the vendor directly,
    - vii. that the SCAQMD logo has been permanently installed at the station.
  - d. **Copies of the bid documents**, if any, issued by GRANTEE (school district), responses to the bid, engineering drawings in 8.5 by 11 size, and photos of the final installation.

17. DEADLINE FOR ALTERNATIVE FUEL STATION DOCUMENTATION – Above documentation for electric recharging station must be provided to SCAQMD no later than **May 15, 2018**. Please submit these documents to Ms. Lily Garcia, TAO, SCAQMD, 21865 Copley Drive, Diamond Bar, CA 91765.
18. NON-COMPLIANCE – SCAQMD reserves the right to cancel this Agreement or withhold payment for GRANTEE's non-compliance with the Agreement. Further, SCAQMD reserves the right to cancel the Agreement if it is not executed by GRANTEE within 30 days of the receipt of this Grant.
19. ENFORCEMENT – SCAQMD and CARB have the authority to enforce the terms of this Agreement at any time during the Agreement term plus two years. SCAQMD and CARB will seek whatever legal, equitable and other remedies are available for the GRANTEE's failure to comply with the terms of this Agreement or with the Lower-Emission School Bus Program requirements incorporated herein.
20. AUDIT RIGHTS – SCAQMD, CARB, and the California Department of Finance, or their designee(s), shall have the right to inspect the buses purchased under this Grant, electric recharging infrastructure, and review and copy any records and supporting documentation pertaining to the performance of this Agreement. GRANTEE agrees to allow the auditor(s) access to these new buses, and records during normal business hours and to allow interviews of any employees who might reasonably have information related to such these buses and records.
21. AUDIT OF SUBCONTRACTORS - GRANTEE must include a similar right, as Clause 20 above, for CARB, the State and SCAQMD, or their designee(s), to audit records and interview staff in any subcontract related to the performance of this Agreement.
22. REPORTING REQUIREMENTS - During the term of this Agreement, for the first 7 years, in January of each year, GRANTEE agrees to provide annual reports to SCAQMD on the accumulated mileage of its electric school buses and a copy of the annual CHP292 certification of each electric school bus.
23. RECORDS AND RECORDS RETENTION – GRANTEE shall maintain and retain records related to this Agreement for the Agreement term plus two years, or until **March 30, 2034**, whichever is later. These records shall be maintained in print form for the first seven (7) years of this Agreement but may be maintained electronically thereafter. These records include but are not limited to the following:
  - A. Application and all documents provided with and subsequent to the application submittal;
  - B. Vendor quotes for the new buses and electric recharging station;
  - C. A copy of the CARB electric school bus certification for the electric school bus(es) purchased under this Agreement;
  - D. Purchase orders for the buses and recharging station;
  - E. Executed contracts;
  - F. Proof of delivery of the new electric school bus(es) and special options purchased and installed on the bus(es);
  - G. All invoice(s) related to the project including documents required for payment (refer to Clause 11);
  - H. If GRANTEE paid its vendor directly, GRANTEE must retain proof of payment; and
  - I. Maintenance records.
24. NOTICES – Any notices from either party to the other shall be given in writing to the attention of the persons listed below, or to other such addresses or addressees as may hereafter be designated in writing for notices by either party to the other. Notice shall be given by certified, express or registered mail, return receipt requested, and shall be effective as of the date of receipt indicated on the return receipt card.

SCAQMD:                   Ranji George, School Bus Program  
                              South Coast Air Quality Management District  
                              21865 Copley Drive  
                              Diamond Bar, CA 91765-4178

GRANTEE:

25. ASSIGNMENT - The rights granted hereby may not be assigned, sold, licensed, or otherwise transferred by either party without the prior written consent of the other, and any attempt by either party to do so shall be void upon inception.
  
26. NON-EFFECT OF WAIVER - The failure of GRANTEE or SCAQMD to insist upon the performance of any or all of the terms, covenants, or conditions of this Grant, or failure to exercise any rights or remedies hereunder, shall not be construed as a waiver or relinquishment of the future performance of any such terms, covenants, or conditions, or of the future exercise of such rights or remedies, unless otherwise provided for herein.
  
27. INDEMNIFICATION – GRANTEE agrees to hold harmless, defend and indemnify SCAQMD, its officers, employees, agents, representatives, and successors-in-interest against any and all loss, damage, costs, lawsuits, claims, demands, causes of action judgments, attorney’s fees, or any other expenses arising from or related to any third party claim against SCAQMD, its officers, employees, agents, representatives, or successors-in-interest that arise or result in whole or in part, from any actual or alleged act or omission of GRANTEE, its employees, subcontractors, agents or representatives in the performance of this Grant. This Indemnification Clause shall survive the expiration or termination (for any reason) of the Grant and shall remain in full force and effect.
  
28. ATTORNEYS' FEES - In the event any action is filed in connection with the enforcement or interpretation of this Grant, each party shall bear its own attorneys' fees and costs.
  
29. FORCE MAJEURE - Neither SCAQMD nor GRANTEE shall be liable or deemed to be in default for any delay or failure in performance under this Grant or interruption of services resulting, directly or indirectly, from acts of God, civil or military authority, acts of public enemy, war, strikes, labor disputes, shortages of suitable parts, materials, labor or transportation, or any similar cause beyond the reasonable control of SCAQMD or GRANTEE.
  
30. DE-OBLIGATION OF UNSPENT BALANCES - Upon thirty (30) days' written notice to GRANTEE, SCAQMD may de-obligate from the Grant funds that remain unexpended by the reimbursement deadline listed unless extended in writing. GRANTEE to initial here acknowledging consent to de-obligation of non-expended funding.  
\_\_\_\_\_
  
31. SUPERINTENDENT CERTIFICATION – By initialing here, Superintendent certifies that he/she had the authority to submit the application applying for the funds under this grant award and that the individual identified in Clause 24 (Notices) is the individual authorized to implement the project. \_\_\_\_\_

32. GOVERNING LAW - This Grant shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California. Venue for resolution of any disputes under this Grant shall be Los Angeles County, California.
33. TERMINATION – GRANTEE’s failure to comply with any term or condition of this Agreement shall constitute a material breach of this Agreement. SCAQMD will either notify the GRANTEE that it must timely cure this breach, or provide ten (10) days written notification of SCAQMD’s intention to terminate this Contract. In addition, SCAQMD reserves the right to terminate this Agreement, in whole or in part, without cause, upon thirty (30) days written notice. Once such notice has been given, GRANTEE shall, except as otherwise directed by SCAQMD, discontinue any work being performed under this Agreement and cancel all of GRANTEE’s orders in connection with such work, and shall use its best efforts to terminate existing subcontracts upon terms satisfactory to SCAQMD. Thereafter, GRANTEE shall perform only such services as may be necessary to preserve and protect any work already in progress and to dispose of any property as requested by SCAQMD. GRANTEE shall also promptly deliver to SCAQMD all copies of documentation and other information and data prepared or developed by GRANTEE under this Agreement. GRANTEE will be paid in accordance with this Agreement for work performed before the effective date of termination.
34. ENTIRE GRANT - This Grant represents the entire agreement between SCAQMD and GRANTEE and there are no understandings, representations, or warranties of any kind except as expressly set forth herein. No waiver, alteration, or modification of any of the provisions herein shall be binding on any party unless in writing and signed by the party against whom enforcement of such waiver, alteration, or modification is sought.

The undersigned parties agree to the terms and conditions as set forth in this Grant. The undersigned parties certify under penalty of perjury that they are duly authorized to bind the parties to this Grant.

GRANTOR:  
**South Coast**  
**Air Quality Management District**

GRANTEE:  
**( )Unified School District**

\_\_\_\_\_  
**Signature of Authorized Official**

\_\_\_\_\_  
**Signature of Authorized Official**

Name: Dr. William A. Burke

Name: \_\_\_\_\_

Title: Chairman, Governing Board

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

## Appendix B

### *CERTIFICATIONS AND REPRESENTATIONS*

1. Business Contact Information
2. W9-with EIN Taxpayer ID#



# South Coast Air Quality Management District

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

## Business Contact Information Request

Dear SCAQMD Contractor/Supplier:

The 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, complete the enclosed W-9 form, remember to sign both documents for our files, and return them as soon as possible to the address below:**

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

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

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

Sincerely,

Michael B. O'Kelly  
Chief Administrative Officer

DH:tm

Enclosures: Business Contact Information Request  
W-9 tax form with EIN number

All applicants: Please return this completed page with Application



# South Coast Air Quality Management District

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

## BUSINESS CONTACT 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: Ms. Lily Garcia, TAO, SCAQMD**  
**21865 Copley Drive**  
**Diamond Bar, CA 91765-4178**

Please return this completed page with Application

Form **W-9**  
(Rev. January 2011)  
Department of the Treasury  
Internal Revenue Service

**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.	Name (as shown on your income tax return)	
	Business name/disregarded entity name, if different from above	
	Check appropriate box for federal tax classification (required): <input type="checkbox"/> Individual/sole proprietor <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ <input type="checkbox"/> Exempt payee <input type="checkbox"/> Other (see instructions) ▶ _____	
	Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
	City, state, and ZIP code	
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 the "Name" line to avoid backup withholding. For individuals, this is 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.

<b>Social security number</b>										

**Note.** If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

<b>Employer identification number</b>										

**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).

**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 4.

<b>Sign Here</b>	Signature of U.S. person ▶	Date ▶
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**General Instructions**

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

**Purpose of Form**

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

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.

**Note.** If 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 on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the 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 withholding on your share of partnership income.

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 8

**PROPOSAL:** Approve Trucks, Transport Refrigeration Units and Infrastructure Projects under Proposition 1B-Goods Movement Program 

**SYNOPSIS:** On June 3, 2016, the Board approved the issuance of a Program Announcement to solicit eligible truck projects, transport refrigeration units (TRUs) and related infrastructure for the Proposition 1B-Goods Movement Program. The Program Announcement closed on August 4, 2016. Staff has completed the evaluation of the eligible projects, subject to the final rank order approval by CARB. This action is to execute contracts for eligible trucks, TRUs and infrastructure projects, subject to the final rank order approval by CARB, until all program funds designated for truck projects and TRUs are exhausted from the Proposition 1B-Goods Movement Program Fund (81). Projects not selected for funding will remain on the ranked lists in the event funds are reallocated from projects that fall through or funding from other project categories become available.

**COMMITTEE:** Technology, November 18, 2016. Less than a quorum was present; the Committee Members concurred that this item be approved by the Board.

**RECOMMENDED ACTION:**

Authorize the Executive Officer to execute contracts for eligible trucks, TRUs and infrastructure projects on Tables 1 and 2, based on the final rankings approved by CARB, until all the Program funds designated for truck projects and TRUs are exhausted from the Proposition 1B-Goods Movement Program Fund (81).

Wayne Natri  
Acting Executive Officer

## **Background**

Proposition 1B authorizes \$1 billion to CARB for the Goods Movement Emission Reduction Program. Projects funded by this Program must achieve early or extra emission reductions not otherwise required by rules or regulations. To date, CARB has granted close to \$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 vast majority of these projects are currently operational, providing significant emission reduction benefits to the region.

In September 2015, CARB approved new funding awards for the Program including \$137.9 million for the Los Angeles/Inland Empire trade corridor, which are comprised of Year 5 funds as well as the unspent funds from Year 4. About \$100.9 million of these funds are set aside for heavy-duty truck projects, zero emission transportation refrigeration units (TRUs) and supporting infrastructure. The remaining \$37 million are allocated for locomotive, ships at berth and cargo handling equipment projects. Last year, the Board released a Program Announcement for trucks, TRUs and supporting infrastructure for this Program. On March 4 and May 6, 2016, the Board approved awards amounting to \$58,884,000. Since the program was undersubscribed, a new Program Announcement (PA2016-10) was released on June 3, 2016, and closed on August 4, 2016, with an oversubscription of requests for the remaining funds.

## **Outreach**

Relative to the Proposition 1B-Goods Movement Program projects, and 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>).

## **Proposal**

Staff has completed the evaluation of applications received in response to PA2016-10. This action is to approve contracts for trucks, TRUs and related infrastructure projects as listed on Tables 1 and 2, based on the final ranked lists approved by CARB, until all the Program funds designated for truck projects and TRUs are exhausted from the Proposition 1B-Goods Movement Program Fund. Once approved by CARB, the final ranked lists will be posted on the SCAQMD website as required by the Proposition 1B Program Guidelines. Projects not selected for funding will remain on the ranked lists in

the event funds are reallocated from projects that fall through or funding from other project categories become available. Some of the proposed projects include engines or equipment that are not yet commercially available. For these projects a longer implementation timeframe is allowed per the grant agreement executed between CARB and SCAQMD. Specifically, all contracts must be executed by July 1, 2017, with commercially available large fleet projects to be operational by January 1, 2019, and with the currently not commercially available large fleet projects to be operational by July 1, 2020.

**Benefits to SCAQMD**

The successful implementation of the trucks, TRUs and supporting infrastructure projects will reduce NOx, PM and other pollutant emissions in a cost-effective and expeditious manner which will help achieve the goals of the AQMP. The new equipment and vehicles funded under this Program are expected to operate for many years, which will provide long-term emission reduction benefits in the region.

**Resource Impacts**

Funding for the proposed projects shall not exceed the total amount of project funds designated for trucks and TRUs in the Proposition 1B-Goods Movement Program Fund (81).

**Attachments**

Table 1: Heavy-Duty Truck Projects

Table 2: TRUs and Infrastructure Projects

**Table 1: Heavy-Duty Truck Projects**

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
16-2016-132079	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
15-2016-006	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
5-2016-17792	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA139	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
13-2016-BB111	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
5-2016-17793	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18041	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17783	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15282	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17779	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA136	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
13-2016-AA137	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-17788	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA135	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-18056	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA141	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-17014	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15687	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA164	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-18122	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15596	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
18-2016-001	Crossroads Equipment Lease & Finance LLC / Fleet Logic LLC dba Velocity Truck Rental & Leasing	Low NOx Replacement Truck	\$100,000
15-2016-022	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
15-2016-021	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
13-2016-BB110	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
5-2016-17785	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208014	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-17778	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA161	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-18123	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15277	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
15-2016-028	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
5-2016-18100	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
15-2016-017	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
5-2016-15280	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
15-2016-026	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
5-2016-18125	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
15-2016-025	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
5-2016-18087	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA160	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-17021	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18082	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
15-2016-018	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
15-2016-024	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
15-2016-001	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
15-2016-005	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
13-2016-208017	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-17774	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15243	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208018	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-15279	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18104	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208015	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-17017	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15256	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18099	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18054	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-BB113	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
15-2016-004	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
15-2016-020	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
13-2016-BB109	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
15-2016-030	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
15-2016-027	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
5-2016-18098	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15227	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-BB114	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
5-2016-18039	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17016	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17771	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208016	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-18092	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15230	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17790	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
20-2016-028	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
20	Nestle Waters North America Inc.	Hydrogen Fueling Units*	\$270,000
15-2016-019	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
12-2016-9B	Fresh-Link Logistics	Low NOx Replacement Truck	\$50,000
5-2016-17772	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18130	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15231	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17764	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15226	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18101	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17749	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15272	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA163	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-15285	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15274	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18084	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
5-2016-15229	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
15-2016-032	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
5-2016-18121	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208025	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
23-2016-96	Inline Distributing	Low NOx Replacement Truck	\$100,000
15-2016-023	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
5-2016-18093	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18091	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
15-2016-029	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
13-2016-208029	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-18075	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18033	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18124	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18126	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17796	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17768	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-18127	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
23-2016-125	Inline Distributing	Low NOx Replacement Truck	\$100,000
15-2016-002	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
13-2016-AA134	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
13-2016-AA162	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
13-2016-208030	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-17775	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15018	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15239	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208028	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
18-2016-003	Crossroads Equipment Lease & Finance LLC / Fleet Logic LLC dba Velocity Truck Rental & Leasing	Low NOx Replacement Truck	\$100,000
5-2016-18131	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15238	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15289	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-138986	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-18061	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17750	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15573	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208019	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
17-2016-1189	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1207	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1197	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1206	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
13-2016-BB112	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
5-2016-15236	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
20-2016-029	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-1201	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-201	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-982	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
18-2016-004	Crossroads Equipment Lease & Finance LLC / Fleet Logic LLC dba Velocity Truck Rental & Leasing	Low NOx Replacement Truck	\$100,000
5-2016-17741	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-1202	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15029	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-1193	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-692	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1196	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1203	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-735	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1180	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-215	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15015	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-153	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1198	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1208	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-176	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1229	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1188	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15022	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15580	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-1007	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1194	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
18-2016-002	Crossroads Equipment Lease & Finance LLC / Fleet Logic LLC dba Velocity Truck Rental & Leasing	Low NOx Replacement Truck	\$100,000
17-2016-734	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15299	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15025	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-174	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-152	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-738	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-722	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
20-2016-030	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-167	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
16-2016-132008	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
17-2016-718	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-730	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1247	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15288	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-736	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1190	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-657	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
20-2016-037	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-1191	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
20-2016-039	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
17-2016-171	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-739	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-179	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-161	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
10-2016-T80	Discount Heavy Haul Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-1195	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-731	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-195	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-18090	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-168	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
13-2016-208026	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
20-2016-035	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-175	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-193	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1204	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-714	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-682	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-204	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1192	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15026	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-1209	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-824	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-604	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
20-2016-033	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-1199	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-165	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-729	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-150	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15593	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-164	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1182	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
20-2016-034	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-744	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-405	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-166	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-154	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-162	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1184	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-411	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15235	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-194	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
20-2016-032	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-1186	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-155	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-719	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-723	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-733	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
17-2016-169	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-18079	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15040	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-146	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15020	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA133	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
13-2016-208027	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
17-2016-1187	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-144	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-163	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-198	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
13-2016-208024	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-18077	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-147	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-151	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
11-2016-V31	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
13-2016-AA140	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
13-2016-208013	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-15598	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-709	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-149	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
11-2016-V25	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
5-2016-15298	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208022	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
17-2016-148	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15579	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15033	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-AA132	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-15234	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17000	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15578	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15568	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
23-2016-137	Inline Distributing	Low NOx Replacement Truck	\$100,000
17-2016-026	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-17767	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15293	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15292	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131517	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-18132	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
20-2016-036	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
5-2016-15587	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208023	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-15570	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15576	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-142	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15311	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132481	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
5-2016-15574	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15571	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15567	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-141	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
16-2016-132021	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15014	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-138062	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15564	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17001	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-1200	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15012	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15577	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15572	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-138450	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15045	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15291	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15557	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15595	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
20-2016-038	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
17-2016-1248	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-1185	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
17-2016-660	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15583	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
10-2016-T81	Discount Heavy Haul Inc.	Zero Emission Replacement Truck	\$200,000
16-2016-132526	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131770	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15034	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-1183	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
5-2016-15013	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-214	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
13-2016-AA143	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-15042	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15675	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
17-2016-664	Robertsons Ready Mix LTD	Low NOx Replacement Truck	\$100,000
13-2016-208021	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
5-2016-15296	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15584	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15009	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132524	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-17015	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15035	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
11-2016-V28	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
16-2016-132587	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132497	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131812	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15585	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17755	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
16-2016-131759	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15693	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131715	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V21	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
2-2016-94	Spragues' Rock and Sand Inc	Low NOx Replacement Truck	\$100,000
5-2016-15290	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
2-2016-95	Spragues' Rock and Sand Inc	Low NOx Replacement Truck	\$100,000
5-2016-15017	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131527	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15319	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15021	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131605	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
15-2016-008	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
16-2016-132594	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15586	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-17769	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-208020	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
16-2016-132437	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15039	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131615	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132473	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138460	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132487	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15032	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15582	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-138890	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15010	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-138458	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15597	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15031	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15592	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15027	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15563	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15591	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15558	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15023	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15038	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15590	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15575	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15030	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132127	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131932	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15008	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
11-2016-V12	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
5-2016-15043	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-138958	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15300	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
5-2016-15594	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15588	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15028	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15581	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15589	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132455	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131664	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15560	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131711	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
13-2016-BB127	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
15-2016-007	CR&R Incorporated	Low NOx Replacement Truck	\$100,000
16-2016-132577	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132522	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132246	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15569	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132016	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138295	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15314	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
13-2016-BB123	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
16-2016-131598	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131571	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131681	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132193	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V29	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
13-2016-AA144	AJR Trucking Inc.	Low NOx Replacement Truck	\$100,000
23-2016-136	Inline Distributing	Low NOx Replacement Truck	\$100,000
5-2016-15561	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15317	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131910	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15555	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132441	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132581	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15312	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132372	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132218	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132492	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138034	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132074	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131787	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132510	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131994	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V22	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
16-2016-131654	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132509	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131582	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132149	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132549	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
16-2016-138057	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15566	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132588	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15315	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132267	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
23-2016-138	Inline Distributing	Low NOx Replacement Truck	\$100,000
16-2016-132402	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132153	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15309	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131775	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V20	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
5-2016-15318	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131728	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131677	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132049	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131967	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138045	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131738	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132337	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131601	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138152	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131765	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132022	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131987	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138023	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131935	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132241	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132001	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131691	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131662	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132035	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15562	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
5-2016-15553	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131952	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132545	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15313	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-131602	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
20-2016-124	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
16-2016-132276	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132040	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132567	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132349	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V26	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
16-2016-138011	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V14	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
5-2016-15559	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
16-2016-132310	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
16-2016-132426	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132564	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138026	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132615	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132065	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V30	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
16-2016-132183	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132304	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138449	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V27	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
16-2016-131960	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132485	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
20-2016-040	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
16-2016-138018	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132038	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
13-2016-BB124	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
16-2016-132174	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138455	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-139037	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131653	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131673	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131682	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138016	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131632	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132151	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132144	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132122	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132045	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131921	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138007	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138889	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138170	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131628	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132123	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138457	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132606	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132129	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132221	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132447	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132476	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
13-2016-BB126	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
16-2016-138024	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132026	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138093	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-139038	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131811	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-138052	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
16-2016-131922	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132555	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131585	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132002	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131647	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131941	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132255	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131609	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132032	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
13-2016-BB125	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
16-2016-132050	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131705	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132576	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-132614	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131616	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
16-2016-131917	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
11-2016-V19	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
16-2016-131807	United Parcel Service, Inc.	Zero Emission Replacement Truck	\$100,000
5-2016-15304	Superior Ready Mix Concrete, L.P.	Low NOx Replacement Truck	\$100,000
22-2016-412B	Classic Distributing & Beverage Group, Inc.	Low NOx Replacement Truck	\$100,000
20-2016-088	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
22-2016-402B	Classic Distributing & Beverage Group, Inc.	Low NOx Replacement Truck	\$100,000
20-2016-086	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
22-2016-418B	Classic Distributing & Beverage Group, Inc.	Low NOx Replacement Truck	\$100,000
23-2016-135	Inline Distributing	Low NOx Replacement Truck	\$100,000
13-2016-BB128	AJR Trucking Inc.	Low NOx Replacement Truck	\$50,000
20-2016-090	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
20-2016-085	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
20-2016-008	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
11-2016-V18	VinLux Transport	Hybrid Zero-Mile Replacement Truck	\$65,000
20-2016-127	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
20-2016-129	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
20-2016-007	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
20-2016-152	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
20-2016-012	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
20-2016-121	Nestle Waters North America Inc.	Zero Emission Replacement Truck	\$200,000
23-2016-152	Inline Distributing	Natural Gas Replacement Truck	\$40,000
4-2016-30	GT Carriers, Inc	Natural Gas Replacement Truck	\$65,000
23-2016-117	Inline Distributing	Natural Gas Replacement Truck	\$40,000
7-2016-157	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
15-2016-011	CR&R Incorporated	Natural Gas Replacement Truck	\$65,000
7-2016-169	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
23-2016-144	Inline Distributing	Natural Gas Replacement Truck	\$40,000
7-2016-017	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000

<b>Project ID #</b>	<b>Applicant Name</b>	<b>Project Option</b>	<b>Maximum Prop1B Award</b>
8-2016-002	Fenceworks Inc. dba Golden State Fence Co.	Natural Gas Replacement Truck	\$40,000
3-2016-99	Crown Xpress Transport	Natural Gas Replacement Truck	\$65,000
15-2016-012	CR&R Incorporated	Natural Gas Replacement Truck	\$40,000
7-2016-100	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
8-2016-188	Fenceworks Inc. dba Golden State Fence Co.	Natural Gas Replacement Truck	\$40,000
7-2016-207	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-156	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
8-2016-158	Fenceworks Inc. Dba Golden State Fence Co.	Natural Gas Replacement Truck	\$40,000
7-2016-015	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-149	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-168	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
23-2016-133	Inline Distributing	Natural Gas Replacement Truck	\$40,000
8-2016-033	Fenceworks Inc. dba Golden State Fence Co.	Natural Gas Replacement Truck	\$40,000
7-2016-174	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-172	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-034	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-160	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-165	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
8-2016-004	Fenceworks Inc. dba Golden State Fence Co.	Natural Gas Replacement Truck	\$40,000
7-2016-171	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-155	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
15-2016-014	CR&R Incorporated	Natural Gas Replacement Truck	\$65,000
7-2016-167	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
8-2016-170	Fenceworks Inc. dba Golden State Fence Co.	Natural Gas Replacement Truck	\$40,000
8-2016-217	Fenceworks Inc. dba Golden State Fence Co.	Natural Gas Replacement Truck	\$40,000
7-2016-173	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-111	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
7-2016-268	Fencecorp, Inc.	Natural Gas Replacement Truck	\$40,000
1-2016-650	Wayne Perry, Inc.	Natural Gas Replacement Truck	\$40,000
15-2016-009	CR&R Incorporated	Natural Gas Replacement Truck	\$40,000
15-2016-013	CR&R Incorporated	Natural Gas Replacement Truck	\$40,000
12-2016-8B	Fresh-Link Logistics	Hybrid Replacement Truck	\$45,000
12-2016-7B	Fresh-Link Logistics	Hybrid Replacement Truck	\$45,000
3-2016-143	Crown Xpress Transport	Natural Gas Replacement Trucks	\$65,000
<b>Total</b>			<b>\$57,645,000</b>

\*project contingent upon the replacement of three zero emission vehicles through the Program

**Table 2: Transport Refrigeration Units and Supporting Infrastructure**

<b>Project ID</b>	<b>Applicant Name</b>	<b>Project Options</b>	<b>Maximum Prop1B Award</b>
6-Plugs	D&D Wholesale Distributors Inc.	Electrical Plugs Installation (32 plugs)	\$48,000.00
6-TRU-081	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-119	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-117	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-091	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-087	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-084	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-083	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-093	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
14-Plugs	Triple B Corporation, dba Charlies Produce	Electrical Plugs Installation (62 plugs)	\$186,000.00
6-TRU-096	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-104	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-079	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-112	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-094	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-089	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-100	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
6-TRU-098	D&D Wholesale Distributors Inc.	Zero Emission TRU Replacement	\$15,911.20
<b>Total</b>			<b>\$488,579.20</b>

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 9

PROPOSAL: Issue RFP for Information Technology Review

SYNOPSIS: SCAQMD requires the services of qualified Information Technology (IT) audit professionals to perform an IT review to help determine opportunities for hardware, system and software modernization. This action is to issue an RFP for a technology review to evaluate the information technologies currently in place and those that are needed to support SCAQMD's business goals.

COMMITTEE: Administrative, November 18, 2016; Recommended for Approval

RECOMMENDED ACTION:

Approve the release of RFP #2017-09 to solicit proposals to perform Information Technology review.

Wayne Natri  
Acting Executive Officer

CJM:OSM

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**Background**

An Information Technology (IT) review is an examination of information systems (hardware and software) within an IT infrastructure. The focus of an IT review can vary depending on needs and resources. A technology review performs an assessment of the current technologies being used and the technologies that are needed to achieve business goals and objectives. During an IT review, the auditor collects and evaluates evidence of an organization's information systems, practices, and operations. This evaluation of the obtained evidence determines if changes are needed in the existing structure to meet current and future needs.

**Proposal**

It is proposed that SCAQMD solicit bids from qualified IT professionals who have received or are qualified to receive the Certified Information Systems Auditor (CISA) certification, or similar credentials to perform a technology review. This review should evaluate the IT technologies the agency currently has and that it may need to add to achieve the agency's information systems goals and objectives. Additionally, input

should include a review and evaluation of the findings, recommendations and implemented actions from the IT audit performed in 2010.

**Outreach**

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

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

**Bid Evaluation**

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

**Resource Impacts**

The total funding from the SCAQMD for this RFP will not exceed \$75,000.

**Attachment**

RFP #P2017-09 for Information Technology Review

# **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

## **REQUEST FOR PROPOSALS**

### **RFP for Information Technology Review**

P2017-09

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

### **PURPOSE**

The purpose of this Request for Proposals (RFP) is to solicit qualified firms to perform an information technology (IT) review. The purpose of this review is to evaluate the information technologies currently in place at SCAQMD and those that are needed to support SCAQMD's future business goals. Consultant will collect and evaluate evidence of SCAQMD's information systems, practices, and operations to determine if changes are needed in the existing structure to meet current and future needs. Consultant should demonstrate knowledge and experience in information technology reviews and in technological position audits with qualified IT professional staff who have received, or are qualified to receive, the Certified Information Systems Auditor (CISA) or similar credentials.

Total funding for this RFP will be a maximum of \$75,000, firm fixed price. The intent of this RFP is to produce an evaluation of current and future IT technologies that will provide a roadmap for ongoing and future IT infrastructure projects.

### **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	Funding
Section XI	Sample Contract

Attachment A - Participation in the Procurement Process

Attachment B - Certifications and Representations

**SECTION I: BACKGROUND/INFORMATION**

The SCAQMD is a regional air quality regulatory agency with jurisdiction in a four-county area of Southern California, including metropolitan Los Angeles. SCAQMD's major areas of activities include developing rules and regulations to reduce air pollution, monitoring and analyzing air quality data from stations throughout the region, reviewing permits to construct and operate for facilities which emit air pollution, and inspecting commercial and industrial facilities for compliance with SCAQMD, state, and federal rules and regulations.

SCAQMD's Information Management group is responsible for all hardware and software that comprises SCAQMD's information technology infrastructure including hardware installation and maintenance; set-up, configuration, operation, and support of all voice and data networks; development, maintenance and support of custom software applications; and configuration, maintenance and support of off-the-shelf software systems.

To ensure that all information technology systems are capable of supporting current and future information system needs, SCAQMD requires qualified professional assistance in the performance of an IT review. The most recent IT audit conducted in 2010 resulted in implementation of many of the IT audit recommendations. The requested IT review should assess the results of the 2010 audit and move forward to audit the current environment. Further, the recommendations aforementioned review may serve as input to update of Information Managements Strategic Plan.

**SECTION II: CONTACT PERSON:**

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

Ora McEwan, Information Management  
SCAQMD  
21865 Copley Drive  
Diamond Bar, CA 91765-4178  
(909) 396-2897

**SECTION III: SCHEDULE OF EVENTS**

<b>Date</b>	<b>Event</b>
December 2, 2016	RFP Released
December 14, 2016	<b>Bidder's Conference*</b>
January 10, 2017	Proposals Due to SCAQMD – <b>No Later Than 1:00 pm</b>
Jan 10 - Jan 18, 2017	Proposal Evaluations
January 19, 2017	Interviews, if required
March 3, 2017	Governing Board Approval
March 21, 2017	Anticipated Contract Execution

\*Participation in the Bidder's Conference is optional, however, additional points will be awarded for participation. Such participation would assist in notifying potential Bidders of any updates or amendments. The Bidder's Conference will be held in Room CC-6 at SCAQMD

Headquarters in Diamond Bar, California at 2:00 pm on Wednesday, December 14, 2016. Please contact Annie Genato at (909) 396-2880 by close of business on Friday, December 9, 2016 if you plan to attend.

#### **SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS**

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

#### **SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES**

##### **A. Statement of Work**

An information technology review is an examination of information systems (hardware and software) within an Information Technology (IT) infrastructure. The focus of an IT review can vary depending on needs and resources. A technological position review, evaluates the technologies currently being used and the technologies that are needed to achieve business goals and objectives. During an IT review, the provider collects and evaluates evidence of an organization's information systems, practices, and operations. This evaluation of the obtained evidence determines if changes are needed in the existing structure to meet current and future needs.

##### **Task 1. Develop Review Scope**

###### 2010 IT Audit Review

Review the findings, recommendations and subsequent implementation from the IT Audit conducted in 2010. Use the findings from the audit review to tailor the Kick-off Meeting and Work Plan vision and scope.

###### Kick-off Meeting

Meet with the senior IM management to finalize the scope, review any special concerns, schedule the on-site review dates and explain the methodology for the review. Determine the main areas of focus for the review.

###### Work Plan

Develop a written work plan detailing what is required (meetings, documentation, etc.) for conducting the review, a schedule of activities, and a schedule of deliverables.

##### **Task 2. Field Review**

Gather evidence by interviewing staff and managers, reviewing system documentation, printouts and data, observing processes, etc. This task may include the use of Computer Aided Audit Techniques (CAATs). Areas of interest that could be included in the review scope include the following:

### Computer Systems Review

Performance review of current and planned operational computer systems (including application and database servers, workstations, etc.), networks (LANS, WANS, WIFI), and voice system (in light of unified communications) that support SCAQMD's business applications.

### Application Software Review

Review of all general business application and scientific computing systems (under development, being tested or already deployed) including access control and authorizations, validations, error and exception handling, business process flows within the application software and complementary manual controls and procedures. Additionally, this task should include a review of the system development lifecycle.

### **Task 3. Analysis**

Review and analyze information gathered during the field review. Incorporate any relevant information from the 2010 IT Audit findings and recommendations

### **Task 4. Final Review and Report**

The final review and report should include the following:

- Presentation of the review findings and suggestions for corrective action (including an estimate of total cost of ownership (TOC) for each recommended action) to senior management for comment.
- Delivery of final review report incorporating views and agreements reached on all assessment issues.

The Contractor shall use strong access controls (such as encryption and multifactor authentication for electronic data plus locked cabinets or safes for hard-copy data) to protect review evidence from unauthorized access. In addition, the Contractor must include a document management schedule that provides for secure destruction of all review evidence after the specified time period.

### **Task 5. Follow-up**

Review of actions necessary to prepare for future reviews.

### **Management**

Describe management approach for completing the project on schedule and on budget. This should include a review of lead staff and their roles, reporting frequency and structure, etc.

### **B. Schedule of Deliverables**

1. Project kick-off meeting will be held within two weeks of contract execution.
2. Draft work plan will be delivered within two weeks of the kick-off meeting and finalized within two weeks after that.
3. Remaining deliverable schedule will be finalized in the work plan

**SECTION VI: REQUIRED QUALIFICATIONS**

- A. Persons or firms proposing to bid on this proposal must be qualified IT professionals experienced in performing IT reviews, and familiar with the latest information technology systems.
- B. Contractor must be certified to perform IT reviews as a Certified Information Systems Auditor (CISA) or have similar credentials.
- C. Contractor must demonstrate:
  1. An understanding of the RFP requirements
  2. Experience with IT reviews
  3. Required qualifications
- D. Proposer must submit the following:
  1. Resumes or similar statement of qualifications for all individuals proposed for this project.
  2. Summary of general qualifications for this type of project.
  3. At least three (3) recent (within the past 5 years) references from public agencies or other organizations for projects of a similar nature and size to SCAQMD's that were successfully completed, including the client's name and the name and telephone number of a contact person, a description of the project and the date work was completed. The SCAQMD reserves the right to contact any of the Contractor's previous clients at any time.

**SECTION VII: PROPOSAL SUBMITTAL REQUIREMENTS**

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

Each proposal must be submitted in three separate volumes:

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

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

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

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

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

## **VOLUME I - TECHNICAL PROPOSAL**

### **DO NOT INCLUDE ANY COST INFORMATION IN THE TECHNICAL VOLUME**

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

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

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

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

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

1. List all key personnel assigned to the project by level, name and location. Provide a resume or similar statement describing the background, qualifications and experience of the lead person and all persons assigned to the project. Substitution of project manager or lead personnel will not be permitted without prior written approval of SCAQMD.
2. Provide a spreadsheet of the labor hours proposed for each labor category at the task level.
3. Provide a statement indicating whether or not 90% of the work will be performed within the geographical boundaries of SCAQMD.
4. Provide a statement of education and training programs provided to, or required of, the staff identified for participation in the project, particularly with reference to management consulting, governmental practices and procedures, and technical matters.
5. Provide a summary of your Firm's general qualifications to meet required qualifications and fulfill statement of work, including additional Firm personnel and resources beyond those who may be assigned to the project.

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

Conflict of Interest (Section G) - Address possible conflicts of interest with other clients affected by actions performed by the Firm on behalf of SCAQMD. SCAQMD recognizes that

prospective Contractors may be performing similar projects for other clients. Include a complete list of such clients for the past three (3) years with the type of work performed and the total number of years performing such tasks for each client. Although the Proposer will not be automatically disqualified by reason of work performed for such clients, SCAQMD reserves the right to consider the nature and extent of such work in evaluating the proposal.

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

## **VOLUME II - COST PROPOSAL**

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

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

1. Detail must be provided by the following categories:
  - A. Labor – The Cost Proposal must list the fully-burdened hourly rates and the total number of hours estimated for each level of professional and administrative staff to be used to perform the tasks required by this RFP. Costs should be estimated for each of the components of the work plan.
  - B. Subcontractor Costs - List subcontractor costs and identify subcontractors by name. Itemize subcontractor charges per hour or per day.
  - C. Travel Costs - Indicate amount of travel cost and basis of estimate to include trip destination, purpose of trip, length of trip, airline fare or mileage expense, per diem costs, lodging and car rental.
  - D. Other Direct Costs -This category may include such items as postage and mailing expense, printing and reproduction costs, etc. Provide a basis of estimate for these costs.
2. It is the policy of the SCAQMD to receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services. SCAQMD will give preference, where appropriate, to vendors who certify that they will provide “most favored customer” status to the SCAQMD. To receive preference points, Proposer shall certify that SCAQMD is receiving “most favored customer” pricing in the Business Status Certifications page of Volume III, Attachment B – Certifications and Representations.

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

### **SECTION VIII: PROPOSAL SUBMISSION**

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

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

Due Date - **All proposals are due no later than 1:00 p.m., January 10, 2017, and should be directed to:**

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

Submittal - Submit four (4) complete copies of the proposal in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Proposer and the words "Request for Proposals P2017-09."

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

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

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

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

**SECTION IX: PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA**

- A. Proposals will be evaluated by a panel of three to five SCAQMD staff members familiar with the subject matter of the project. The panel shall be appointed by the Executive Officer or his designee. In addition, the evaluation panel may include such outside public sector or academic community expertise as deemed desirable by the Executive Officer. The panel will make a recommendation to the Executive Officer and/or the Governing Board of SCAQMD for final selection of a contractor and negotiation of a contract.
- B. Each member of the evaluation panel shall be accorded equal weight in his or her rating of proposals. The evaluation panel members shall evaluate the proposals according to the specified criteria and numerical weightings set forth below.

1. <u>Proposal Evaluation Criteria</u>	<u>Points</u>
Understanding the Problem	20
Technical/Management Approach	20
Contractor Qualifications	20
Previous Experience on Similar Projects	10
Attendance at the Dec. 14, 2016 Bidder's Conference	5
Cost	<u>30</u>
TOTAL	105

Additional Points

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

**The cumulative points awarded for small business, DVBE, use of small business or DVBE subcontractors, low-emission vehicle business, local business, and off-peak hours delivery business shall not exceed 15 points.**

Self-Certification for Additional Points

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

2. To receive additional points in the evaluation process for the categories of Small Business or Small Business Joint Venture, DVBE or DVBE Joint Venture or Local Business (for non-federally funded projects), the proposer must submit a self-certification or certification from the State of California Office of Small Business Certification and Resources at the time of proposal submission certifying that the proposer meets the requirements set forth in Section III. To receive points for the use of DVBE and/or Small Business subcontractors, at least 25 percent of the total contract value must be subcontracted to DVBEs and/or Small Businesses. To receive points as a Low-Emission Vehicle Business, the proposer must demonstrate to the Executive Officer, or designee, that supplies and materials delivered to SCAQMD are delivered in vehicles that operate on either clean-fuels or if powered by diesel fuel, that the vehicles have particulate traps installed. To receive points as an Off-Peak Hours Delivery Business, the proposer must submit, at proposal submission, certification of its commitment to delivering supplies and materials to SCAQMD between the hours of 10:00 a.m. and 3:00 p.m. To receive points for Most Favored Customer status, the proposer must submit, at proposal submission, certification of its commitment to provide most favored customer status to the SCAQMD. The cumulative points awarded for small business, DVBE, use of Small Business or DVBE Subcontractors, Local Business, Low-Emission Vehicle Business and Off-Peak Hour Delivery Business shall not exceed 15 points.

The Procurement Section will be responsible for monitoring compliance of suppliers awarded purchase orders based upon use of low-emission vehicles or off-peak traffic hour delivery commitments through the use of vendor logs which will identify the contractor awarded the incentive. The purchase order shall

incorporate terms which obligate the supplier to deliver materials in low-emission vehicles or deliver during off-peak traffic hours. The Receiving department will monitor those qualified supplier deliveries to ensure compliance to the purchase order requirements. Suppliers in non-compliance will be subject to a two percent of total purchase order value penalty. The Procurement Manager will adjudicate any disputes regarding either low-emission vehicle or off-peak hour deliveries.

3. For procurement of Research and Development (R & D) projects or projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, technical factors including past experience shall be weighted at 70 points and cost shall be weighted at 30 points. A proposal must receive at least 56 out of 70 points on R & D projects and projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, in order to be deemed qualified for award.
  4. The lowest cost proposal will be awarded the maximum cost points available and all other cost proposals will receive points on a prorated basis. For example if the lowest cost proposal is \$1,000 and the maximum points available are 30 points, this proposal would receive the full 30 points. If the next lowest cost proposal is \$1,100 it would receive 27 points reflecting the fact that it is 10% higher than the lowest cost (90% of 30 points = 27 points).
- C. During the selection process the evaluation panel may wish to interview some proposers for clarification purposes only. No new material will be permitted at this time. Additional information provided during the bid review process is limited to clarification by the Proposer of information presented in his/her proposal, upon request by SCAQMD.
- D. The Executive Officer or Governing Board may award the contract to a Proposer other than the Proposer receiving the highest rating in the event the Governing Board determines that another Proposer from among those technically qualified would provide the best value to SCAQMD considering cost and technical factors. The determination shall be based solely on the Evaluation Criteria contained in the Request for Proposal (RFP), on evidence provided in the proposal and on any other evidence provided during the bid review process.
- E. Selection will be made based on the above-described criteria and rating factors. The selection will be made by and is subject to Executive Officer or Governing Board approval. Proposers may be notified of the results by letter.
- F. The Governing Board has approved a Bid Protest Procedure which provides a process for a Bidder or prospective Bidder to submit a written protest to SCAQMD Procurement Manager in recognition of two types of protests: Protest Regarding Solicitation and Protest Regarding Award of a Contract. Copies of the Bid Protest Policy can be secured through a request to SCAQMD Procurement Department.
- G. The Executive Officer or Governing Board may award contracts to more than one proposer if in (his or their) sole judgment the purposes of the (contract or award) would best be served by selecting multiple proposers.

- H. If additional funds become available, the Executive Officer or Governing Board may increase the amount awarded. The Executive Officer or Governing Board may also select additional proposers for a grant or contract if additional funds become available.
- I. Disposition of Proposals – Pursuant to SCAQMD’s Procurement Policy and Procedure, SCAQMD reserves the right to reject any or all proposals. All proposals become the property of SCAQMD, and are subject to the California Public Records Act. One copy of the proposal shall be retained for SCAQMD files. Additional copies and materials will be returned only if requested and at the proposer's expense.

**SECTION X: FUNDING**

The total funding for the work contemplated by this RFP will be a maximum of \$75,000.

**SECTION XI: SAMPLE CONTRACT**

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

# ATTACHMENT A

## PARTICIPATION IN THE PROCUREMENT PROCESS

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

B. Definitions:

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

1. "Women business enterprise" (WBE) as used in this policy means a business enterprise that meets all of the following criteria:
  - a. a business that is at least 51 percent owned by one or more women, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more 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 A**

## **PARTICIPATION IN THE PROCUREMENT PROCESS**

- c. is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.
4. "Local business" as used in this policy means a company that has an ongoing business within geographical boundaries of SCAQMD at the time of bid or proposal submittal and performs 90% of the work related to the contract within the geographical boundaries of SCAQMD and satisfies the requirements of subparagraph H below.
5. "Small business" as used in this policy means a business that meets the following criteria:
  - a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
    - A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or
    - A manufacturer with 100 or fewer employees.
  - b. Manufacturer means a business that is both of the following:
    - 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
    - 2) Classified between Codes 311000 and 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.
6. "Joint ventures" as defined in this policy pertaining to certification means that one party to the joint venture is a DVBE or small business and owns at least 51 percent of the joint venture.
7. "Low-Emission Vehicle Business" as used in this policy means a company or contractor that uses low-emission vehicles in conducting deliveries to SCAQMD. Low-emission vehicles include vehicles powered by electric, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol, hydrogen and diesel retrofitted with particulate matter (PM) traps.
8. "Off-Peak Hours Delivery Business" as used in this policy means a company or contractor that commits to conducting deliveries to SCAQMD during off-peak traffic hours defined as between 10:00 a.m. and 3:00 p.m.

## ATTACHMENT A

### 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 A**

## **PARTICIPATION IN THE PROCUREMENT PROCESS**

funded in whole or in part by federal grant funds) shall be granted a preference in an amount equal to 2% of the lowest cost responsive bid. Businesses offering Most Favored Customer status shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid.

- D. Under Request for Proposals, DVBEs, DVBE joint ventures, small businesses, and small business joint ventures shall be awarded ten (10) points in the evaluation process. A non-DVBE or large business shall receive seven (7) points for subcontracting at least twenty-five (25%) of the total contract value to a DVBE and/or small business. Low-Emission Vehicle Businesses shall be awarded five (5) points in the evaluation process. On procurements which are not funded in whole or in part by federal grant funds local businesses shall receive five (5) points. Off-Peak Hours Delivery Businesses shall be awarded two (2) points in the evaluation process. Businesses offering Most Favored Customer status shall be awarded two (2) points in the evaluation process.
- E. SCAQMD will ensure that discrimination in the award and performance of contracts does not occur on the basis of race, color, sex, national origin, marital status, sexual preference, creed, ancestry, medical condition, or retaliation for having filed a discrimination complaint in the performance of SCAQMD contractual obligations.
- F. SCAQMD requires Contractor to be in compliance with all state and federal laws and regulations with respect to its employees throughout the term of any awarded contract, including state minimum wage laws and OSHA requirements.
- G. When contracts are funded in whole or in part by federal funds, and if subcontracts are to be let, the Contractor must comply with the following, evidencing a good faith effort to solicit disadvantaged businesses. Contractor shall submit a certification signed by an authorized official affirming its status as a MBE or WBE, as applicable, at the time of contract execution. SCAQMD reserves the right to request documentation demonstrating compliance with the following good faith efforts prior to contract execution.
  - 1. Ensure Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
  - 2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
  - 3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and Local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

## **ATTACHMENT A**

### **PARTICIPATION IN THE PROCUREMENT PROCESS**

4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
  5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
  6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.
- H. To the extent that any conflict exists between this policy and any requirements imposed by federal and state law relating to participation in a contract by a certified MBE/WBE/DVBE as a condition of receipt of federal or state funds, the federal or state requirements shall prevail.
- I. When contracts are not funded in whole or in part by federal grant funds, a local business preference will be awarded. For such contracts that involve the purchase of commercial off-the-shelf products, local business preference will be given to suppliers or distributors of commercial off-the-shelf products who maintain an ongoing business within the geographical boundaries of SCAQMD. However, if the subject matter of the RFP or RFQ calls for the fabrication or manufacture of custom products, only companies performing 90% of the manufacturing or fabrication effort within the geographical boundaries of SCAQMD shall be entitled to the local business preference.
- J. In compliance with federal fair share requirements set forth in 40 CFR Part 33, SCAQMD shall establish a fair share goal annually for expenditures with federal funds covered by its procurement policy.



# South Coast Air Quality Management District

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

## **Business Information Request**

Dear SCAQMD Contractor/Supplier:

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

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

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

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

Sincerely,

Michael B. O'Kelly  
Chief Administrative Officer

DH:tm

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

REV 9/16



# South Coast Air Quality Management District

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

## BUSINESS INFORMATION REQUEST

Business Name	
Division of	
Subsidiary of	
Website Address	
Type of Business <i>Check One:</i>	<input type="checkbox"/> Individual <input type="checkbox"/> DBA, Name _____, County Filed in _____ <input type="checkbox"/> Corporation, ID No. _____ <input type="checkbox"/> LLC/LLP, ID No. _____ <input type="checkbox"/> Other _____

## REMITTING ADDRESS INFORMATION

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

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

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

## BUSINESS STATUS CERTIFICATIONS

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

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

### Statements of certification:

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

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

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

Check all that apply:

- |   |  |
|---|--|
| <input type="checkbox"/> Small Business Enterprise/Small Business Joint Venture | <input type="checkbox"/> Women-owned Business Enterprise                               |
| <input type="checkbox"/> Local business   | <input type="checkbox"/> Disabled Veteran-owned Business Enterprise/DVBE Joint Venture |
| <input type="checkbox"/> Minority-owned Business Enterprise                     | <input type="checkbox"/> Most Favored Customer Pricing Certification                   |

Percent of ownership: \_\_\_\_\_ %

Name of Qualifying Owner(s): \_\_\_\_\_

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

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

\_\_\_\_\_  
*NAME*

\_\_\_\_\_  
*TITLE*

\_\_\_\_\_  
*TELEPHONE NUMBER*

\_\_\_\_\_  
*DATE*

## Definitions

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

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

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

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

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

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

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

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

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

- a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
  - **A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or**
  - A manufacturer with 100 or fewer employees.
- b. Manufacturer means a business that is both of the following:
  - 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.

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

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

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

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

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

## Request for Taxpayer Identification Number and Certification

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

Print or type See Specific Instructions on page 2.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification; check only <b>one</b> of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ <b>Note.</b> 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)	

<b>Part I Taxpayer Identification Number (TIN)</b>																																																			
Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> on page 3.																																																			
<b>Note.</b> If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="10" style="text-align: center;"><b>Social security number</b></td> </tr> <tr> <td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td> </tr> <tr> <td colspan="10" style="text-align: center;"><b>or</b></td> </tr> <tr> <td colspan="10" style="text-align: center;"><b>Employer identification number</b></td> </tr> <tr> <td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td> </tr> </table>	<b>Social security number</b>																				<b>or</b>										<b>Employer identification number</b>																			
<b>Social security number</b>																																																			
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<b>Employer identification number</b>																																																			

<b>Part II Certification</b>	
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.	
<b>Certification instructions.</b> 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.	

<b>Sign Here</b>	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](http://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 <sup>1</sup>	Generally, exempt payees 1 through 5 <sup>2</sup>
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

<sup>1</sup> See Form 1099-MISC, Miscellaneous Income, and its instructions.

<sup>2</sup> 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](http://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](http://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](http://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 <sup>1</sup>
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor <sup>2</sup>
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 <sup>1</sup>
5. Sole proprietorship or disregarded entity owned by an individual	The actual owner <sup>1</sup>
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The owner <sup>2</sup>
	The grantor <sup>1</sup>
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 <sup>1</sup>
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

<sup>1</sup> 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.

<sup>2</sup> Circle the minor's name and furnish the minor's SSN.

<sup>3</sup> 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.

<sup>4</sup> 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](mailto: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](mailto:spam@uce.gov) or contact them at [www.ftc.gov/idtheft](http://www.ftc.gov/idtheft) or 1-877-IDTHEFT (1-877-438-4338).

Visit [IRS.gov](http://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.

**2016 Withholding Exemption Certificate****590**

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

**Withholding Agent**

Name \_\_\_\_\_

**Payee**

Name \_\_\_\_\_

 SSN or ITIN  FEIN  CA Corp no.  CA SOS file no.

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

City (If you have a foreign address, see Instructions.) \_\_\_\_\_

State \_\_\_\_\_

ZIP code \_\_\_\_\_

**Exemption Reason**

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

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

 **Individuals — Certification of Residency:**

I am a resident of California and I reside at the address shown above. If I become a nonresident at any time, I will promptly notify the withholding agent. See Instructions for General Information D, Definitions.

 **Corporations:**

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

 **Partnerships or Limited Liability Companies (LLCs):**

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

 **Tax-Exempt Entities:**

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

 **Insurance Companies, Individual Retirement Arrangements (IRAs), or Qualified Pension/Profit-Sharing Plans:**

The entity is an insurance company, IRA, or a federally qualified pension or profit-sharing plan.

 **California Trusts:**

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

 **Estates — Certification of Residency of Deceased Person:**

I am the executor of the above-named person's estate or trust. The decedent was a California resident at the time of death. The estate will file a California fiduciary tax return.

 **Nonmilitary Spouse of a Military Servicemember:**

I am a nonmilitary spouse of a military servicemember and I meet the Military Spouse Residency Relief Act (MSRRA) requirements. See Instructions for General Information E, MSRRA.

**CERTIFICATE OF PAYEE:** Payee must complete and sign below.

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

Under penalties of perjury, I hereby certify that the information provided in this document is, to the best of my knowledge, true and correct. If conditions change, I will promptly notify the withholding agent.

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

Payee's signature ► \_\_\_\_\_ Date \_\_\_\_\_

# 2016 Instructions for Form 590

## Withholding Exemption Certificate

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

### General Information

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

### A Purpose

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

Form 590 does not apply to payments of backup withholding. For more information, go to [ftb.ca.gov](http://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](http://edd.ca.gov) or call 888.745.3886.

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

**The following are excluded from withholding and completing this form:**

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

### B Income Subject to Withholding

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

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

- Payments to nonresidents for services rendered in California.
- Distributions of California source income made to domestic nonresident partners, members, and S corporation shareholders and allocations of California source income made to foreign partners and members.
- Payments to nonresidents for rents if the payments are made in the course of the withholding agent's business.

- Payments to nonresidents for royalties from activities sourced to California.
- Distributions of California source income to nonresident beneficiaries from an estate or trust.
- Endorsement payments received for services performed in California.
- Prizes and winnings received by nonresidents for contests in California.

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

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

### C Who Certifies this Form

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

An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number. 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. 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 it has qualified through the CA SOS to transact intrastate business. A corporation that has not qualified to transact intrastate business (e.g., a corporation engaged exclusively in interstate commerce) will be considered as having a permanent place of business in California only if it maintains a permanent office in California that is permanently staffed by its employees.

### E Military Spouse Residency Relief Act (MSRRA)

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

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

**Domicile** is defined as the one place:

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

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

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

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

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

### Withholding Agent Instructions

Keep Form 590 for your records. The certification remains valid for 5 years or until the payee's status changes. **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](http://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](http://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](http://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

## **Certification Regarding Debarment, Suspension, and Other Responsibility Matters**

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

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgement rendered against them or commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction: violation of Federal or State antitrust statute or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

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

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Typed Name & Title of Authorized Representative

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Signature of Authorized Representative Date

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

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## 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](http://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
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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: \_\_\_\_\_

<b>DEFINITIONS</b>
<p style="text-align: center;">Parent, Subsidiary, or Otherwise Related Business Entity (2 Cal. Code of Regs., §18703.1(d).)</p> <p>(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.</p> <p>(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:</p> <ul style="list-style-type: none"> <li>(A) One business entity has a controlling ownership interest in the other business entity.</li> <li>(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:               <ul style="list-style-type: none"> <li>(i) The same person or substantially the same person owns and manages the two entities;</li> <li>(ii) There are common or commingled funds or assets;</li> <li>(iii) The business entities share the use of the same offices or employees, or otherwise share activities, resources or personnel on a regular basis;</li> <li>(iv) There is otherwise a regular and close working relationship between the entities; or</li> </ul> </li> <li>(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.</li> </ul>



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

**STEP 1: Please check all the appropriate boxes**

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

**STEP 2: Payee Information**

Last Name		First Name		Middle Initial	Title
Vendor/Contractor Business Name (if applicable)					
Address				Apartment or P.O. Box Number	
City		State	Zip	Country	
Taxpayer ID Number		Telephone Number		Email Address	

**Authorization**

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

**STEP 3:**

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

**To be Completed by your Bank**

<b>Staple Voided Check Here</b>	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 \_\_\_\_\_

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 10

**PROPOSAL:** Transfer Appropriations from General Fund Salaries and Employee Benefits Major Object to General Fund Services and Supplies Major Object

**SYNOPSIS:** This item is to transfer appropriations from the General Fund Salaries and Employee Benefits Major Object to the General Fund Services and Supplies Major Object for unbudgeted needs.

**COMMITTEE:** Administrative, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTION:**

Authorize the Executive Officer to transfer \$600,000 in appropriations from the General Fund Salaries and Employee Benefits Major Object to the General Fund Services and Supplies Major Object.

Wayne Nastri  
Acting Executive Officer

MBO:drp

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**Background**

The Board adopted the Executive Officer's FY 2016-17 SCAQMD Budget and Work Program at the May 6, 2016 meeting which included \$114.842 million in Salaries and Benefits, \$25.836 million in Services and Supplies, and \$850,000 in Capital Outlays. The FY 2016-17 Adopted Budget included an assumed vacancy rate of 8 percent; the actual year-to-date vacancy rate through October is approximately 12 percent.

Through the first four months of the fiscal year, several needs have been identified: laptops, cell phones, and training for new inspectors, as well as PCs and other items for newly hired staff and the need for development of a disaster recovery/continuity of operations plan. In addition, more community events and Hearing Board offsite activities than anticipated have occurred and additional legal, professional, and specialized consulting services have been identified.

**Proposal**

In order to meet unbudgeted needs, staff proposes that the Board authorize the Executive Officer to transfer \$600,000 in appropriations from the General Fund Salaries and Employee Benefits Major Object to the Services and Supplies Major Object as outlined below:

<b>Organizational Unit</b>	<b>Services and Supplies Appropriation Amount</b>
Clerk of the Boards	\$ 40,000
Administrative and Human Resources	\$100,000
Legal	\$ 50,000
Legislative & Public Affairs	\$300,000
Compliance & Enforcement	\$110,000
<b>Total Transfer from Salaries and Employee Benefits</b>	<b>\$600,000</b>

Actual expenditures will occur in accordance with the Board’s Procurement Policy and Procedures.

**Resource Impact**

Based on the actual vacancy rate and projected budgetary savings in Salaries and Employee Benefits, sufficient appropriation authority is available to transfer to various Organizational Units’ Services and Supplies Major Objects without increasing the total General Fund budget.

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 11

**PROPOSAL:** Amend Provisions of SCAQMD's Salary Resolution and Labor Contracts with Teamsters Local 911 and SCPEA Relating to Vacation Leave Balances

**SYNOPSIS:** Due to unforeseen, high priority operational needs, staff has been required to limit the use of vacation time this year. As a result, a number of employees will exceed the cap on vacation leave balances, and will be prohibited from accruing vacation time or will be required to forfeit vacation hours accrued. This proposal seeks approval of a one-time amendment of SCAQMD's Salary Resolution and the MOUs for represented employees, in order to suspend the limitations on vacation leave balances for 2016.

**COMMITTEE:** Administrative, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTIONS:**

1. Approve the proposed amendments to the 2015-2017 Teamsters MOU, representing the Technical-Enforcement and Office Clerical and Maintenance bargaining units, and the 2015-2017 SCPEA MOU representing the Professional bargaining unit employees. Changes to the 2015-2017 Teamsters MOU are shown in Attachment A and changes to the 2015-2017 SCPEA MOU are shown in Attachment B.
2. Adopt the Resolution in Attachment C, amending Section 41 (Time of Taking Vacations) of SCAQMD's Salary Resolution.

Wayne Natri  
Acting Executive Officer

MOK:AJO:tc

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**Background**

Section 41 of SCAQMD's Salary Resolution provides that employees are not permitted to accrue additional vacation time if the employee's vacation leave balance exceeds 360 hours by the end of the last pay period beginning in December. Vacation accrual resumes when the employee's vacation leave balance falls to 360 hours or less. Article 15, Section 6, of the SCPEA MOU, and Article 15, Section 5, of the Teamsters MOU

provide that employees are not permitted to have vacation leave balances in excess of 360 hours at the end of the last pay period beginning in December. Represented employees whose vacation balances exceed 360 hours forfeit any vacation hours above this cap.

**Proposal**

Recent, unforeseen operational needs, and the implementation of SCAQMD work plan goals, such as the Permit Backlog Reduction Action Plan presented to the Board in October, have necessitated limiting approvals for employees to take vacation time off this year. These circumstances make it difficult for employees with vacation leave balances at or near the cap, often the most knowledgeable and experienced employees, to control the effects of exceeding the limits.

This proposal seeks approval to amend SCAQMD’s Salary Resolution and the Memoranda of Understanding with the represented employees – on a one-time-only exception basis. For unrepresented employees, the Salary Resolution would be amended to allow employees whose vacation leave balances exceed 360 hours at the end of the last pay period beginning in December 2016 to continue to accrue vacation time. The 360-hour accrual maximum will be reinstated at the end of the last pay period beginning in December 2017. For represented employees, the MOUs would be amended to allow employees whose vacation leave balances are in excess of 360 hours at the end of the last pay period beginning in December 2016 to carry over and use the excess hours. The 360-hour accrual carry-over maximum will be reinstated at the end of the last pay period beginning in December 2017. This proposed action will not affect employees whose vacation balances are below 360 hours at the end of the last pay period beginning in December 2016.

Management has reached a tentative agreement with the representatives of each of the bargaining units on this amendment.

**Fiscal Impacts**

Approval of these amendments will not have a significant fiscal impact on the 2016-17 Fiscal Year budget.

**Attachments**

- Attachment A – Teamsters MOU Amendments
- Attachment B – SCPEA MOU Amendments
- Attachment C – Resolution regarding Salary Resolution Amendments

**ATTACHMENT A**

**SOUTH COAST AIR QUALITY**

**MANAGEMENT DISTRICT**

**MEMORANDUM OF UNDERSTANDING**

**TECHNICAL & ENFORCEMENT  
AND  
OFFICE CLERICAL & MAINTENANCE UNITS**

**January 1, 2015 – December 31, 2017**

Article 15 - VACATIONS, Section 5 (Time of Taking Vacations) of this MOU is amended by the following:

There is a one-time exception to the 360-hour accrual carry-over maximum: Employees whose vacation leave balances are in excess of 360 hours at the end of the last pay period beginning in December 2016 may carry over and use the excess hours and will continue to accrue vacation leave. The 360-hour accrual carry-over maximum will be reinstated at the end of the last pay period beginning in December 2017.

**ATTACHMENT B**

**SOUTH COAST AIR QUALITY**

**MANAGEMENT DISTRICT**

**MEMORANDUM OF UNDERSTANDING**

**PROFESSIONAL UNIT**

**January 1, 2015 – December 31, 2017**

Article 15 - VACATIONS, Section 6 (Time of Taking Vacations) of this MOU is amended by the following:

There is a one-time exception to the 360-hour accrual carry-over maximum: Employees whose vacation leave balances are in excess of 360 hours at the end of the last pay period beginning in December 2016 may carry over and use the excess hours and will continue to accrue vacation leave. The 360-hour accrual carry-over maximum will be reinstated at the end of the last pay period beginning in December 2017.

ATTACHMENT C

RESOLUTON NO. 16-\_\_\_\_\_

A Resolution of the South Coast Air Quality Management District Board amending SCAQMD's Salary Resolution.

WHEREAS, Section 41 (TIME OF TAKING VACATIONS) of SCAQMD's Salary Resolution provides that employees are not permitted to accrue additional vacation if the employee's vacation leave balance exceeds 360 hours by the end of the last pay period beginning in December. Vacation accrual resumes at the beginning of the pay period immediately following the pay period in which the vacation leave balance falls to 360 hours or less.

WHEREAS, in consideration of SCAQMD operational needs, the Board of South Coast Air Quality Management District desires to amend Section 41 to allow employees whose vacation balances exceed 360 hours at the end of the last pay period beginning in December 2016 to continue to accrue vacation time.

THEREFORE, BE IT RESOLVED that the Board of the South Coast Air Quality Management District, does hereby amend Section 41 of the Salary Resolution as follows:

There is a one-time exception to the 360-hour accrual maximum: Employees whose vacation leave balances exceed 360 hours at the end of the last pay period beginning in December 2016 will continue to accrue vacation time. The 360-hour accrual maximum will be reinstated at the end of the last pay period beginning in December 2017.

AYES:

NOES:

ABSENT:

DATED: \_\_\_\_\_

\_\_\_\_\_  
Denise Garzaro, Clerk of the Boards

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 12

PROPOSAL: Add and Delete Positions to Address Operational Needs

SYNOPSIS: The Acting Executive Officer is proposing to add two positions to address anticipated operational needs for 2017. In order to assist with the Board's legislative priorities, including components of the AQMP, this action would add a Legislative Assistant position and delete a Staff Assistant position in the Legislative & Public Affairs/Media division. In addition, in order to assist with the Permit Backlog Reduction Action Plan, this action would add a Program Supervisor position and delete an Air Quality Analysis & Compliance Supervisor position in the Engineering & Permitting division. This action does not require any additional appropriation of funds to the current Fiscal Year Budget.

COMMITTEE: Administrative, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTIONS:**

1. Add a Legislative Assistant position and delete a Staff Assistant position in the Legislative & Public Affairs/Media division, and
2. Add a Program Supervisor position and delete an Air Quality Analysis & Compliance Supervisor position in the Engineering & Permitting division.

Wayne Nastri  
Acting Executive Officer

WN:JW:MOK:AJO

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**Background**

The Acting Executive Officer has reviewed, in consultation with Executive Management staff, the upcoming priorities and programs for 2017, as well as the long-term needs of the organization. Accordingly, this proposal would add a position each to two divisions that will better align the staffing resources to the implementation of SCAQMD's work plan goals. In order to offset any costs, and to maintain an efficient and effective workforce, a position in each division will be deleted.

**Proposal**

This action would add a Legislative Assistant position and delete a Staff Assistant position in the Legislative & Public Affairs/Media division. Legislative staff would benefit from the addition of a Legislative Assistant that will analyze, evaluate, and coordinate recommendations on state and federal legislation which may affect SCAQMD's mission and programs, and will provide staff support to the Board's Legislative Committee. The existing Staff Assistant position is not currently filled.

This action is also to add a Program Supervisor position and delete a vacant Air Quality Analysis & Compliance Supervisor (AQACS) position in the Engineering & Permitting division. A Program Supervisor position is better suited than the AQACS position to take the lead in the implementation of the Permit Backlog Reduction Action Plan, as well as to conduct other administrative programs to address efficiency and transparency within the Engineering & Permitting division.

**Resource Impacts**

Salary for the positions to be added will be in accordance with the Board-approved job classifications. Unfunding of the deleted positions will substantially offset the costs of the added positions. Due to salary savings in the current Fiscal Year Budget, this action does not require any additional appropriation of funds.

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 13

**PROPOSAL:** Establish List of Prequalified Legal Counsel to Provide Employee and Labor Relations Legal Services

**SYNOPSIS:** On September 2, 2016, the Board approved issuance of an RFP to prequalify outside legal counsel having expertise in handling employee and labor relations matters. The evaluation of responding firms has been completed. This action is to establish a list of prequalified counsel to advise and represent SCAQMD in employee and labor relations matters.

**COMMITTEE:** Administrative, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTIONS:**

1. Approve the six law firms listed in the Attachment as prequalified to provide employee and labor relations services through December 31, 2019.
2. Authorize the Executive Officer to execute one-year contracts—with the option of two one-year extensions—with one or more of these firms, as needs arise, in a total amount not to exceed \$200,000 per fiscal year, contingent on sufficient funds being allocated in the budget for these years.

Wayne Natri  
Acting Executive Officer

KW:AJO:tc

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**Background**

Legal services provided by firms on the prequalified list may include advising and representing SCAQMD on various employee and labor relations matters, and providing expert legal advice and formal opinions with respect to employer-employee matters to assist SCAQMD in meeting its legal obligations as an employer and in achieving fair and effective relations with employees.

The current list of prequalified outside labor and employment legal counsel has expired. RFP #P2017-03 was released on September 2, 2016, to seek proposals from law firms interested in being prequalified to provide services over the next three-year period.

**Proposal**

This proposal is to establish a list, valid through December 31, 2019, of law firms that have been prequalified to provide employee and labor relations legal services for

SCAQMD. The recommended list of prequalified law firms is set forth in the Attachment. This proposal is also to authorize the Executive Officer to execute contracts (or extend an existing contract) with one or more of these firms, as needed, in a combined amount not to exceed \$200,000 per fiscal year over the term of the list.

Selection of a law firm for particular legal matters will be based on the individual firm's specific experience and expertise, as identified in its proposal, and on prior relevant experience, the needs of the particular project, and the firm's availability.

### **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 entire 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 mailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, the State of California Contracts Register website, and placed on the Internet at SCAQMD's website (<http://www.aqmd.gov>).

### **Bid Evaluation**

One hundred fifty-one copies of the RFP were mailed to law firms in California. Eighteen proposals were received by 1:00 p.m. on October 4, 2016, the deadline for submittal. An evaluation panel rated proposals according to criteria described in the RFP. The Attachment lists the firms that, based on a technical score cut-off of 56 out of 75, were deemed qualified to provide employee and labor relations legal services. While eight firms met the minimum qualifications, the six firms with the highest overall score are being recommended for inclusion on the prequalified list. These firms also received the highest technical scores in the evaluation process.

The three-member evaluation panel consisted of three SCAQMD employees — two Senior Deputy District Counsel staff and the Assistant Deputy Executive Officer of Administrative & Human Resources. Of these three panel members, one is Asian, two are Hispanic; two female, one male.

### **Resource Impacts**

An amount not to exceed \$200,000 per fiscal year for employee and labor relations legal services was included in the current budget. Funds for subsequent years will be included in subsequent budget requests.

### **Attachment**

Evaluation of Proposals for RFP #2017-03 -Prequalified Legal Counsel to Provide Employee and Labor Relations Legal Services

**ATTACHMENT**

**EVALUATION OF PROPOSALS FOR RFP #P2017-03**

**Prequalified Legal Counsel to Provide Employee  
and Labor Relations Legal Services**

<b>Rank*</b>	<b>Firm/Lead Attorney</b>	<b>Eval. Score</b>	<b>Cost Score</b>	<b>Add'l Pts</b>	<b>Total Score</b>
1	BROWN LAW GROUP, ALC	67	23	12	102
2	WILEY PRICE & RADULOVICH, LLP	70	21	10	101
3	RENNE SLOAN HOLTZMAN SAKAI	72	21	0	93
4	LIEBERT CASSIDY WHITMORE	71	18	2	91
5	FISHER & PHILLIPS LLC	75	13	0	88
6	BEST BEST & KRIEGER	68	19	0	87
	WOODRUFF, SPRADLIN & SMART	59	25	0	84
	JACKSON LEWIS	61	17	0	78

\*Firms ranked 1-6 are being recommended for the prequalified panel.

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BOARD MEETING DATE: December 2, 2016

AGENDA NO. 14

**PROPOSAL:** Amend Contract with Google for Targeted Outreach Utilizing YouTube Videos and Banner Ads

**SYNOPSIS:** In December 2015, the Board approved a one year, \$800,000 contract with Google for targeted outreach utilizing YouTube videos and banner ads to promote various SCAQMD programs. The award was based on a highly successful pilot program with Google in the fall of 2015. In April 2016, the Board approved an additional \$250,000 for targeted outreach through Google specifically for the wintertime Check Before You Burn program from November through February. Outreach through Google is targeted by using search words, ZIP codes, and other demographics, which has shown to be highly successful. This action is to amend the current contract with Google for an additional \$250,000 to continue targeted outreach for The Right to Breathe film. Funding for this effort will come from the BP/ARCO Settlement Project Fund (46).

**COMMITTEE:** No Committee Review

**RECOMMENDED ACTION:**

Authorize the Chairman to amend the contract with Google, Inc. for targeted outreach in the amount of \$250,000 from the BP/ARCO Settlement Project Fund.

Wayne Nastri  
Acting Executive Officer

## **Background**

Staff initiated a one-year outreach program with Google last December based on a highly successful pilot program conducted in the fall of 2015. The program ends this month. The targeted outreach utilized a 45-second pre-roll video. Such outreach is highly targeted by Google using search words, ZIP codes and other demographics. Similar techniques are utilized for banner ads. During the campaign, a number of programs were promoted, including the Do One Thing video, the EV Residential Charger Incentive Program, and the 2016 Lawn Mower Exchange Program. Results of the one-year outreach program show this outreach approach to be highly successful.

As of November, the Google campaign had achieved:

- More than 500 million impressions;
- More than 450,000 clicks; and
- More than 87 million views of pre-roll footage.

In addition, in April 2016 the Board approved a targeted outreach program with Google dedicated solely to the Check Before You Burn program. A 45-second pre-roll video and banner ads for the program will run from November through February 2017.

## **Proposal**

While the current Google campaign is dedicated to promoting the wintertime Check Before You Burn program, there is a desire to continue to promote SCAQMD's signature film "The Right to Breathe" with Google for an additional six months, through June 30, 2017. The additional outreach will continue to be highly targeted by using search words, ZIP codes and other demographics through a 45-second pre-roll video and banner ads.

It is recommended to amend the current contract with Google Inc. and appropriate funds in the amount of \$250,000 for targeted outreach to promote The Right to Breathe film.

## **Resource Impacts**

Sufficient funds are available from the BP/ARCO Settlement Project Fund (46).

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 15

REPORT: Legislative and Public Affairs Report

SYNOPSIS: This report highlights the October 2016 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.

Wayne Nastri  
Acting Executive Officer

DJA:MC:DM:jns

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## **BACKGROUND**

This report summarizes the activities of Legislative and Public Affairs for October 2016. 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 staff participated during October 2016. These events involve communities which suffer disproportionately from adverse air quality impacts.

#### **October 4**

- Staff met with those who attended the “Environmental Justice Community Partnership Workshop and Environmental Justice Leader Celebration” held on September 24, 2016 in Huntington Beach. Participants provided feedback on ways in which future environmental justice events can be improved.

#### October 6

- Staff met with the Center for Community Action and Environmental Justice (CCA EJ) in San Bernardino. Staff provided an update on the 2016 Air Quality Management Plan (AQMP), while answering questions. CCA EJ and SCAQMD agreed to collaborate on environmental justice efforts whenever possible.

#### October 20

- Staff organized and attended the DTSC and SCAQMD Exide Technologies Community Advisory Committee meeting. The meeting was at Huntington Park Community Center and was attended by approximately 50 individuals.

#### October 26

- Staff hosted the “Environmental Justice Community Partnership – Environmental Justice Leader Celebration” in Indio to honor environmental justice leaders in Riverside County. Approximately 40 people attended the event which included community members and leaders of environmental justice groups.

### **COMMUNITY EVENTS/PUBLIC MEETINGS**

Each year SCAQMD staff engage with thousands of residents, providing valuable information about the agency, incentive programs, and ways individuals can help reduce air pollution through events and meetings sponsored solely by SCAQMD or in partnership with others. Attendees typically receive the following information:

- Tips on reducing their exposure to smog and its health effects;
- Clean air technologies and their deployment;
- Invitations or notices of conferences, seminars, workshops and other public events;
- SCAQMD incentive programs;
- Ways to participate in SCAQMD’s rule and policy development; and
- Assistance in resolving air pollution-related problems.

SCAQMD staff attended and/or provided information and updates at the following events:

#### October 1

- Grassroots Natural Market and Kitchen Health Expo, South Pasadena.
- Rendezvous Back to Route 66 Car Show, Court Street, San Bernardino.

#### October 7

- SCAQMD, 28<sup>th</sup> Annual Clean Air Awards, Riverside Convention Center.

#### October 8

- 2<sup>nd</sup> Annual Free Health and Community Fair, Ayala Park, Bloomington.

October 14

- San Bernardino County Friends For Regional Parks Golf Tournament, Sierra Lakes Golf Course, Fontana.

October 15

- 11<sup>th</sup> Annual Taste of Soul Family Festival, Crenshaw Boulevard, Los Angeles.
- Los Angeles Unified School District, 1<sup>st</sup> Annual South Los Angeles Youth Sustainability & Empowerment Summit, West Los Angeles College, Culver City.
- Upper San Gabriel Valley Municipal Water District, 2016 Water Fest, Arcadia County Park, Arcadia.

October 17

- California Safe Schools Coalition, “Your Life is Now” Environmental Health Summit, Los Angeles.

October 20

- Exide Technologies Community Advisory Group Meeting, Banning Park, Wilmington.

October 22

- Clean Air Wilmington, Clean Air Health and Environmental Health Fair, Banning Park.

October 27

- Southern California Energy Water + Green Summit, Palm Springs.

**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.

October 11

- Staff gave a presentation on clean alternative fuel vehicles, cap and trade funding opportunities, and electric vehicle charging, to 20 representatives from the cities of Upland, La Verne, Montclair, Claremont, Fontana, and Rancho Cucamonga at the City of Rancho Cucamonga Joint Powers Authority (JPA) Meeting, held at Central Regional Park.

October 20

- Staff gave an overview presentation on SCAQMD, air quality, and clean alternative fuel vehicles to a class of 30 students at Chapman University in Orange.

October 21

- Thirty-five engineering students from California State Polytechnic University, Pomona, visited SCAQMD's Diamond Bar Headquarters where staff provided them with an overview presentation on SCAQMD, air quality, and clean alternative fuel vehicles.
- Staff provided 15 representatives from FCC Group International (USA), which provides training services and continuing education for Chinese delegations, with an overview presentation on SCAQMD, air quality, a tour of the laboratory, and displayed clean alternative fuel vehicles.

October 26

- Staff provided an overview on SCAQMD, air quality, and clean alternative fuel vehicles to 15 members at the Rotary Club of La Mirada.

**COMMUNICATION CENTER STATISTICS**

The Communication Center handles calls on SCAQMD's main line, 1-800-CUT-SMOG<sup>®</sup> line, the Spanish line, and after-hours calls to each of those lines. Total calls received in the month of October were:

Calls to SCAQMD's Main Line and 1-800-CUT-SMOG <sup>®</sup> Line	3,845
Calls to SCAQMD's Spanish-language Line	<u>37</u>
Total Calls	3,882

**PUBLIC INFORMATION CENTER STATISTICS**

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

Calls Received by PIC Staff	132
Calls to Automated System	<u>676</u>
Total Calls	808
Visitor Transactions	201
E-Mail Advisories Sent	36,785

**BUSINESS ASSISTANCE**

SCAQMD notifies local businesses of proposed regulations so they can participate in the agency’s rule development process. SCAQMD also works with other agencies and governments to identify efficient, cost-effective ways to reduce air pollution and shares that information broadly. Staff provides personalized assistance to small businesses both over the telephone and via on-site consultation. The information is summarized below:

- Provided permit application assistance to 184 companies
- Provided assistance in filing one variance request
- Conducted six free on-site consultations
- Issued 20 clearance letters

**Types of businesses assisted**

Auto Body Shops	Dry Cleaners	Furniture Refinishing Facilities
Engineering Firm	Gas Stations	Auto Repair Centers
Construction Firm	Restaurants	Printing Facilities
Architecture Firm	Breweries	Manufacturing Facilities
		Plating Facilities

**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	Indio	Pasadena
Arcadia	Irvine	Pomona
Azusa	Irwindale	Rancho Cucamonga
Baldwin Park	Jurupa Valley	Riverside
Beaumont	La Puente	Rosemead
Buena Park	La Verne	San Bernardino
Calimesa	Laguna Hills	San Dimas
Claremont	Laguna Woods	San Gabriel
Covina	Lawndale	San Marino
Costa Mesa	La Cañada Flintridge	Sierra Madre
Corona	Long Beach	South El Monte
Commerce	Los Angeles	South Pasadena
Diamond Bar	Lynwood	Temple City
Duarte	Monrovia	Torrance
El Monte	Montclair	Tustin
Fontana	Monterey Park	Upland
Glendora	Moreno Valley	Walnut
Huntington Beach	Norco	West Covina
Huntington Park	Ontario	

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

- U.S. Senator Diane Feinstein (CA)
- U.S. Congressman Roybal-Allard (CA)
- U.S. Congressman Pete Aguilar
- U.S. Congressman Xavier Becerra (CA)
- U.S. Congressman Ted Lieu (CA)
- U.S. Congresswoman Grace Napolitano (CA)
- U.S. Congresswoman Judy Chu (CA)
- U.S. Congressman Ed Royce (CA)
- U.S. Congressman Raul Ruiz (CA)
- U.S. Congresswoman Maxine Waters (CA)
- State Senator Ben Allen
- State Senator Isadore Hall
- State Senator Bob Huff
- Senator Ricardo Lara
- State Senator Carol Liu
- State Senator Richard Roth
- State Senator Jeff Stone
- Assembly Member Autumn Burke
- Assembly Member Ed Chau
- Assembly Member Cristina Garcia
- Assembly Member Eduardo Garcia
- Assembly Member Mike Gipson
- Assembly Member David Hadley
- Assembly Member Chris Holden
- Assembly Member Eric Linder
- Assembly Member Jose Medina
- Assembly Member Miguel Santiago

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

ACE Construction Authority, San Gabriel Valley  
Arcadia Chamber of Commerce  
Arcadia Association of Realtors  
Azusa Chamber of Commerce  
Bear Valley California Chamber of Commerce  
Building Resilience, Los Angeles  
Caltrans, District 8, San Bernardino  
Chino Valley Chamber of Commerce  
Coalition for Clean Air, Los Angeles  
Coachella Valley Associated Governments  
Coachella Valley Clean Cities Coalition  
Desert Valley Builders Association  
Desert Recreation District, Coachella Valley  
Fair Housing Council of Riverside County  
Gardena Chamber of Commerce  
Gateway Cities Council of Governments  
Greater Coachella Valley Chamber of Commerce  
Hermosa Beach Chamber  
Inland Action Group, Inland Empire  
Jurupa Area Recreation and Park District  
Long Beach Chamber of Commerce  
Metrolink, Los Angeles

Morongo Band of Mission Indians  
Orange County Council of Governments  
Ontario International Airport  
Redlands Chamber of Commerce  
Redondo Beach Chamber of Commerce  
Riverside County Emergency Management Division  
Riverside Transit Agency (RTA)  
San Bernardino Associated Governments  
San Gabriel Valley Council of Governments  
San Gabriel Valley Economic Partnership  
San Gabriel Municipal Water District  
South Bay Cities Council of Governments  
South Bay Business Environmental Coalition  
South Pasadena Chamber of Commerce  
South Orange County Economic Alliance  
Southern California Gas Company  
Southern California Edison  
Sunline Transit Agency  
U.S. Green Building Council, Los Angeles Chapter  
Western Riverside County of Governments  
- Clean Cities Coalition  
Western Riverside County Transportation NOW (RTA)  
- Greater Riverside Chapter  
- Northwest Chapter  
- San Gorgonio Pass Area Chapter  
Yucaipa Chamber of Commerce

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

American Lung Association in California, Inland Empire, Los Angeles, Orange County  
American Civil Liberties Union  
Asian Pacific Islander Obesity Prevention Alliance  
Brotherhood Crusade, Los Angeles  
Asian Americans, Advancing Justice, Los Angeles  
California Communities Against Toxics  
California Safe Schools Coalition  
California State University, San Marcos  
California State University, San Bernardino  
Cesar E. Chavez Learning Academies, San Fernando  
Center on Race, Poverty & the Environment (CRPE) Bike, San Gabriel Valley  
Charter High School, Los Angeles  
Chapman University, Orange

Citizens for Safe Community, Los Angeles County  
Citizens United to Save South Pasadena  
Corona-Norco Unified School District  
EarthJustice, Los Angeles  
Environmental Priorities Network, South Bay  
Fair Housing Counsel of Riverside County  
Healthy Jurupa Valley  
Healthy African American Families, Los Angeles  
Inland Empire Health Plan, Rancho Cucamonga  
Imperial Irrigation District  
Kaiser Permanente, Yorba Linda  
La Mirada Rotary Club  
League of Women Voters, West San Gabriel Valley  
Pasadena Sierra Club  
Pacoima Beautiful Organization  
Riverside County Health Coalition  
Rialto Health Communities Group  
Reach Out, Inland Valley  
Temescal Municipal Advisory Committee  
Women's Federation for World Peace, USA  
Women in South Pasadena for Political Action

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BOARD MEETING DATE: December 2, 2016

AGENDA NO. 16

REPORT: Hearing Board Report

SYNOPSIS: This reports the actions taken by the Hearing Board during the period of October 1 through October 31, 2016.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:  
Receive and file this report.

Edward Camarena  
Chairman of Hearing Board

DG

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Two summaries are attached: **Rules From Which Variances and Orders for Abatement Were Requested in 2016 and October 2016 Hearing Board Cases.**

The total number of appeals filed during the period October 1 to October 31, 2016 is 0; and total number of appeals filed during the period of January 1 to October 31, 2016 is 3.

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
<b># of HB Actions Involving Rules</b>														
109														0
109(c)														0
109(c)(1)														0
201														0
201.1														0
202														0
202(a)						1	2	1	1					5
202(b)														0
202(c)		1												1
203				1			1							2
203(a)			1				1	1		1	1			5
203(b)		4	3	4	5	8	5	2	4	4	2			41
204														0
208														0
218(c)(1)(B)(i)														0
218.1														0
218.1(b)(4)(C)														0
218(b)(2)														0
218(c)(1)(A)														0
218(d)(1)(A)														0
218(d)(1)(B)														0
219														0
219(s)(2)														0
221(b)			1											1
221(c)														0
221(d)			1											1
222														0
222(d)(1)(C)														0
222(e)(1)														0
401														0
401(b)														0
401(b)(1)							1			1	1			3
401(b)(1)(A)					1									1
401(b)(1)(B)									1	1				2
402		1	1		2	1	1		1	1				8
403														0
403(d)(1)														0
403(d)(1)(A)														0
404														0
404(a)					1									1
405														0
405(a)					1									1
405(b)														0
405(c)														0
407					1									1
407(a)(1)														0

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
409														0
410					1									1
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														0
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)														0
461(c)(2)(A)														0
461(c)(2)(B)														0
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			1	1						3
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 Orders for Abatement were Requested in 2016														
	2016	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)		1		3	1	1		1						7
461(e)(6)(d)							1							1
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 Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
464(b)(2)								1						1
464(b)(3)					1			1						2
468														0
468(a)														0
468(b)														0
1102														0
1102(c)(2)														0
1102(e)(1)														0
1102(f)(1)														0
1105.1														0
1105.1(d)(1)														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	1	1							4
1110.2(c)(14)														0
1110.2(d)														0
1110.2(d)(1)(A)														0
1110.2(d)(1)(B)					1									1
1110.2(d)(1)(B), Table II						1		1	1					3
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

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1118(d)(12)														0
1118(e)														0
1118(f)(1)(C)														0
1118(g)(1)			1											1
1118(g)(3)														0
1118(g)(5)			1											1
1118(g)(5)(A)														0
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
1123										1				1
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

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1130(c)(1)														0
1130(c)(4)														0
1131														0
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														0
1146(c)(1)(A)														0
1146(c)(1)(G)										1				1
1146(c)(1)(I)														0
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

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1146.2(c)(1)														0
1146.2(c)(4)														0
1146.2(c)(5)														0
1146.2(e)														0
1147								1		1				2
1147(c)(1)														0
1147(c)(10)									1					1
1147(c)(14)(A)														0
1147(c)(14)(B)														0
1150.1(d)(1)(C)(i)														0
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

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1158(d)(7)(A)(ii)														0
1158(d)(10)														0
1164(c)(1)(B)														0
1164(c)(2)														0
1166(c)(2)														0
1166(c)(2)(F)														0
1166, Part 12														0
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)(1)		1	1		1									3
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
1176(e)(2)						1			1					2
1176(e)(2)(A)														0
1176(e)(2)(A)(i)														0
1176(e)(2)(B)(v)														0
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

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1178(d)(3)(D)														0
1178(d)(3)(E)														0
1178(d)(4)(A)(i)														0
1178(g)														0
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
1402(e)(3)						1								1
1407(d)														0
1407(d)(1)														0
1407(d)(2)														0
1407(d)(5)														0
1407(f)(1)														0
1415(d)(3)														0
1418(d)(2)(A)														0
1420(d)(1)														0
1420.1(d)			1											1
1420.1(n)(2)(D)						1								1
1420.1(n)(2)(E)						1								1
1420.1(k)(13)(B)														0
1420.2(e)(1)(A)		1												1
1420.2(f)(1)		1												1
1420.2(f)(3)		1												1
1420.2(j)(2)		1												1
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

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
1469(c)(11)(A)														0
1469(c)(13)(ii)														0
1469(d)(5)														0
1469(e)(1)														0
1469(e)(7)						1	1							2
1469(g)(2)														0
1469(h)														0
1469(i)														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)														0
1470(c)(3)(C)(iii)								1						1
1470(c)(4)														0
1470(c)(4)(B)				1			1							2
1470(c)(5)														0
1470(d)(2)(B)														0
1470(e)(2)(A)														0
2004(c)(1)														0
2004(c)(1)(C)														0
2004(f)(1)		2	2		5	4	2	3	3	2	2			25
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														0
2011(c)(2)						1								1
2011(c)(2)(A)					2									2
2011(c)(2)(B)														0
2011(c)(3)(A)					2									2
2011(e)(1)					2									2
2011(f)(3)														0
2011(g)														0
2011(g)(1)														0
2011(k)														0

Rules from which Variances and Orders for Abatement were Requested in 2016														
	2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
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														0
and Appen. A, Chap. 2, Section C.2.a, c & d														0
2011, Attachment C, Section B, Paragraph 2						1								1
2012 Chapter 2														0
2012 Attach. C, B.2.a														0
2012 Appen. A, Attach. C, Section B.2.														0
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)														0
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														0
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			2									3
2012(c)(2)														0
2012(c)(3)														0
2012(c)(3)(A)					2									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)														0
2012(g)(1)		1			2									3
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

Rules from which Variances and Orders for Abatement were Requested in 2016													
2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
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, 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													0
3002													0
3002(c)													0
3002(c)(1)		2	3	1	4	5	2	3	2	3	2		27
3002(c)(2)													0
3004													0
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		1	1	1	1	1	1			7
H&S 41701					1		1	1	2	1			6
H&S 93115.6(c)(2)(C)(1)													0
H&S 42303													0
Title 13 Code of Regulations §2452													0

## Report of October 2016 Hearing Board Cases

Case Name and Case No. (SCAQMD Attorney)	Rules	Reason for Petition	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
1. Los Angeles Department of Water and Power Case No. 1263-75 (N. Feldman)	203(b) 2004(f)(1) 3002(c)(1)	Petitioner seeks to conduct weekly readiness testing of power generating equipment using diesel fuel.	Not Opposed/Granted	RV granted commencing 10/11/16 and continuing through 5/31/17 or until the District issued revised permits, whichever occurs first.	NOx: 41.51 lbs/day PM: 2.06 lbs/day CO: 0.47 lbs/day VOC: 2.18 lbs/day SOx: 0.66 lbs/day
2. SCAQMD v. SMC Grease Specialist, Inc. Case No. 6062-1 (N. Sanchez)	203(a)	Petitioner operating two diesel ICEs without permit to operate.	Not Stipulated/Issued	O/A issued commencing 10/13/16 and continuing through 11/30/17. The Hearing Board shall retain jurisdiction over this matter until 11/30/17.	N/A
3. Torrance Refining Company LLC Case No. 6060-4 (K. Manwaring)	203(b) 401(b)(1) 2004(f)(1) 3002(c)(1) H&S Code§41701	Unanticipated power outage resulted in shutdown of the FCCU and associated air pollution control equipment. Excess emissions are expected on restart.	No Position/Granted	Ex Parte EV and AOC granted commencing 10/12/16 and ending 10/13/16 when an EV and AOC hearing can be heard.	NOx: 61.81 lbs/hr Opacity: Up to 45%

### Acronyms

AOC: Alternative Operating Conditions  
 CEMS: Continuous Emissions Monitoring System  
 CO: Carbon Monoxide  
 EV: Emergency Variance  
 FCCU: Fluid Catalytic Cracking Unit  
 FCD: Final Compliance Date  
 H&S: Health and Safety  
 ICE: Internal Combustion Engine  
 LFG: Landfill Gas  
 MFCD/EXT: Modification of a Final Compliance Date and Extension of a Variance  
 Mod. O/A: Modification of an Order for Abatement  
 NOx: Oxides of Nitrogen  
 N/A: Not Applicable  
 O/A: Order for Abatement  
 PM: Particulate Matter  
 RV: Regular Variance  
 SV: Short Variance  
 SOx: Oxides of Sulfur

VOC: Volatile Organic Compounds

[↑ Back to Agenda](#)

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 17

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS: This reports the monthly penalties from October 1 through October 31, 2016, and legal actions filed by the General Counsel's Office from October 1 through October 31, 2016. An Index of District Rules is attached with the penalty report.

COMMITTEE: Stationary Source, November 18, 2016, Reviewed

RECOMMENDED ACTION:  
Receive and file this report.

Kurt R. Wiese  
General Counsel

KRW:lc

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Violations

Civil Actions Filed

1	MTB1 GROUP LLC Los Angeles County Superior Court Case Number: EC065818; Filed: 10.25.15 (TRB) P61063 R. 1403 - Asbestos Emissions from Demolition/Renovation Activities
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1 Case

1 Violation

**Attachments**

October 2016 Penalty Report  
Index of District Rules and Regulations

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

**October 2016 Settlement Penalty Report**

**Total Penalties**

<b>Civil Settlements:</b>	<b>\$134,650.00</b>
<b>MSPAP Settlements:</b>	<b>\$29,675.00</b>
<b>Hearing Board Settlements:</b>	<b>\$38,000.00</b>
<b>Total Cash Settlements:</b>	<b>\$203,325.00</b>
<b>Total SEP Value:</b>	<b>\$0.00</b>
<b>Fiscal Year through 10 / 2016 Cash Total:</b>	<b>\$676,961.20</b>
<b>Fiscal Year through 10 / 2016 SEP Value Only</b>	<b>\$3,000.00</b>

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
<b>CIVIL SETTLEMENTS:</b>						
181907	ADONIS FUEL STOP Small Claims	203 (a)	10/6/2016	PH	P64317	\$350.00
7437	ALLOYS CLEANING INC	203 (a)	10/5/2016	TRB	P61221	\$112,000.00
177158	ARCADIA OIL, INC.	203 (a), 203 (b), 461 (c) 461 (e) (2) 41954, 41960.2	10/12/2016	NSF	P64281	\$500.00
110577	ARMORCAST PRODUCTS COMPANY	3003 3002(c)(1) 3002(c)(1) 3002	10/5/2016	KCM	P57470 P57474 P57478 P61304	\$7,300.00
165625	NORTHMARQ	1146.1	10/19/2016	NSF	P61562	\$2,000.00
83623	PACIFIC ALLIANCE MEDICAL CENTER	203 (a)	10/6/2016	NSF	P64120	\$1,000.00
172593	TERVITA (US OPERATIONS) LLC	203, 430, 3002	10/13/2016	NSF	P63250	\$1,500.00
176463	TIERRA VERDE INDUSTRIES	203(a)	10/11/2016	NAS	P44888	\$10,000.00

**TOTAL CIVIL SETTLEMENTS: \$134,650.00**

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
<b>MSPAP SETTLEMENTS:</b>						
161216	315 SOUTH BEVERLY DRIVE, LLC	1146.2	10/13/2016	GV	P62903	\$1,600.00
20741	AL ASHER & SONS INC.	461	10/13/2016	PH3	P64112	\$1,210.00
119098	CITY OF NEWPORT BCH CITY HALL, CITY ATTY	203	10/3/2016	TF	P63064	\$400.00
168022	FOREVER 21 INC.	203 (b), 1470	10/13/2016	GC	P64113	\$1,200.00
143217	GBS ENTERPRISE INC.	461(c)(2)(B) 461(E)(2)(A)	10/3/2016	TF	P36741	\$1,000.00
178343	GRAND PETROLEUM INC.	203 (b), 461 (c)	10/17/2016	GC	P63117	\$400.00
127627	HOSPITALITY WOOD PRODUCTS, INC.	109	10/17/2016	GC	P63506	\$600.00
25130	LA CO. INTERNAL SERVICES DEPT.	1415	10/3/2016	TF	P64006	\$1,100.00
178583	LEFFINGWELL AUTO SERVICE, LLC	461 (e) (2)	10/3/2016	TF	P64652	\$800.00
141785	MAPLE PLAZA, LTD.	1146.2	10/17/2016	TF	P62904	\$375.00
177673	PACIFIC COATINGS	203 (a)	10/25/2016	TF	P59517	\$1,100.00
171326	PHILLIPS 66 PIPELINE LLC	462	10/3/2016	GV	P59385	\$1,000.00
181657	PREMIER DESIGN & BUILD GROUP	403	10/3/2016	TF	P59534	\$1,650.00
60429	SAM GILBERT & ASSOCIATES	1146.2	10/3/2016	GV	P62907	\$1,700.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
8144	SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT	461 (e) (2)	10/4/2016	GV	P61571	\$850.00
172695	SPYB, INC. DBA SERVPRO OF YORBA LINDA	1403	10/3/2016	GV	P64511	\$1,600.00
143648	SUNLAND CHEVRON	461(e)(2)(C)	10/4/2016	JS	P64288	\$390.00
139811	SUNNYSIDE 76 CAR CARE CENTER	461(E)(2)(A)	10/13/2016	GV	P63030	\$600.00
165596	TEMPLE PETROLEUM INC	461 (c), 461(c)(2)(B), 41954 41960.2	10/4/2016	GV	P61994	\$500.00
137061	TMR ENVIRONMENTAL INC.	461 (e) (3)	10/4/2016	GV	P63028	\$550.00
113234	TORRANCE CAR WASH & GASOLINE SERVICE	203 (b) 203 (b)	10/3/2016	GV	P61698 P64311	\$2,800.00
163836	TUSTIN 76	461, 461(E)(2)(A)	10/13/2016	GV	P63034	\$1,000.00
52906	TUSTIN DODGE	461(c), 41960.2	10/4/2016	GV	P63603	\$1,400.00
152867	TVC CLEANERS, RC EXPRESS DRY CLEANING	203 (b)	10/3/2016	GV	P60869	\$400.00
108958	UPLAND HILLS COUNTRY CLUB	203 (a), 461(c)(1)(B)	10/3/2016	GV	P63906	\$4,800.00
175965	VASIL CORP.	461(c)(2)(B), 461 (c), 41960.2	10/3/2016	GV	P64286	\$650.00

**TOTAL MSPAP SETTLEMENTS: 29,675.00**

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
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**HEARING BOARD SETTLEMENTS:**

11818	<p>HIXSON METAL FINISHING  Hearing Board Case 5483-3  If compliance is not achieved by the September 2016 deadline set forth in the O/A, additional civil penalties for the violation shall be paid in the amount agreed in the settlement agreement. For the month of August \$500/day x 31 days.</p>	402, 1402		10/11/2016	NSF	\$15,500.00
11818	<p>HIXSON METAL FINISHING  If compliance is not achieved by the September 2016 deadline set forth in the O/A, additional civil penalties for the violation shall be paid in the amount agreed in the settlement agreement. For the month of September, \$750/day x 30 days.</p>	402, 1402		10/25/2016	NSF	\$22,500.00

**TOTAL HEARING BOARD SETTLEMENTS: \$38,000.00**

## **DISTRICT RULES AND REGULATIONS INDEX FOR OCTOBER 2016 PENALTY REPORTS**

### **REGULATION I - GENERAL PROVISIONS**

Rule 109      Recordkeeping for Volatile Organic Compound Emissions (*Amended 8/18/00*)

### **REGULATION II – PERMITS**

Rule 203      Permit to Operate (*Amended 1/5/90*)

### **REGULATION IV - PROHIBITIONS**

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 430      Breakdown Provisions (*Amended 7/12/96*)

Rule 461      Gasoline Transfer and Dispensing (*Amended 6/15/01*)

Rule 462      Organic Liquid Loading (*Amended 5/14/99*)

### **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

Rule 1146.2    Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers (*Adopted 1/9/98*)

Rule 1157      PM10 Emission Reductions From Aggregate And Related Operations

Rule 1173      Fugitive Emissions of Volatile Organic Compounds (*Amended 5/13/94*)

### **REGULATION XIV – TOXICS**

Rule 1402      Control of Toxic Air Contaminants from Existing Sources (*Amended 3/17/00*)

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 XXX - TITLE V PERMITS**

Rule 3002     Requirements (*Amended 11/14/97*)  
Rule 3003     Applications

**CALIFORNIA HEALTH AND SAFETY CODE § 41700**

41954            Compliance for Control of Gasoline Vapor Emissions  
41960.2         Gasoline Vapor Recovery

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 18

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 October 1, 2016 and October 31, 2016, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: Mobile Source, November 18, 2016, Reviewed

RECOMMENDED ACTION:  
Receive and file.

Wayne Natri  
Acting Executive Officer

PF:SN:JW:MK:AK

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**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 between October 1, 2016 and October 31, 2016 is included in Attachment A. A list of active projects from previous reporting periods for which SCAQMD staff is continuing to evaluate or has prepared comments is included in Attachment B. A total of 79 CEQA documents were received during this reporting period and 23 comment letters were sent. Notable projects in this report are: Sycamore Canyon Business Park.

The Intergovernmental Review function, which consists of reviewing and commenting on the adequacy of the air quality analysis in CEQA documents prepared by other lead agencies, is consistent with the Board's 1997 Environmental Justice Guiding Principles and Environmental Justice Initiative #4. Furthermore, as required by the Environmental Justice Program Enhancements for FY 2002-03 approved by the Board in October 2002, each of the attachments notes those proposed projects where the SCAQMD has been contacted regarding potential air quality-related environmental justice concerns. The SCAQMD has established an internal central contact to receive information on projects with potential air quality-related environmental justice concerns. The public may

contact the SCAQMD about projects of concern by the following means: in writing via fax, email, or standard letters; through telephone communication; as part of oral comments at SCAQMD meetings or other meetings where SCAQMD staff is present; or by submitting newspaper articles. The attachments also identify for each project the dates of the public comment period and the public hearing date, if applicable, as reported at the time the CEQA document is received by the SCAQMD. Interested parties should rely on the lead agencies themselves for definitive information regarding public comment periods and hearings as these dates are occasionally modified by the lead agency.

At the January 6, 2006 Board meeting, the Board approved the Workplan for the Chairman's Clean Port Initiatives. One action item of the Chairman's Initiatives was to prepare a monthly report describing CEQA documents for projects related to goods movement and to make full use of the process to ensure the air quality impacts of such projects are thoroughly mitigated. In response to describing goods movement, CEQA documents (Attachments A and B) are organized to group projects of interest into the following categories: goods movement projects; schools; landfills and wastewater projects; airports; and general land use projects, etc. In response to the mitigation component, guidance information on mitigation measures were compiled into a series of tables relative to: off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases. These mitigation measure tables are on the CEQA webpages portion of the SCAQMD's website. 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 October 1, 2016 through October 31, 2016, the SCAQMD received 79 CEQA documents. Of the total of 87 documents\* listed in Attachments A and B:

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

\* These statistics are from October 1, 2016 to October 31, 2016 and may not include the most recent “Comment Status” updates in Attachments A and B.

Copies of all comment letters sent to lead agencies can be found on the SCAQMD’s CEQA webpage at the following internet address:  
<http://www.aqmd.gov/home/regulations/ceqa/commenting-agency>.

**SCAQMD Lead Agency Projects (Attachment C)** – Pursuant to CEQA, the SCAQMD periodically acts as lead agency for stationary source permit projects. Under CEQA, the lead agency is responsible for determining the type of CEQA document to be prepared if the proposal is considered to be a “project” as defined by CEQA. For example, an Environmental Impact Report (EIR) is prepared when the SCAQMD, as lead agency, finds substantial evidence that the proposed project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if the SCAQMD determines that the proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are written statements describing the reasons why proposed projects will not have a significant adverse effect on the environment and, therefore, do not require the preparation of an EIR.

Attachment C to this report summarizes the active projects for which the SCAQMD is lead agency and is currently preparing or has prepared environmental documentation. As noted in Attachment C, the SCAQMD continued working on the CEQA documents for three active projects during October.

### **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**  
**OCTOBER 01, 2016 TO OCTOBER 31, 2016**

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<b>Warehouse &amp; Distribution Centers</b> <b>LAC161021-01</b> Sycamore Canyon Business Park Buildings 1 and 2	The proposed project consists of grading, construction, and operation of approximately 1.4-million square feet of light industrial office and warehouse uses contained within two buildings. The project site is located west of Sycamore Canyon Boulevard and Lance Drive. Reference RVC160811-02 and RVC150818-05  Comment Period: N/A Public Hearing: 11/3/2016	Notice of a Public Hearing	City of Riverside	Document reviewed - No comments sent
<b>Warehouse &amp; Distribution Centers</b> <b>RVC161004-10</b> Dendy Parkway Distribution Building	The proposed project consists of the construction of a 151,180-square-foot distribution center. The project is located at the northwest corner of Winchester Road and Dendy Parkway. The project comment period has been extended. Reference RVC160830-14  Comment Period: 8/28/2016 - 10/10/2016 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Temecula	Document reviewed - No comments sent
<b>Warehouse &amp; Distribution Centers</b> <b>RVC161006-06</b> Agua Mansa Commerce Center - MA16170 (GPA16003, CZ16008, SP16002, and DA16002)	The proposed project consists of a specific plan for the Agua Mansa Commerce Park on approximately 277 acres of land which consists of 3.6 million square-feet of speculative buildings, which may include warehouse distribution uses, commercial service at the corner of Rubidoux and El Rivino, and 67 acres of recreation area dedicated to City for public use. The project is located at 1500 Rubidoux Boulevard and El Rivino Road.  <a href="http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2016/october/PCma16170aguamansa.pdf">http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2016/october/PCma16170aguamansa.pdf</a>  Comment Period: 10/3/2016 - 10/24/2016 Public Hearing: N/A	Initial Project Consultation	City of Jurupa Valley	SCAQMD staff commented on 10/11/2016
<b>Airports</b> <b>ALL161004-02</b> FAA Southern California Optimization of Airspace and Procedures in the Metroplex (SoCal Metroplex)	The project consists of publishing and implementing arrival and departure instrument procedures that employ Performance-Based Navigation, such as Area Navigation and Required Navigation-Performance. This document consists of the lead agency's final decision by its signing of the Finding of No Significant Impact on August 31, 2016. Reference ALL160901-02, ALL150812-01 and ALL150610-01  Comment Period: N/A Public Hearing: 10/25/2016	Finding of No Significant Impact	United States Federal Aviation Administration	Document reviewed - No comments sent

\*Sorted by Land Use Type (in order of land uses most commonly associated with air quality impacts), followed by County, then date received.

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

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



**ATTACHMENT A  
INCOMING CEQA DOCUMENTS LOG  
OCTOBER 01, 2016 TO OCTOBER 31, 2016**

<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Waste and Water-related</i> <b>LAC161025-04</b> Southern California Gas Company, E. Olympic Boulevard Facility (EPA ID: CAD91142217)	The proposed project consists of renewal of the facility's Resource Conservation and Recovery Act permit to store hazardous waste generated from both on-site and off-site SoCal Gas activities. The project is located at 2424 E. Olympic Boulevard.  Comment Period: N/A Public Hearing: N/A	Public Notice	Department of Toxic Substances Control	Document reviewed - No comments sent
<i>Waste and Water-related</i> <b>LAC161025-05</b> Atlas Precious Metals, Inc.	The proposed project consists of a permit renewal to continue the storage and treatment of hazardous waste. The project is located at 640 South Hill Street, Los Angeles.  Comment Period: N/A Public Hearing: N/A	Public Notice	Department of Toxic Substances Control	Document reviewed - No comments sent
<i>Waste and Water-related</i> <b>ORC161004-12</b> East Newport Mesa Groundwater Investigation Program	The proposed project consists of the installation of four monitoring wells at three locations in the cities of Costa Mesa and Irvine. Data from these monitoring wells would help characterize the hydrogeology and identify possible mergence zones between the Shallow and Principal aquifer. The project is located in the southwestern part of the Orange County Groundwater Basin, within the City of Costa Mesa and the City of Irvine. Reference ORC131114-06  Comment Period: 10/4/2016 - 11/2/2016 Public Hearing: 11/9/2016	Notice of Intent to Adopt a Mitigated Negative Declaration	Orange County Water District	Document reviewed - No comments sent
<i>Waste and Water-related</i> <b>ORC161025-03</b> Rehabilitation of Western Regional Sewers, Project No. 3-64	The proposed project consists of the rehabilitation and replacement of the entire length of the Orange Western sub-trunk, Los Alamitos sub-trunk, the Westside Relief Interceptor, and the Seal Beach Boulevard Interceptor sewer lines. The project is located primarily in the Cities of La Palma, Buena Park, Cypress, Anaheim, Los Alamitos, Seal Beach, and Rossmoor. Reference ORC151202-05  Comment Period: 10/17/2016 - 12/1/2016 Public Hearing: 11/17/2016	Notice of Availability of a Draft Environmental Impact Report	Orange County Sanitation District	Under review, may submit written comments

# - Project has potential environmental justice concerns due to the nature and/or location of the project.  
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.



































**ATTACHMENT C  
ACTIVE SCAQMD LEAD AGENCY PROJECTS  
THROUGH OCTOBER 31, 2016**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
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.	Tesoro Refining and Marketing Company Los Angeles Refinery	Environmental Impact Report (EIR)	The comment period for the Draft EIR closed on June 10, 2016. Responses to comments are being prepared.	Environmental Audit, Inc.
The Phillips 66 (formerly ConocoPhillips) Los Angeles Refinery Ultra Low Sulfur Diesel project was originally proposed to comply with federal, state and SCAQMD requirements to limit the sulfur content of diesel fuels. Litigation against the CEQA document was filed. Ultimately, the California Supreme Court concluded that the SCAQMD had used an inappropriate baseline and directed the SCAQMD to prepare an EIR, even though the project has been built and has been in operation since 2006. The purpose of this CEQA document is to comply with the Supreme Court's direction to prepare an EIR.	Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery	Environmental Impact Report (EIR)	The Notice of Preparation/ Initial Study (NOP/IS) was circulated for a 30-day public comment period on March 26, 2012 to April 26, 2012. The consultant submitted the administrative Draft EIR to SCAQMD in late July 2013. The Draft EIR was circulated for a 45-day public review and comment period from September 30, 2014 to November 13, 2014. Two comment letters were received and responses to comments are being prepared.	Environmental Audit, Inc.
Quemetco is proposing an increase in the daily furnace feed rate.	Quemetco	Environmental Impact Report (EIR)	An Initial Study has been prepared by the consultant and is under review by SCAQMD staff.	Trinity Consultants

A shaded row indicates a new project.

[↑ Back to Agenda](#)

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 19

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights SCAQMD rulemaking activities and public workshops potentially scheduled for 2017.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:  
Receive and file.

Wayne Natri  
Acting Executive Officer

PMF:SN:afm:la

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The SCAQMD is required by state law to publish a list of all rules potentially scheduled for consideration during the coming year. The Rule and Control Measure Forecast is expanded for this purpose.

Attached is a list of rulemaking activity scheduled for 2017. A detailed description of the proposed rule adoption or amendment is included. A third column has been added to identify the type of rule (i.e. AQMP, Toxics, or Other). Projected emission reductions will be determined during rulemaking.

## 2017 MASTER CALENDAR

\*An asterisk indicates that the rulemaking is a potentially significant hearing.

+This proposed rule will reduce criteria air contaminants and assist toward attainment of ambient air quality standards.

### 2017

March	Title and Description	Type of Rulemaking
219	<b>Equipment Not Requiring a Written Permit Pursuant to Regulation II</b>	Other
222	<b>Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II</b> Proposed amended Rule 219 will exclude equipment with de minimis emissions from the requirement to obtain written permits. Proposed Amended Rule 222 will be proposed in tandem to add additional equipment categories to the streamlined filing registration program. <i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i>	Other
1430*	<b>Control of Emissions from Grinding Operations at Metal Forging Facilities</b> Proposed Rule 1430 will establish emission reduction requirements for metal grinding operations at forging facilities and possibly other requirements to address metal particulate emissions. <i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i>	Toxics
April		
1420	<b>Emission Standard for Lead</b> In October 2008, U.S. EPA lowered the National Ambient Air Quality Standard (NAAQS) for lead from 1.5 to 0.15 µg/m <sup>3</sup> . Proposed Rule 1420 will establish requirements for lead-emitting sources that are not covered under Rules 1420.1 and Rule 1420.2 to ensure compliance with the lead NAAQS. <i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i>	Toxics
1466	<b>Toxic Air Contaminant Emissions from Decontamination of Soil</b> Proposed Rule 1466 will establish requirements to control toxic particulate emissions from activities involving storing, handling and transporting soils during soil decontamination activities. <i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i>	Toxics

**2017 MASTER CALENDAR (Continued)**

**2017 (Continued)**

<b>May</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
1147*	<p><b>NOx Reductions from Miscellaneous Sources</b>                      Proposed Amended Rule 1147 will modify emission limits for certain source categories based on findings and recommendations from the Rule 1147 Technology Assessment.</p>	Other
1153.1	<p><b>Emissions of Oxides of Nitrogen from Commercial Food Ovens</b>                      Rule 1153.1 was adopted in November 2014 and established NOx emission limits for various types of existing commercial food ovens on a specified compliance schedule. Amendments may be necessary to address applicability and technological feasibility of low-NOx burner technologies for new commercial food ovens.</p> <p><i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1148.3	<p><b>Requirements for Underground Gas Storage</b>                      Proposed Rule 1148.3 will establish requirements to address public nuisance and VOC emissions from underground natural gas storage facilities.</p> <p><i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1150.1	<p><b>Control of Gaseous Emissions from Municipal Solid Waste Landfills</b>                      Proposed amendments will address U.S. EPA revisions to the Standards of Performance for Municipal Solid Waste Landfills (NSPS) and Existing Guidelines and Compliance Timelines (EG) for Municipal Solid Waste Landfills, as well as CARB GHG requirements.</p> <p><i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
Reg III	<p><b>Fees</b>                      Regulation III will incorporate the CPI adjustment to keep pace with inflation, pursuant to Rule 320, and proposed amendments may also make any other needed adjustments.</p> <p><i>Carol Gomez 909.396.3264 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other

**2017 MASTER CALENDAR (Continued)**

**2017 (Continued)**

<b>June</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
1118 <sup>+</sup>	<p><b>Control of Emissions from Refinery Flares</b>                      The proposed amendments would address emissions from flaring during external events like power failures on the local grid and from flaring events caused by refinery activities.  <i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1445	<p><b>Control of Toxic Emissions from Laser Arc Cutting</b>                      Proposed Rule 1445 will establish requirements to reduce toxic metal particulate emissions from laser arc cutting.  <i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Toxics
<b>July</b>		
1426*	<p><b>Emissions from Metal Finishing Operations</b>                      Proposed amendments to Rule 1426 will establish requirements to reduce nickel, cadmium and other air toxics from plating operations.</p>	Toxics
1469*	<p><b>Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations</b>                      Proposed Amended Rule 1469 will strengthen requirements to address potential fugitive emissions from hexavalent chrome plating and anodizing operations.  <i>Susan Nakamura 909.396.3104 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Toxics
2202	<p><b>On-Road Motor Vehicle Mitigation Options</b>                      Rule 2202 will be amended to enhance emission reductions obtained from the Employee Commute Reduction Program (ECRP) rule option.  <i>Carol Gomez 909.396.3264 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other

**2017 MASTER CALENDAR (Continued)**

**2017 (Continued)**

<b>September</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
1168	<p><b>Adhesive and Sealant Applications (CTS-02)</b>                      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: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP
1401	<p><b>New Source Review of Toxic Air Contaminants</b>                      Amendments will update requirements for gas stations and paint booths, and will consider additional administrative changes.  <i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Toxics
<b>October</b>		
415*	<p><b>Odors from Animal Rendering Facilities</b>                      Proposed Rule 415 will establish requirements to reduce odors created during animal rendering operations. The proposed rule will establish Best Management Practices, and will consider enclosure, odor control requirements for the receipt and processing of rendering material and wastewater, and possibly requirements for an Odor Mitigation Plan.  <i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
Reg. IX Reg. X	<p><b>Standards of Performance for New Stationary Sources</b>  <b>National Emission Standards for Hazardous Air Pollutants</b>                      Amendments to Regulations IX and X are periodically made to incorporate by reference new or amended federal performance standards that have been enacted by U.S. EPA for stationary sources. Regulations IX and X provide stationary sources with a single point of reference for determining which federal and local requirements apply to their specific operations.  <i>Carol Gomez 909.396.3264 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1407* 1407.1	<p><b>Control of Emissions of Arsenic, Cadmium and Nickel from Non-Ferrous Metal Operations</b>                      Proposed Rule 1407 will establish additional requirements to minimize air toxics from metal operations. Staff is analyzing sources subject to Rule 1407 and may develop a separate Rule 1407.1 for the largest sources subject to Rule 1407.  <i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Toxics

## 2017 MASTER CALENDAR (Continued)

### 2017 (Continued)

November	Title and Description	Type of Rulemaking
1118.1	<p><b>Control of Emissions from Non-Refinery Flares</b>                      Proposed Rule 1118.1 will seek to reduce emissions from flaring at non-refinery facilities, including alternate uses of gases. The rule would require the installation of newer flares implementing the Best Available Control Technology at sources such as landfills, wastewater treatment plants, and oil and gas production facilities. Alternate uses of flare gas would be encouraged, especially for facilities that, for example, would clean it for use as a transportation fuel, process it to become pipeline-quality dry natural gas, or direct it to equipment that can convert its energy into power and/or heat.</p> <p><i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1180	<p><b>Refinery Fenceline and Community Monitoring</b>                      Proposed Rule 1180 will establish the requirements for fenceline and community monitoring at petroleum refineries.</p> <p><i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1435	<p><b>Control of Emissions from Metal Heat Treating Processes</b>                      Proposed Rule 1435 would establish requirements to reduce metal particulate emissions from heat treating processes.</p> <p><i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Toxics
December		
1410*	<p><b>Hydrogen Fluoride Use at Refineries</b>                      Proposed Rule 1410 will establish requirements for use of hydrogen fluoride at refineries.</p> <p><i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Toxics

**2017 MASTER CALENDAR (Continued)**

**2017 To-Be-Determined**

<b>To-Be-Determined</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
102	<p><b>Definition of Terms</b> Staff may amend Rule 102 to add or revise definitions to support amendments to other Regulation XI rules. <i>Susan Nakamura 909.396.3105 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
223	<p><b>Emission Reduction Permits for Large Confined Animal Facilities</b> Proposed Amended Rule 223 will seek additional emission reductions from large confined animal facilities by lowering the applicability threshold. <i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP
224	<p><b>Incentives for Super-Compliant Technologies</b> Proposed Amended Rule 224 will outline strategies and requirements to incentivize the development, establishment and use of super-compliant technologies. It may be considered as a part of Rule 219 amendments or proposed as a separate incentive. <i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
416	<p><b>Odors from Kitchen Grease Processing</b> Proposed Rule 416 will reduce odors created during kitchen grease processing operations. The proposed rule will establish best management practices, and examine enclosure requirements for wastewater treatment operations and filter cake storage. The proposed rule may also contain requirements for an Odor Mitigation Plan <i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
430	<p><b>Breakdown Provisions</b> This rule will be amended or replaced to address specific issues raised by U.S. EPA regarding start-ups or shutdowns associated with breakdowns. <i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP

**2017 MASTER CALENDAR (Continued)**

**2017 To Be Determined (Continued)**

<b>To-Be-Determined</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
<p>1106 1106.1</p>	<p><b>Marine Coating Operations</b> <b>Pleasure Craft Coating Operations</b> (This item was previously submitted to the Board, but rejected. It will be brought back for Board direction.) The proposed amendment is two-fold: first, Rule 1106.1 is proposed to be rescinded and second, Rule 1106 would subsume the requirements of 1106.1, and revise VOC content limits for pretreatment wash primers, antenna, repair and maintenance thermoplastic, inorganic zinc, and specialty marking coatings in order to align limits with U.S. EPA Control Techniques Guidelines and other California air districts, and add new categories for marine aluminum antifoulant, mist, nonskid and organic zinc coatings and marine deck primer sealant. The proposed amendment would also add provisions for pollution prevention measures, enhanced enforceability, and to promote clarity and consistency. <i>Philip Fine 909.396.2239 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	<p>Other</p>
<p>1107<sup>+</sup></p>	<p><b>Coating of Metal Parts and Products (CTS-02)</b> Potential amendments to Rule 1107 would further reduce VOC emissions and improve rule clarity and enforceability. <i>Philip Fine 909.396.2239 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	<p>AQMP</p>
<p>1111 1111.1</p>	<p><b>Reduction of NO<sub>x</sub> Emissions from Natural Gas Fired, Fan-Type Central Furnaces</b> Rule 1111 may be amended to address compliance challenges. <b>Reduction of NO<sub>x</sub> Emissions from Natural Gas Fired Commercial Furnaces (CMB-01)</b> Proposed Rule 1111.1 will establish equipment-specific nitrogen oxides emission limits and other requirements for the operation of commercial space heaters. <i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	<p>AQMP</p>

**2017 MASTER CALENDAR (Continued)**

**2017 To Be Determined (Continued)**

<b>To-Be-Determined</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
1123 <sup>+</sup>	<p><b>Refinery Process Turnarounds (MCS-03)</b>                      Proposed amendments will implement Control Measure MSC-03 of the 2007 AQMP by establishing procedures that better quantify emission impacts from start-up, shutdown or turnaround activities.</p> <p><i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP
1135	<p><b>Emissions of Oxides of Nitrogen from Electric Power Generating Systems</b>                      At the December 4, 2015 Board meeting, Rule 2001- Applicability was amended, allowing for an off-ramp from the NOx RECLAIM program for electricity generating facilities (EGF) operating at Best Available Control Technology (BACT) or Best Available Retrofit Control Technology (BARCT) NOx emission levels. Any EGF that opts out of the NOx RECLAIM program will need to comply with the proposed amendments to Rule 1135 – Emissions of Oxides of Nitrogen from Electric Power Generating Systems. The primary purpose of these proposed amendments is for the EGF facility to maintain compliance with the NOx RECLAIM emission limits. The EGF owner or operator would need to comply with the newly developed Rule 1135 source-specific requirements no later than three years after approval of their Rule 2001 opt-out plan.</p> <p><i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1136 <sup>*,+</sup>  1450 <sup>*</sup>	<p><b>Wood Products Coatings (CTS-02)</b>                      Amendments may be proposed to existing rule limits and other provisions.</p> <p><b>Control of Methylene Chloride Emissions</b>                      The proposed rule is to reduce exposure to methylene chloride from furniture stripping, remove potential regulatory loopholes, achieve emission reductions where possible and cost effective, include reporting requirements, and clarify the rule language to improve consistency with other SCAQMD VOC rules.</p> <p><i>Philip Fine 909.396.2239 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP  Toxics

**2017 MASTER CALENDAR (Continued)**

**2017 To Be Determined (Continued)**

<b>To-Be-Determined</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
1142	<p><b>Marine Tank Vessel Operations</b>  Revisions to Rule 1142 are proposed to address VOC emissions from marine tank vessel operations and provide clarifications.  <i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1146, 1146.1, 1146.2* <sup>+</sup>	<p><b>Emissions of Oxides of Nitrogen</b>  Amendments to Rules 1146, 1146.1, and 1146.2 may be necessary to respond to advancements in ultra-low NOx burner technology and selective catalytic reduction (SCR) applicability.  <i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.27064 Socio: Jillian Wong 909.396.3176</i></p>	Other
1148.1 1148.2	<p><b>Oil and Gas Production Wells</b>  <b>Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers</b>  Amendments to Rule 1148.2 may be needed to address community notification procedures, the inclusion of water injection wells, and potentially other measures based on an evaluation of information collected since the last rule adoption.  <i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1173 <sup>+</sup>	<p><b>Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants</b>  Proposed revisions to Rule 1173 are being considered based on recent U.S. EPA Regulations and CARB’s oil and gas regulations.  <i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1177 <sup>+</sup>	<p><b>Liquefied Petroleum Gas Transfer and Dispensing (2012 AQMP FUG-02)</b>  Potential amendments may be proposed to include additional sources of emissions from the dispensing and transfer of LPG.  <i>Philip Fine 909.396.2239 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP
1188 <sup>+</sup>	<p><b>VOC Reductions from Vacuum Trucks (FUG-01)</b>  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>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP

**2017 MASTER CALENDAR (Continued)**

**2017 To Be Determined (Continued)**

<b>To-Be-Determined</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
1190, 1191, 1192, 1193, 1194, 1195, 1196, and 1186.1	<p><b>Fleet Vehicle Requirements</b>                      Amendments to Rule 1190 series fleet rules may be necessary to address implementation. In addition, the current fleet rules may be expanded to achieve additional air quality and air toxic benefits.</p> <p><i>Dean Saito 909.396.2647 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1470*	<p><b>Requirement for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines at Sensitive Receptors</b>                      The proposal would address new and existing small (<math>\leq 50</math> brake horsepower) diesel engine emissions located near sensitive receptors such as schools, preschools, daycare centers and health care facilities. Staff is also considering amendments to minimize use of stationary diesel back-up engines, that may include use alternative power sources that are substantially less polluting.</p> <p><i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Toxics
1304.2  1304.3	<p><b>California Public Utilities Commission Regulated Electrical Local Publicly Owned Electrical Utility Fee for Use of SO<sub>x</sub>, PM<sub>10</sub> and NO<sub>x</sub> Offsets</b></p> <p><b>Local Publicly Owned Electrical Generating Facility Fee for Use of SO<sub>x</sub>, PM<sub>10</sub> and NO<sub>x</sub> Offsets</b>                      Proposed Rules 1304.2 and 1304.3 would allow new greenfield facilities and additions to existing electrical generating facilities conditioned access to SCAQMD internal offset accounts for a fee, for subsequent funding of qualifying improvement projects consistent with the AQMP.</p> <p>Proposed Rule 1304.2 will provide offsets so that new, proposed and other existing electrical generating facilities can compete on a level playing field with existing generating facilities with utility steam boilers, and implement the State’s plan to maintain grid reliability.</p> <p>Proposed Rule 1304.3 will provide offsets so that new, proposed and other existing electrical generating facilities run by local municipalities can meet the electricity reliability needs of their customers.</p> <p><i>Tracy Goss 909.396.3106 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other  Other

**2017 MASTER CALENDAR (Continued)**

**2017 To Be Determined (Continued)**

<b>To-Be-Determined</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
Reg. XVI	<p><b>Mobile Source Offset Programs</b>                      Amendments to various Regulation XVI rules will be proposed to address the recent U.S. EPA proposed disapproval of such rules including Rule 1610.  <i>Henry Hogo 909.396.3184 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
Reg. XVII	<p><b>Prevention of Significant Deterioration</b>                      Proposed Regulation XVII will align the AQMD's Prevention of Significant Deterioration program with federal requirements.  <i>Carol Gomez 909.396.3264 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1902	<p><b>Transportation Conformity</b>                      Amendments to Rule 1902 may be necessary to bring the District's Transportation Conformity rule in line with current U.S. EPA requirements.  <i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
1905	<p><b>Pollution Controls for Automotive Tunnel Vents</b>                      This proposed rule would address emissions from proposed roadway tunnel projects that could have air quality impacts.  <i>Ian MacMillan 909.396.3244 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
Reg. XXIII	<p><b>Emissions Growth Management of Various Emissions Sources</b>                      Regulation XXIII will contain rules related to emissions growth management of various emission sources including, but not limited to, new or redevelopment projects and other sources where criteria pollutant emissions associated with the region's growth may cause or exacerbate exceedance of an air quality standard. Proposed rule(s) will implement the 2007 AQMP Control Measure EGM-01 – Emission Reductions from New or Redevelopment Projects and potential implementation of EGM-01 proposed in the Draft 2016 AQMP if approved by the Board. Regulation XXIII may include other sources as provided in the Final 2016 AQMP to be submitted to U.S. EPA.  <i>Henry Hogo 909.396.3184 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP

**2017 MASTER CALENDAR (Continued)**

**2017 To Be Determined (Continued)**

<b>To-Be-Determined</b>	<b>Title and Description</b>	<b>Type of Rulemaking</b>
Reg. XXV	<p><b>On-Road and Off-Road Mobile Source Credit Generation Programs</b>                      Regulation XXV will contain rules to allow generation of criteria pollutant mobile source emission reduction credits (MSERC) from various on-road and off-road sources, such as on-road heavy-duty trucks, off-road equipment, locomotives, and marine vessels. Credits will be generated by retrofitting existing engines or replacing the engines with new lower-emitting or zero-emission engines. The Draft 2016 AQMP proposed limiting use of MSERCs to facilities where the mobile source emissions occur.</p> <p><i>Henry Hogo 909.396.3184 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	AQMP
Reg. XXVII	<p><b>Climate Change</b>                      Changes may be needed to Regulation XXVII to add or update protocols for GHG reductions, and other changes.</p> <p><i>Philip Fine 909.396.2239 CEQA: Michael Krause 909.396.2706 Socio: Jillian Wong 909.396.3176</i></p>	Other
Reg. II, III, IV, IX, X, XI, XIII, XIV, XX, XXIII, 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, new or amended rules to implement the 2012 or 2016 AQMP measures. This includes measures in the 2010 CCP or 2016 AQMP to reduce toxic air contaminants or reduce exposure to air toxics from stationary, mobile, and area sources. Rule amendments may include updates to provide consistency with CARB Statewide Air Toxic Control Measures or EPA's National Emission Standards for Hazardous Air Pollutants.</p>	Other

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 20

**PROPOSAL:** Approve Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2014-15

**SYNOPSIS:** This report contains data on the AB 2766 Subvention Fund Program for FY 2014-15 as requested by CARB. This action is to approve the AB 2766 Annual Report.

**COMMITTEE:** Mobile Source, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTION:**

Approve the Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2014-15, for submittal to CARB.

Wayne Natri  
Acting Executive Officer

PF:CG:KH:ED

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**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 percent of the first \$4 of each vehicle registration fee to implement projects that reduce mobile source emissions. The SCAQMD distributes these funds 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 2014-15.

### **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 2014-15.

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 2014-15, local governments received \$21.7 million from motor vehicle fees and spent \$17 million on mobile source emission reduction projects. Approximately \$31.8 million or 66 percent of their ending balances (which includes unspent monies from prior years) was pre-designated for future projects, which is a slight decrease from the 69 percent pre-designation of funds in FY 2013-14. 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 2014-2015 reduced 6,198 (VOC, NO<sub>x</sub>, PM<sub>2.5</sub> and CO/7) tons of emissions. The emissions reduced from projects funded had an overall average cost-effectiveness of \$0.64 per pound of emissions reduced. Excluding one outlying Miscellaneous Project, which had a significant effect on the overall cost-effectiveness, the average cost-effectiveness would be \$7.21 per pound, which is below 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 respective Councils of Governments that 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 2014-15

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

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**Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for  
FY 2014-15**

**December 2, 2016**

**Acting Executive Officer**

Wayne Nastri

**Deputy Executive Officer**

**Planning, Rule Development & Area Sources**

Philip M. Fine, Ph.D.

**Acting Assistant Deputy Executive Officer**

**Planning, Rule Development, and Area Sources**

Susan Nakamura

**Planning and Rules Manager**

Carol Gomez

**Program Supervisor**

Kathryn Higgins

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Reviewed by:	William Wong	Principal Deputy District Counsel

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

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Speaker of the Assembly Appointee

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Supervisor, Second District  
County of San Bernardino

**ACTING EXECUTIVE OFFICER:**

WAYNE NASTRI

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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 2014-15, 162 local governments in the South Coast Air District were eligible to receive AB 2766 Subvention Funds. In summary, these jurisdictions were subvended \$21.7 million to implement projects that reduce mobile source emissions. From the funds received, they spent \$17 million 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 \$10.3 of the \$17 million program expenditures. The Miscellaneous Projects category represented the bulk of the emissions reduced for this fiscal reporting cycle. In total, local governments implemented 368 projects of which 229 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. 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 California Department of Motor Vehicles (DMV) 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 Air 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 solely addresses the AB 2766 funds subvended to local governments by accounting for projects, financial expenditures, emissions reduced, and the cost-effectiveness of the projects implemented through the AB 2766 Subvention Fund Program during FY 2014-15.

AB 2766 fees are collected by the DMV and subvented to the SCAQMD on a monthly basis. The SCAQMD Finance Division disburses the AB 2766 revenues to local governments quarterly. During FY 2014-15, 162 local governments were eligible to receive AB 2766 funds (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 required 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. Although SCAQMD staff reviews and evaluates the AB 2766 reports submitted, SCAQMD has not been given specific authority to “approve” or “disapprove” a local government’s use of AB 2766 funds, H&S Code 44243(b)(1). Nevertheless, the city or county receiving such AB 2766 funds is required to deposit them into an air quality improvement trust fund for expenditures to reduce air pollution from motor vehicles, pursuant to H&S Code 44243(b)(1)(c).

Staff provides technical assistance and guidance according to AB 2766 criteria and guidelines established by CARB, and to “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.

Local jurisdictions are encouraged to pre-designate funds budgeted for specific projects that may be implemented in the future. A detailed summary of local government reporting (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.

### **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 assistance in identifying projects that are eligible for AB 2766 funding. The AB 2766 Resource 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 AB 2766 program data and collaborates with CARB staff on ways to improve the automated software for local governments to report their AB 2766 funded project results. SCAQMD staff conducts technical training sessions for local government representatives and Council of Governments (COG) staff to provide an overview of the program guidelines and policies, familiarize them with the electronic report submittal process, and respond to inquiries related to the annual reporting software.

Staff conducted ten (10) AB 2766 technical training sessions during the months of December 2015, January and February 2016, which 99 local government representatives attended. During the training sessions, staff provided detailed instructions on the AB 2766 Annual Report OnBase submittal process. This system automatically notifies the transmitting entity, via email, of the status of the annual program report transmission (successful or unsuccessful). Local governments access the OnBase system with customized logins and password, and directly upload their AB 2766 Annual Reports. In addition to the direct uploading of the AB 2766 Annual Reports, the system allows local jurisdictions to monitor the status of SCAQMD's review (pending, questions, or accepted). The OnBase system also has a feature which gives local governments' access to their previously submitted reports. Use of the OnBase system fosters enhanced AB 2766 program efficiency, 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 makers 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 also assisted local governments with emission reduction calculations and provided hands-on instruction in the use of the automated reporting system.

SCAQMD staff has received and evaluated the FY 2014-15 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 Council of Governments (COG) in order to pool their resources to implement projects that reduce emissions 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 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 track the cost-effectiveness of the projects and programs implemented using subvention funds given by local governments to COGs, local governments were asked to provide

information on the use of the AB 2766 funds that they gave to their COGs for mobile source emission reduction projects. COGs provided 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**

<b>COG Name</b>	<b>Expenditure Amount*</b>	<b>Project Description**</b>
Coachella Valley	\$308,809	Regional PM Street Sweeping Program using alternative fuel equipment to sweep approximately 22,539 curb miles to remove roadway dust.
Western Riverside	\$120,000	Clean Cities Coalition promoting emission reductions from motor vehicles through alternative fuel and advanced technology vehicles.
Gateway Cities	\$76,226	I-710 Corridor EIR/EIS
San Gabriel Valley	\$13,000	Mobility Matrix - Addresses transportation systems in the San Gabriel Valley, including bikeways and pedestrian 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 subvended 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 reflects the eleven (11) AB 2766 Project Categories and examples of projects that meet the criteria and guidelines established by CARB for AB 2766 fund expenditures:

1. **Alternative Fuels/Electric Vehicles** - 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 fuel engines. Installing alternative fuel and electric charging infrastructure to support the use of alternative fuel and electric vehicles; and, purchasing alternative fuel or electricity for up to three years after vehicle purchase.
2. **Vehicle Emissions Abatement** - Using 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** - Utilizing Land Use strategies that make it easier for people 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** – Constructing/installing or enhancing public transportation facilities designed to provide new or extended services or to increase the use of existing systems; installing equipment that contains public transit information and fare subsidies. Introduction of new or extended transit service, providing fare subsidies, implementation of rail feeder operations and marketing; purchase or lease of alternative fuel vans, buses or shuttles for transit service.
  5. **Traffic Management and Signal Coordination** – Installing 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; implementing 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 and shoulders; purchasing SCAQMD Rule 1186.1 compliant street sweepers.
  10. **Public Education** – Coordinating promotional events or programs to educate the public and schools about transportation alternatives, and the relationship between motor vehicles and air pollution.
  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 SCAB region used their AB 2766 subvention funds during FY 2014-15 is provided in Table 2. Local governments have the ability to carry over fund balances indefinitely, which allows them the flexibility to accumulate funding for future projects or to secure additional co-funding. Local governments spent less subvention funds on mobile source emission reduction projects, \$17 million, than they received, \$21.7 million. They spent 26% of their combined beginning balance and MV fees received, which is a decrease from FY 2013-14, when cities and counties spent 32% (\$19.8 million) of the total beginning balances and MV fees received.

Table 2 also shows that of the \$48.3 million ending balance reported by local governments, approximately \$31.8 million, or 66% of the ending balance was pre-designated for future projects. This indicates a slight decrease from FY 2013-14, when 69% of the region-wide ending balance was pre-designated for future projects.

**Table 2**  
**Motor Vehicle (MV) Funds Financial Summary**  
**(As Reported by Local Jurisdictions)**

County	Beginning Balance	MV Fees Received	Project Spending	Ending <sup>1</sup> Balance	Pre-designated Funds	Funds Remaining
Los Angeles	\$20,629,110	\$12,577,544	\$9,988,805	\$23,193,422	\$14,407,700	\$8,785,722
Orange	\$11,727,948	\$4,088,695	\$2,863,541	\$12,971,613	\$9,036,574	\$3,935,039
Riverside	\$5,230,335	\$2,928,623	\$2,290,694	\$5,844,745	\$3,537,746	\$2,306,999
San Bernardino	\$5,924,860	\$2,143,743	\$1,822,954	\$6,241,033	\$4,849,101	\$1,391,932
<b>Totals*</b>	<b>\$43,512,253</b>	<b>\$21,738,605</b>	<b>\$16,965,994</b>	<b>\$48,250,812</b>	<b>\$31,831,121</b>	<b>\$16,419,692</b>

\*Totals may vary due to rounding.

Table 3 shows the funding, project expenditure levels, and funds pre-designated by local governments over the last five fiscal year reporting cycles. California Department of Motor Vehicle funding subvented to local governments has increased this reporting cycle, however, local governments spent a lower percentage of the funds received on eligible AB 2766 projects compared to the prior reporting cycle (78% vs 97%).

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<sup>1</sup> 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**

<b>Fiscal Year</b>	<b>Beginning Balance</b>	<b>MV Fees Received</b>	<b>Project Spending</b>	<b>Ending Balance</b>	<b>Pre-designated Funds</b>	<b>Funds Remaining</b>
<b>2010-11</b>	\$36,393,300	\$18,896,600	\$17,597,000	\$37,774,900	\$28,477,300	\$9,297,600
<b>2011-12</b>	\$37,430,200	\$20,717,200	\$18,988,800	\$39,188,200	\$28,154,100	\$11,034,100
<b>2012-13</b>	\$41,152,100	\$20,095,200	\$18,556,900	\$42,562,000	\$30,785,600	\$11,776,400
<b>2013-14</b>	\$42,292,200	\$20,295,100	\$19,783,800	\$42,803,400	\$29,534,600	\$13,257,800
<b>2014-15</b>	<b>\$43,512,253</b>	<b>\$21,738,605</b>	<b>\$16,965,994</b>	<b>\$48,250,812</b>	<b>31,831,121</b>	<b>\$16,419,692</b>

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 2014-15. 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 (157). Orange County had the second highest number of projects funded (101), followed by Riverside County (79) and San Bernardino (31). For this reporting cycle, San Bernardino County has yielded the highest percentage (71%) of quantified projects.

**Table 4**  
**Local Government Project Reporting and Emission Reduction Quantification**

<b>County</b>	<b>Number of Local Governments Reporting</b>	<b>Number of Projects Funded</b>	<b>Number of Projects with Emission Reductions Quantified</b>	<b>Percent of Projects with Emission Reductions Quantified</b>
<b>Los Angeles</b>	<b>82</b>	<b>157</b>	<b>96</b>	<b>61%</b>
<b>Orange</b>	<b>35</b>	<b>101</b>	<b>58</b>	<b>57%</b>
<b>Riverside</b>	<b>28</b>	<b>79</b>	<b>56</b>	<b>71%</b>
<b>San Bernardino</b>	<b>17</b>	<b>31</b>	<b>19</b>	<b>61%</b>
<b>Totals</b>	<b>162</b>	<b>368</b>	<b>229</b>	<b>62%</b>

Table 5 shows 229 projects with emission reductions quantified, which is an increase from the 222 projects quantified in FY 2013-14. 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 62% for FY 2014-15. The percentage of expenditures quantified was 67% during the last reporting cycle and has decreased to 64% during FY 2014-15. Although there was a decrease in the percentage of project

expenditures quantified, there was an increase in the emission reductions achieved for this reporting cycle as discussed later in this report.

CARB provides emission reduction calculation methodologies, along with the corresponding emission factors for some of the most widely implemented transportation projects funded through this program. The annual emission reductions, as well as the cost-effectiveness of the projects are calculated based on local government reporting. Emission reductions from several types of projects are difficult to quantify or cannot be quantified, such as Research and Development (R&D) and Infrastructure projects, as well as Public Education and Outreach programs.

**Table 5**  
**Project Quantification History**

<b>Year</b>	<b>Number of Projects</b>	<b>Projects with Emission Reductions Quantified</b>	<b>Percent of Projects Quantified</b>	<b>Percent of Expenditures Quantified</b>
<b>FY 2010-11</b>	324	187	58%	73%
<b>FY 2011-12</b>	318	194	61%	74%
<b>FY 2012-13</b>	319	203	64%	71%
<b>FY 2013-14</b>	353	222	63%	67%
<b>FY 2014-15</b>	<b>368</b>	<b>229</b>	<b>62%</b>	<b>64%</b>

Data in Table 6 shows the FY 2014-15 expenditures made in ten of the eleven AB 2766 project categories. There were no projects reported in the Market Based Strategies project category, as has been the case since FY 2006-07. Table 6 shows FY 2014-15 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 together represent 61% or about \$10.3 million of the \$17 million program expenditures. A significant amount of these funds were spent towards SCAQMD rule compliance related activities, such as implementation of SCAQMD Clean Fleet Rules and Rule 2202 Employer Trip Reduction programs.

**Table 6**  
**Expenditures by Project Category**

<b>Project Category</b>	<b>Project Spending*</b>	<b>Percent of Spending*</b>	<b># of Projects</b>
<b>Alternative Fuels/Electric Vehicles</b>	\$5,641,917	33%	102
<b>Transportation Demand Management</b>	\$4,698,227	28%	83
<b>Miscellaneous Projects</b>	\$1,823,559	11%	39
<b>Land Use</b>	\$1,459,521	9%	19
<b>PM Reduction Strategies</b>	\$1,051,210	6%	20
<b>Traffic Management</b>	\$1,039,146	6%	47
<b>Public Transportation</b>	\$640,033	4%	27
<b>Bicycles</b>	\$332,240	2%	19
<b>Public Education</b>	\$244,592	1%	10
<b>Vehicle Emission Abatement</b>	\$35,550	0	2
<b>Totals*</b>	<b>\$16,965,994</b>	<b>100%</b>	<b>368</b>

\*Numbers may vary due to rounding.

**Emission Reductions & Cost-Effectiveness**

Table 7 summarizes, by county, the number of projects funded, project spending, and the emission reductions achieved. Local governments in Los Angeles County reported the vast majority of project spending, \$10 million (59%) and also represented the majority of annual emission reductions, 6,146 tons, in the SCAB region for the year. During FY 2014-15, a total of 6,198 tons of emissions were reduced in the SCAB by projects funded with AB 2766 Subvention money.

**Table 7**  
**AB 2766 Project Spending and Emissions Reduced**

<b>County</b>	<b>Number of Projects Funded</b>	<b>Project Spending</b>	<b>Emissions Reduced<sup>2</sup> (Tons/Year)</b>
<b>Los Angeles</b>	<b>157</b>	<b>\$9,988,805</b>	<b>6,146</b>
<b>Orange</b>	<b>101</b>	<b>\$2,863,541</b>	<b>26</b>
<b>Riverside</b>	<b>79</b>	<b>\$2,290,694</b>	<b>16</b>
<b>San Bernardino</b>	<b>31</b>	<b>\$1,822,954</b>	<b>10</b>
<b>Totals*</b>	<b>368</b>	<b>\$16,965,994</b>	<b>6,198</b>

\*Numbers may vary due to rounding.

<sup>2</sup> Emissions reduced account for total reductions (VOC, NOx, PM<sub>2.5</sub> and CO/7) from Air Fund expenditures. Air Funds consist of the Motor Vehicle Fees and funding from both the state Carl Moyer Program and the AB 2766 Discretionary Fund. See Attachment B: Average Cost-Effectiveness by Project.

The 6,198 tons per year of emission reductions represents an increase from the 5,463 tons per year of emissions reduced during the FY 13-14 reporting cycle (see Table 9). This increase may be attributed to the Miscellaneous Projects category which reported a significantly higher amount of emission reductions in this fiscal reporting cycle as compared to the FY 2013-14 reporting cycle. In contrast, the Alternative Fuels/Electric Vehicles project category reported a decrease in emission reductions 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 Miscellaneous Project category represents the bulk of the emissions reduced. This project category includes an Automatic Traffic Surveillance project (ATSAC), which accounts for 5,732 tons per year of emissions reduced, or about 92% of the 6,198 tons per year of total emissions reduced from all AB 2766 project categories. Thus, the cost-effectiveness of the Miscellaneous Project category was significantly skewed by the traffic surveillance project. Note, however, that only 11% (see Table 6) of the total funding received was spent within this category.

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 better understand the importance of long-term project planning and has encouraged them to research and obtain other funding sources, and to create and identify 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 \$0.12 - \$134.73 per pound of emissions reduced. The overall total average cost-effectiveness was computed as \$0.64 per pound of emissions reduced. However, as noted above, the ATSAC project, reported in the Miscellaneous Project category, has a significant impact 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 \$7.21 per pound of emissions reduced instead of \$0.64 per pound. Taking this into consideration, the overall total cost-effectiveness would continue to be below 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**  
**Emissions Reduced and Cost-Effectiveness by Project Category**

<b>Project Category</b>	<b>Number of Projects</b>	<b>Number of Projects Quantified</b>	<b>Percent of Projects Quantified</b>	<b>Emissions Reduced<sup>3</sup> (lbs. /yr.)</b>	<b>Emissions Reduced<sup>4</sup> (tons/yr.)</b>	<b>Air Funds Cost-Effectiveness<sup>5</sup> (\$/lb.)</b>
<b>Miscellaneous Projects<sup>6</sup></b>	39	8	21%	11,823,495	5,912	\$0.12
<b>Transportation Demand Management</b>	83	73	88%	498,670	249	\$9.08
<b>Traffic Management</b>	47	25	53%	26,881	13	\$4.54
<b>Alternative Fuels/ Electric Vehicles</b>	102	75	74%	26,175	13	\$20.10
<b>PM Reduction Strategies</b>	20	19	95%	13,259	7	\$63.11
<b>Public Transportation</b>	27	18	67%	4,912	2	\$69.12
<b>Vehicle Emissions Abatement</b>	2	2	100%	2,336	1	\$5.04
<b>Bicycles</b>	19	9	47%	981	1	\$134.73
<b>Land Use</b>	19	0	0%	-0-	-0-	\$0
<b>Public Education</b>	10	0	0%	-0-	-0-	\$0
<b>TOTALS*</b>	<b>368</b>	<b>229</b>	<b>62%</b>	<b>12,396,710</b>	<b>6,198</b>	<b>\$0.64</b>

\*Totals may vary slightly due to rounding.

Approximately 6,198 tons per year (VOC, NO<sub>x</sub>, PM<sub>2.5</sub> and CO/7) or about 17 tons per day of pollution was eliminated during FY 2014-15 from \$17 million expended by local governments, compared to 5,463 tons per year of quantifiable reductions achieved in FY 2013-14 from \$19.8 million expended.

The history of the AB 2766 Program’s 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 2014-15 was approximately \$0.64 per pound of emissions reduced.

The average cost-effectiveness figure is determined by dividing the Amortized Air Fund dollar amount (\$7.9 million) which is associated with quantified projects, by the total amount of emission reductions (12,396,710 million lbs./yr.). Table 9 illustrates the progress that has been made since FY 2010-11 in

3 Emissions reduced account for total reductions (VOC, NO<sub>x</sub>, PM<sub>2.5</sub> and CO/7) from the state Carl Moyer Program and the AB 2766 Discretionary Fund. See Attachment B: Average Cost-Effectiveness by Project, pg. 60.

4 Emissions reduced (tons/year) is determined by dividing by 2,000 lbs. Totals may vary slightly due to rounding.

5 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. 60.

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). It also provides local jurisdictions the opportunity to utilize a CARB approved emission reduction calculation by using local specific inputs.

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**

<b>Fiscal Year</b>	<b>Emissions Reduced* (lbs./yr.)</b>	<b>Emissions Reduced* (tons/yr.)</b>	<b>Cost-Effectiveness** (\$/lb.)</b>	<b>Cost-Effectiveness** (\$/ton)</b>
<b>FY 2010-11</b>	11,613,570	5,807	\$0.82	\$1,632
<b>FY 2011-12</b>	11,428,656	5,714	\$0.82	\$1,650
<b>FY 2012-13</b>	11,901,177	5,961	\$0.73	\$1,451
<b>FY 2013-14</b>	10,926,821	5,463	\$0.83	\$1,655
<b>FY 2014-15</b>	12,396,710	6,198	\$0.64	\$1,280

\*Emission reductions determined by the EMFAC emissions model in effect for the year specified.

\*\*In current 2015 dollars, using Marshal & Swift Indexes.

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 has changed slightly in this fiscal reporting cycle, with the Miscellaneous Project category/subcategory expenditures exceeding the Traffic Flow or Signalization subcategory. Staff associates this increase with the City of Los Angeles ATSAC Project, which has been previously reported in the Traffic Flow Signalization project category; for this fiscal reporting cycle, a CARB approved methodology was used, as noted previously, in lieu of utilizing the calculation provided in the Traffic Flow Signalization category. The total sum of expenditures in these three subcategories indicated that there was an increase in the percentage of funding dollars spent (50%), compared to 46% reported in the FY 2013-14 reporting cycle. Combined, the total expenditures for these top three subcategories is approximately \$8.4 million. This amount represents almost half (49%) of the \$17 million MV fees spent on mobile source projects during FY 2014-15. There was a significant increase in project spending in the Employer Based Trip Reduction subcategory and a noteworthy increase in the Alternative Fuel Vehicle Purchases subcategory.

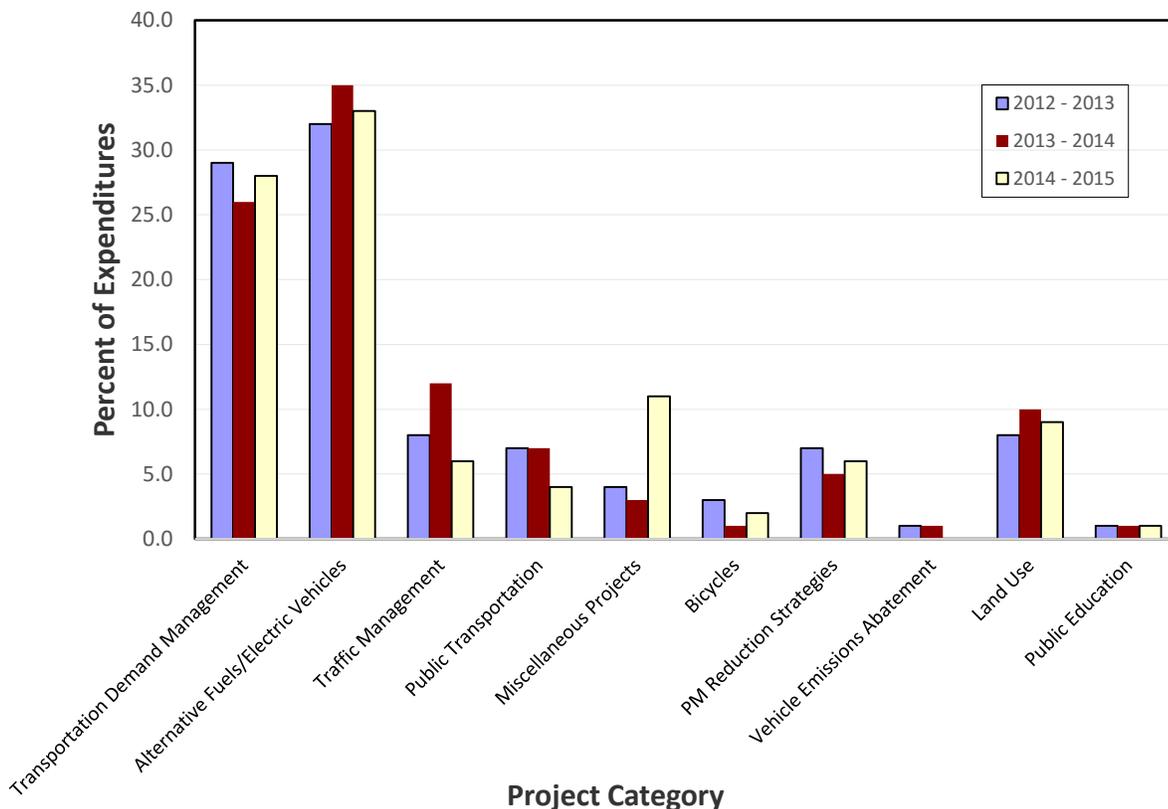
**Table 10**  
**Project Subcategories with Highest Funding Allocations**

<b>Project Category (# of Projects)</b>	<b>Project Subcategory (# of Projects)</b>	<b>Project Subcategory Expenditures</b>	<b>Percent of Project Category Expenditures*</b>
Transportation Demand Management (83)	Employer Based Trip Reductions (67)	\$4,010,442	85%
Alternative Fuels/Electric Vehicles (102)	Alternative Fuel Vehicle Purchases (65)	\$2,615,240	46%
Misc. Projects (39)	Misc. Projects (39)	\$1,823,559	100%
Land Use (19)	Develop Guidelines (4)	\$1,089,563	75%
PM Reduction Strategies (20)	Road Dust Control (20)	\$1,051,210	100%
Traffic Management (47)	Traffic Flow & Signalization (34)	\$850,544	82%
Public Transportation (27)	Passenger Fare Subsidies (15)	\$328,550	52%
Public Education (10)	Short Term PE (promote transit, rideshare) (7)	\$205,529	62%
Bicycles (19)	Bicycle Lanes & Trails (4)	\$114,763	47%
Vehicle Emissions Abatement (2)	Old Vehicle Scrappage (1)	\$26,730	75%

\*Project Category Expenditures shown in Table 6.

Figure 1 depicts a comparison, by percentage, of the expenditures made in all project categories during FYs 2012-13, 2013-14 and 2014-15. There was a significant increase in project spending in the Miscellaneous, Transportation Demand Management, and PM Reduction Strategies project categories.

**Figure 1**  
**Project Expenditure Comparisons**



## V. PROGRAM OUTREACH

The following information summarizes future 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 AB 2766 software submittal procedures, as well as updates, changes and/or modifications to the AB 2766 Program.

**ATTACHMENT A**  
**Eligible Cities and Counties (FY 2014-15)**

## Eligible Cities and Counties (FY 2014-15)

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			
<b>Total Eligible Governments = 162</b>	<b>Los Angeles = 82</b>	<b>Orange = 35</b>	<b>Riverside = 28</b>	<b>San Bernardino = 17</b>

**ATTACHMENT B**

**FY 2014-15 AB 2766 Subvention Fund Program Reports**

## South Coast Cities and Counties Financial Summary of Motor Vehicle Funds

Fiscal Year 2014 - 2015

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	\$37,111	\$25,590	\$0	\$62,701	\$60,000	\$1,200	\$1,501	\$1,000
	Alhambra	\$322,408	\$105,037	\$1,613	\$429,058	\$123	\$0	\$428,935	\$300,000
	Arcadia	\$155,979	\$71,341	\$1,276	\$228,596	\$79,507	\$0	\$149,090	\$149,090
	Artesia	\$118,451	\$99,997	\$281	\$218,729	\$2,641	\$0	\$216,089	\$0
	Azusa	\$259,111	\$77,633	\$1,343	\$338,087	\$225,085	\$2,350	\$110,652	\$77,460
	Baldwin Park	\$80,060	\$70,206	\$370	\$150,636	\$2,635	\$0	\$148,002	\$30,000
	Bell	\$95,700	\$44,631	\$56	\$140,387	\$78,114	\$0	\$62,273	\$0
	Bell Gardens	\$114,551	\$66,609	\$622	\$181,782	\$18,069	\$0	\$163,713	\$113,000
	Bellflower	\$201,526	\$96,454	\$1,757	\$299,737	\$0	\$0	\$299,737	\$491,000
	Beverly Hills	\$404,127	\$42,848	\$4,208	\$451,183	\$35,854	\$0	\$415,329	\$368,273
	Burbank	\$225,761	\$130,949	\$3,331	\$360,041	\$143,157	\$0	\$216,884	\$216,883
	Calabasas	\$81,211	\$37,374	\$1,110	\$119,695	\$30,533	\$0	\$89,162	\$81,211
	Carson	\$166,713	\$114,935	\$1,409	\$283,056	\$19,210	\$0	\$263,846	\$160,000
	Cerritos	\$367,469	\$61,488	\$2,787	\$431,744	\$37,436	\$3,074	\$391,233	\$391,233
	Claremont	\$187,650	\$44,566	\$615	\$232,831	\$33,271	\$0	\$199,560	\$175,000
	Commerce	\$0	\$16,133	\$22	\$16,155	\$16,133	\$0	\$22	\$0
	Compton	\$350,346	\$266,981	\$2,364	\$619,692	\$65,045	\$0	\$554,646	\$350,000
	County of LA	\$910,000	\$1,296,701	\$6,402	\$2,213,102	\$424,073	\$0	\$1,789,029	\$1,789,029
	Covina	(\$1,247)	\$60,322	\$0	\$59,075	\$7,846	\$2,950	\$48,279	\$48,279
	Cudahy	\$25,875	\$29,953	\$67	\$55,895	\$17,101	\$0	\$38,794	\$17,500
	Culver City	\$226,155	\$50,175	\$1,068	\$277,399	\$74,078	\$0	\$203,321	\$150,000
	Diamond Bar	\$165,579	\$69,976	\$1,016	\$236,571	\$29,366	\$0	\$207,205	\$200,000
	Downey	\$652,364	\$176,978	\$5,245	\$834,587	\$112,823	\$7,324	\$714,440	\$550,000
	Duarte	\$42,921	\$26,882	\$157	\$69,960	\$3,730	\$1,341	\$64,889	\$35,000
	El Monte	\$127,655	\$142,762	\$270	\$270,687	\$206,958	\$0	\$63,728	\$63,728
	El Segundo	\$5,849	\$20,877	\$253	\$26,979	\$0	\$0	\$26,979	\$6,102
	Gardena	\$86,655	\$74,545	\$453	\$161,653	\$0	\$3,727	\$157,926	\$95,000
	Glendale	\$322,000	\$242,931	\$2,056	\$566,987	\$242,931	\$0	\$324,056	\$50,000

<b>Funds</b>		<b>Beginning</b>	<b>Motor Vehicle</b>		<b>Revenue</b>	<b>Project</b>		<b>Ending</b>	<b>Pre-designated for</b>
<b>County</b>	<b>Local Name</b>	<b>Balance</b>	<b>Fees Received</b>	<b>Interest</b>		<b>Spending</b>	<b>Admin</b>	<b>Balance</b>	<b>Future Year</b>
	Glendora	\$197,892	\$63,636	\$1,431	\$262,959	\$12,182	\$3,348	\$247,428	\$200,000
	Hawaiian Gardens	\$126,769	\$17,936	\$269	\$144,974	\$1,773	\$48	\$143,153	\$0
	Hawthorne	\$202,397	\$107,501	\$107	\$310,005	\$102,290	\$840	\$206,875	\$0
	Hermosa Beach	\$14,027	\$24,504	\$255	\$38,786	\$2,370	\$0	\$36,416	\$36,416
	Hidden Hills	\$48,425	\$2,348	\$131	\$50,904	\$0	\$0	\$50,904	\$0
	Huntington Park	\$433,762	\$99,703	\$847	\$534,312	\$20,521	\$957	\$512,834	\$0
	Inglewood	\$409,824	\$138,706	\$17,926	\$566,455	\$51,972	\$0	\$514,483	\$0
	Irwindale	\$1,823	\$1,819	\$4	\$3,646	\$0	\$0	\$3,646	\$0
	La Canada Flintridge	\$229,173	\$32,063	\$4,252	\$265,489	\$0	\$0	\$265,489	\$138,800
	La Habra Heights	\$6,078	\$6,725	\$18	\$12,821	\$2,702	\$0	\$10,119	\$0
	La Mirada	\$271,704	\$76,779	\$1,808	\$350,291	\$7,678	\$0	\$342,613	\$150,000
	La Puente	\$281,358	\$50,222	\$1,342	\$332,922	\$229,926	\$0	\$102,996	\$100,000
	La Verne	\$366,438	\$50,308	\$2,518	\$419,264	\$10,258	\$1,710	\$407,296	\$81,261
	Lakewood	\$106,873	\$100,776	\$515	\$208,164	\$84,144	\$4,569	\$119,451	\$118,527
	Lawndale	\$72,331	\$41,226	\$130	\$113,687	\$81,159	\$0	\$32,528	\$0
	Lomita	\$74,446	\$32,205	\$76	\$106,727	\$41,283	\$1,610	\$63,834	\$61,000
	Long Beach	\$3,431,104	\$583,498	\$12,677	\$4,027,278	\$24,863	\$1,313	\$4,001,103	\$2,586,031
	Los Angeles (City)	\$1,954,972	\$4,826,351	\$39,032	\$6,820,355	\$6,043,837	\$89,918	\$686,600	\$273,808
	Lynwood	\$111,913	\$110,825	\$613	\$223,351	\$0	\$0	\$223,351	\$0
	Malibu	\$11,948	\$15,962	\$60	\$27,970	\$0	\$0	\$27,970	\$27,970
	Manhattan Beach	\$169,976	\$55,605	\$1,757	\$227,338	\$8,880	\$1,757	\$216,701	\$154,000
	Maywood	\$85,503	\$34,440	\$0	\$119,943	\$0	\$0	\$119,943	\$0
	Monrovia	\$288,718	\$58,009	(\$71)	\$346,656	\$9,404	\$0	\$337,252	\$65,000
	Montebello	\$389,798	\$78,819	\$1,008	\$469,625	\$43,998	\$3,913	\$421,714	\$150,000
	Monterey Park	\$253,738	\$76,330	\$1,143	\$331,211	\$38,591	\$0	\$292,620	\$190,000
	Norwalk	\$129,296	\$132,297	\$685	\$262,278	\$132,287	\$0	\$129,991	\$0
	Palos Verdes Estates	\$94,412	\$16,954	\$957	\$112,323	\$26,895	\$0	\$85,428	\$83,311
	Paramount	\$159,507	\$68,303	\$423	\$228,233	\$0	\$3,350	\$224,883	\$32,350
	Pasadena	\$23,967	\$174,690	\$358	\$199,015	\$98,410	\$0	\$100,605	\$100,605
	Pico Rivera	\$209,500	\$79,248	\$1,041	\$289,789	\$58,558	\$3,962	\$227,269	\$55,600
	Pomona	\$849,603	\$188,710	\$970	\$1,039,282	\$110,720	\$9,408	\$919,154	\$579,283

County	Local Name	Funds			Revenue	Project Spending	Admin	Ending Balance	Pre-designated for Future Year
		Beginning Balance	Motor Vehicle Fees Received	Interest					
	Rancho Palos Verdes	\$102,602	\$66,122	\$203	\$168,927	\$66,122	\$0	\$102,805	\$0
	Redondo Beach	\$91,980	\$84,017	\$666	\$176,663	\$63,613	\$4,383	\$108,667	\$0
	Rolling Hills Estates	\$34,120	\$12,777	\$75	\$46,972	\$0	\$0	\$46,972	\$46,972
	Rosemead	\$171,059	\$67,672	\$973	\$239,704	\$22,693	\$0	\$217,011	\$217,010
	San Dimas	\$96,555	\$42,274	\$264	\$139,092	\$10,533	\$2,114	\$126,445	\$100,000
	San Fernando	\$135,092	\$30,053	\$179	\$165,324	\$0	\$0	\$165,324	\$135,000
	San Gabriel	\$46,329	\$62,953	\$360	\$109,642	\$50,010	\$0	\$59,632	\$59,631
	San Marino	\$3,699	\$16,476	\$39	\$20,214	\$1,703	\$0	\$18,511	\$18,512
	Santa Clarita	\$267,816	\$258,386	\$2,765	\$528,967	\$10,700	\$6,081	\$512,186	\$512,186
	Santa Fe Springs	\$40,617	\$21,525	\$177	\$62,319	\$0	\$0	\$62,319	\$62,319
	Santa Monica	\$538,830	\$114,305	\$6,223	\$659,358	\$35,632	\$5,591	\$618,135	\$337,900
	Sierra Madre	\$102,834	\$13,488	\$118	\$116,440	\$0	\$0	\$116,440	\$70,000
	Signal Hill	\$110,924	\$14,158	\$267	\$125,349	\$1,415	\$0	\$123,934	\$110,000
	South El Monte	\$106,912	\$31,887	\$189	\$138,987	\$34,078	\$0	\$104,909	\$60,000
	South Gate	\$253,629	\$119,179	\$467	\$373,275	\$116,252	\$4,562	\$252,461	\$132,814
	South Pasadena	\$82,046	\$32,272	\$207	\$114,525	\$466	\$0	\$114,059	\$38,504
	Temple City	\$230,808	\$160,236	\$287	\$391,331	\$0	\$0	\$391,331	\$231,095
	Torrance	\$235,436	\$183,261	\$1,550	\$420,247	\$196,288	\$0	\$223,959	\$235,436
	Walnut	\$82,259	\$37,235	\$583	\$120,076	\$59,536	\$0	\$60,540	\$60,540
	West Covina	\$357,497	\$133,784	\$1,039	\$492,320	\$7,563	\$2,685	\$482,072	\$239,893
	West Hollywood	\$166,200	\$43,324	\$648	\$210,172	\$77,387	\$0	\$132,785	\$7,039
	Westlake Village	\$57,501	\$13,420	\$144	\$71,065	\$6,073	\$0	\$64,992	\$64,990
	Whittier	\$575,109	\$107,369	\$2,577	\$685,055	\$18,320	\$2,771	\$663,964	\$575,109
	<b>County Total:</b>	<b>\$20,629,110</b>	<b>\$12,577,544</b>	<b>\$152,431</b>	<b>\$33,359,084</b>	<b>\$9,988,805</b>	<b>\$176,857</b>	<b>\$23,193,422</b>	<b>\$14,407,700</b>

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.</i>									
	Aliso Viejo	\$741,121	\$61,934	\$1,619	\$804,674	\$27,936	\$0	\$776,738	\$300,000
	Anaheim	\$68,332	\$432,147	\$581	\$501,060	\$334,528	\$1,308	\$165,223	\$75,000
	Brea	\$154,765	\$50,000	\$1,513	\$206,278	\$50,000	\$0	\$156,278	\$154,765
	Buena Park	\$354,509	\$128,567	\$1,409	\$484,485	\$0	\$0	\$484,485	\$286,630
	Costa Mesa	\$607,903	\$138,769	\$1,883	\$748,555	\$371,680	\$0	\$376,875	\$376,875
	County of Orange	\$720,540	\$149,953	\$9,069	\$879,562	\$35,000	\$3,815	\$840,747	\$495,000
	Cypress	\$329,930	\$60,654	\$1,308	\$391,892	\$0	\$0	\$391,892	\$391,892
	Dana Point	\$259,762	\$53,139	\$859	\$313,760	\$0	\$0	\$313,760	\$153,818
	Fountain Valley	\$292,074	\$88,450	\$1,301	\$381,825	\$0	\$828	\$380,997	\$161,000
	Fullerton	\$387,005	\$173,863	\$2,646	\$563,513	\$132,097	\$1,408	\$430,008	\$430,008
	Garden Grove	\$311,991	\$271,584	\$1,880	\$585,455	\$148,101	\$7,983	\$429,371	\$311,991
	Huntington Beach	\$773,336	\$243,179	\$9,397	\$1,025,911	\$227,562	\$9,500	\$788,850	\$683,882
	Irvine	\$950,999	\$300,887	\$7,655	\$1,259,541	\$271,856	\$7,620	\$980,065	\$980,064
	La Habra	\$69,406	\$76,573	\$163	\$146,142	\$83,825	\$0	\$62,317	\$60,000
	La Palma	\$55,466	\$19,722	\$466	\$75,654	\$4,065	\$0	\$71,589	\$40,000
	Laguna Beach	\$0	\$31,557	\$0	\$31,557	\$29,793	\$0	\$1,764	\$0
	Laguna Hills	\$0	\$38,285	\$37	\$38,322	\$7,433	\$0	\$30,889	\$0
	Laguna Niguel	\$288,988	\$79,976	\$2,951	\$371,915	\$31,658	\$0	\$340,257	\$340,257
	Laguna Woods	\$72,298	\$20,572	\$181	\$93,051	\$0	\$0	\$93,051	\$93,051
	Lake Forest	\$920,555	\$98,189	\$2,125	\$1,020,868	\$372,796	\$0	\$648,073	\$437,921
	Los Alamitos	\$25,080	\$14,552	\$105	\$39,737	\$0	\$0	\$39,737	\$39,737
	Mission Viejo	\$195,736	\$115,194	\$281	\$311,211	\$41,076	\$4,096	\$266,039	\$266,039
	Newport Beach	\$650,981	\$107,349	\$6,160	\$764,490	\$6,980	\$0	\$757,510	\$600,000
	Orange (City)	\$120,235	\$172,806	\$482	\$293,523	\$184,011	\$8,640	\$100,872	\$46,000
	Placentia	\$229,737	\$64,594	\$540	\$294,871	\$11,767	\$0	\$283,104	\$205,862
	Rancho Santa Margarita	\$198,998	\$60,589	\$653	\$260,240	\$94,258	\$0	\$165,982	\$99,999
	San Clemente	\$510,455	\$80,490	\$2,988	\$593,933	\$42,049	\$0	\$551,884	\$514,534
	San Juan Capistrano	\$423,571	\$44,542	\$2,413	\$470,526	\$16,502	\$0	\$454,024	\$454,000
	Santa Ana	\$589,408	\$518,144	\$4,555	\$1,112,108	\$210,780	\$0	\$901,328	\$335,500
	Seal Beach	\$0	\$30,510	\$21	\$30,531	\$30,510	\$0	\$21	\$21

County	Local Name	Beginning Balance	Motor Vehicle Fees Received	Interest	Revenue	Project Spending	Admin	Funds	
								Ending Balance	Pre-designated for Future Year
	Stanton	\$93,664	\$60,830	\$465	\$154,959	\$1,700	\$1,776	\$151,483	\$0
	Tustin	\$97,140	\$96,834	\$844	\$194,818	\$0	\$76	\$194,743	\$194,742
	Villa Park	\$19,984	\$7,332	\$29	\$27,345	\$0	\$367	\$26,978	\$27,316
	Westminster	\$390,416	\$113,714	\$3,485	\$507,615	\$87,259	\$5,686	\$414,670	\$414,670
	Yorba Linda	\$823,564	\$83,213	\$5,711	\$912,488	\$8,320	\$4,160	\$900,008	\$66,000
	<b>County Total:</b>	<b>\$11,727,948</b>	<b>\$4,088,695</b>	<b>\$75,774</b>	<b>\$15,892,417</b>	<b>\$2,863,541</b>	<b>\$57,263</b>	<b>\$12,971,613</b>	<b>\$9,036,574</b>
<b>Riverside Co.</b>									
	Banning	\$241,421	\$37,625	\$703	\$279,749	\$3,000	\$0	\$276,749	\$241,421
	Beaumont	\$125,012	\$50,715	\$129	\$175,856	\$0	\$0	\$175,856	\$175,856
	Calimesa	\$35,899	\$10,212	\$62	\$46,173	\$3,000	\$268	\$42,905	\$40,000
	Canyon Lake	\$72,140	\$13,432	\$208	\$85,780	\$0	\$0	\$85,780	\$85,780
	Cathedral City	\$29,184	\$110,153	\$1,535	\$140,872	\$55,716	\$0	\$85,156	\$71,153
	Coachella	\$0	\$53,908	\$111	\$54,018	\$32,482	\$0	\$21,537	\$50,000
	Corona	\$511,923	\$197,437	\$3,100	\$712,460	\$142,574	\$1,059	\$568,828	\$250,000
	County of Riverside	\$170,545	\$448,340	\$413	\$619,298	\$518,077	\$16,637	\$84,584	\$84,584
	Desert Hot Springs	\$31,683	\$34,741	\$9	\$66,433	\$79,875	\$0	(\$13,442)	\$22,558
	Eastvale	\$155,974	\$73,432	\$369	\$229,775	\$97,181	\$0	\$132,594	\$35,000
	Hemet	\$184,015	\$113,149	\$1,784	\$298,948	\$0	\$3,700	\$295,248	\$295,248
	Indian Wells	\$1,645	\$6,374	\$7	\$8,026	\$5,138	\$0	\$2,888	\$5,500
	Indio	\$179,222	\$128,454	\$514	\$308,190	\$61,339	\$3,000	\$243,851	\$160,000
	Jurupa Valley	\$316,488	\$120,807	\$129	\$437,424	\$0	\$0	\$437,424	\$437,300
	La Quinta	\$125,769	\$48,428	\$739	\$174,936	\$29,057	\$0	\$145,879	\$50,000
	Lake Elsinore	\$222,147	\$70,370	\$2,629	\$295,146	\$77,813	\$3,500	\$213,833	\$217,170
	Menifee	\$377,702	\$103,868	\$1,232	\$482,802	\$103,868	\$3,893	\$375,042	\$0
	Moreno Valley	\$115,591	\$246,800	\$99	\$362,490	\$204,140	\$9,574	\$148,776	\$100,000
	Murrieta	\$250,357	\$166,138	\$2,334	\$418,829	\$0	\$3,362	\$415,467	\$91,000
	Norco	\$111,247	\$32,959	\$129	\$144,335	\$47,394	\$1,500	\$95,441	\$92,000
	Palm Desert	\$345,730	\$62,553	\$337	\$408,620	\$307,776	\$0	\$100,844	\$76,291
	Palm Springs	\$55,000	\$57,240	\$0	\$112,240	\$106,686	\$0	\$5,554	\$5,000
	Perris	\$204,019	\$112,321	\$2,017	\$318,357	\$115,940	\$0	\$202,417	\$100,000

County	Local Name	Funds			Revenue	Project Spending	Admin	Ending Balance	Pre-designated for Future Year
		Beginning Balance	Motor Vehicle Fees Received	Interest					
	Rancho Mirage	\$34,416	\$22,016	\$1,385	\$57,817	\$13,210	\$0	\$44,607	\$44,607
	Riverside (City)	\$647,283	\$387,888	\$3,714	\$1,038,885	\$250,145	\$2,439	\$786,301	\$114,619
	San Jacinto	\$135,588	\$56,531	\$643	\$192,762	\$6,000	\$0	\$186,762	\$8,797
	Temecula	\$462,831	\$131,875	\$2,480	\$597,186	\$30,284	\$0	\$566,902	\$566,902
	Wildomar	\$87,504	\$30,857	\$0	\$118,361	\$0	\$1,400	\$116,961	\$116,961
	<b>County Total:</b>	<b>\$5,230,335</b>	<b>\$2,928,623</b>	<b>\$26,812</b>	<b>\$8,185,770</b>	<b>\$2,290,694</b>	<b>\$50,332</b>	<b>\$5,844,745</b>	<b>\$3,537,746</b>
<b>San Bernardino Co.</b>									
	Big Bear Lake	\$34,921	\$8,000	\$96	\$43,017	\$0	\$0	\$43,017	\$34,921
	Chino	\$349,063	\$101,425	\$2,479	\$452,967	\$5,976	\$0	\$446,991	\$0
	Chino Hills	\$180,510	\$94,457	\$2,351	\$277,318	\$0	\$328	\$276,990	\$150,000
	Colton	\$390,709	\$82,889	\$1,295	\$474,893	\$55,981	\$0	\$418,912	\$418,912
	County of San Bernardino	\$174,106	\$287,317	\$2,254	\$463,677	\$313,200	\$14,366	\$136,111	\$150,478
	Fontana	\$923,488	\$250,844	\$14,199	\$1,188,531	\$297,639	\$1,300	\$889,592	\$828,613
	Grand Terrace	\$94,102	\$15,242	\$23	\$109,367	\$59,708	\$0	\$49,659	\$49,659
	Highland	\$475,297	\$67,040	\$757	\$543,094	\$19,715	\$1,968	\$521,411	\$500,000
	Loma Linda	\$80,988	\$29,298	\$190	\$110,476	\$22,555	\$1,465	\$86,456	\$57,500
	Montclair	\$133,236	\$46,370	\$437	\$180,043	\$24,736	\$0	\$155,307	\$45,000
	Ontario	\$914,673	\$207,673	\$6,252	\$1,128,599	\$161,634	\$10,384	\$956,581	\$914,673
	Rancho Cucamonga	\$474,852	\$316,457	\$4,194	\$795,503	\$259,789	\$1,801	\$533,914	\$265,803
	Redlands	\$640,540	\$86,704	\$4,864	\$732,108	\$356,466	\$0	\$375,642	\$287,000
	Rialto	\$183,098	\$125,844	\$1,127	\$310,069	\$76,519	\$6,292	\$227,258	\$227,258
	San Bernardino (City)	\$556,739	\$265,618	\$9,038	\$831,395	\$65,997	\$13,281	\$752,117	\$752,117
	Upland	\$75,066	\$93,236	\$322	\$168,624	\$78,060	\$4,662	\$85,902	\$75,066
	Yucaipa	\$243,471	\$65,329	\$1,351	\$310,151	\$24,979	\$0	\$285,172	\$92,101
	<b>County Total:</b>	<b>\$5,924,860</b>	<b>\$2,143,743</b>	<b>\$51,230</b>	<b>\$8,119,833</b>	<b>\$1,822,954</b>	<b>\$55,846</b>	<b>\$6,241,033</b>	<b>\$4,849,101</b>
	<b>GRAND</b>	<b>\$43,512,253</b>	<b>\$21,738,605</b>	<b>\$306,246</b>	<b>\$65,557,104</b>	<b>\$16,965,994</b>	<b>\$340,298</b>	<b>\$48,250,812</b>	<b>\$31,831,121</b>

Number of Local Governments: 162

## Local Government Administrative Costs

Fiscal Year 2014 - 2015

Local Government	Administrative Costs	Motor Vehicle Revenues	Admin Costs as % of Revenues
Agoura Hills	\$1,200	\$25,590	5%
Alhambra	\$0	\$105,037	0%
Aliso Viejo	\$0	\$61,934	0%
Anaheim	\$1,308	\$432,147	0%
Arcadia	\$0	\$71,341	0%
Artesia	\$0	\$99,997	0%
Azusa	\$2,350	\$77,633	3%
Baldwin Park	\$0	\$70,206	0%
Banning	\$0	\$37,625	0%
Beaumont	\$0	\$50,715	0%
Bell	\$0	\$44,631	0%
Bell Gardens	\$0	\$66,609	0%
Bellflower	\$0	\$96,454	0%
Beverly Hills	\$0	\$42,848	0%
Big Bear Lake	\$0	\$8,000	0%
Brea	\$0	\$50,000	0%
Buena Park	\$0	\$128,567	0%
Burbank	\$0	\$130,949	0%
Calabasas	\$0	\$37,374	0%
Calimesa	\$268	\$10,212	3%
Canyon Lake	\$0	\$13,432	0%
Carson	\$0	\$114,935	0%
Cathedral City	\$0	\$110,153	0%
Cerritos	\$3,074	\$61,488	5%
Chino	\$0	\$101,425	0%
Chino Hills	\$328	\$94,457	0%
Claremont	\$0	\$44,566	0%
Coachella	\$0	\$53,908	0%
Colton	\$0	\$82,889	0%
Commerce	\$0	\$16,133	0%
Compton	\$0	\$266,981	0%
Corona	\$1,059	\$197,437	1%
Costa Mesa	\$0	\$138,769	0%
County of LA	\$0	\$1,296,701	0%
County of Orange	\$3,815	\$149,953	3%
County of Riverside	\$16,637	\$448,340	4%
County of San Bernardino	\$14,366	\$287,317	5%
Covina	\$2,950	\$60,322	5%
Cudahy	\$0	\$29,953	0%
Culver City	\$0	\$50,175	0%
Cypress	\$0	\$60,654	0%
Dana Point	\$0	\$53,139	0%
Desert Hot Springs	\$0	\$34,741	0%
Diamond Bar	\$0	\$69,976	0%
Downey	\$7,324	\$176,978	4%
Duarte	\$1,341	\$26,882	5%
Eastvale	\$0	\$73,432	0%
El Monte	\$0	\$142,762	0%
El Segundo	\$0	\$20,877	0%
Fontana	\$1,300	\$250,844	1%
Fountain Valley	\$828	\$88,450	1%
Fullerton	\$1,408	\$173,863	1%
Garden Grove	\$7,983	\$271,584	3%

<b>Local Government</b>	<b>Administrative Costs</b>	<b>Motor Vehicle Revenues</b>	<b>Admin Costs as % of Revenues</b>
Gardena	\$3,727	\$74,545	5%
Glendale	\$0	\$242,931	0%
Glendora	\$3,348	\$63,636	5%
Grand Terrace	\$0	\$15,242	0%
Hawaiian Gardens	\$48	\$17,936	0%
Hawthorne	\$840	\$107,501	1%
Hemet	\$3,700	\$113,149	3%
Hermosa Beach	\$0	\$24,504	0%
Hidden Hills	\$0	\$2,348	0%
Highland	\$1,968	\$67,040	3%
Huntington Beach	\$9,500	\$243,179	4%
Huntington Park	\$957	\$99,703	1%
Indian Wells	\$0	\$6,374	0%
Indio	\$3,000	\$128,454	2%
Inglewood	\$0	\$138,706	0%
Irvine	\$7,620	\$300,887	3%
Irwindale	\$0	\$1,819	0%
Jurupa Valley	\$0	\$120,807	0%
La Canada Flintridge	\$0	\$32,063	0%
La Habra	\$0	\$76,573	0%
La Habra Heights	\$0	\$6,725	0%
La Mirada	\$0	\$76,779	0%
La Palma	\$0	\$19,722	0%
La Puente	\$0	\$50,222	0%
La Quinta	\$0	\$48,428	0%
La Verne	\$1,710	\$50,308	3%
Laguna Beach	\$0	\$31,557	0%
Laguna Hills	\$0	\$38,285	0%
Laguna Niguel	\$0	\$79,976	0%
Laguna Woods	\$0	\$20,572	0%
Lake Elsinore	\$3,500	\$70,370	5%
Lake Forest	\$0	\$98,189	0%
Lakewood	\$4,569	\$100,776	5%
Lawndale	\$0	\$41,226	0%
Loma Linda	\$1,465	\$29,298	5%
Lomita	\$1,610	\$32,205	5%
Long Beach	\$1,313	\$583,498	0%
Los Alamitos	\$0	\$14,552	0%
Los Angeles (City)	\$89,918	\$4,826,351	2%
Lynwood	\$0	\$110,825	0%
Malibu	\$0	\$15,962	0%
Manhattan Beach	\$1,757	\$55,605	3%
Maywood	\$0	\$34,440	0%
Menifee	\$3,893	\$103,868	4%
Mission Viejo	\$4,096	\$115,194	4%
Monrovia	\$0	\$58,009	0%
Montclair	\$0	\$46,370	0%
Montebello	\$3,913	\$78,819	5%
Monterey Park	\$0	\$76,330	0%
Moreno Valley	\$9,574	\$246,800	4%
Murrieta	\$3,362	\$166,138	2%
Newport Beach	\$0	\$107,349	0%
Norco	\$1,500	\$32,959	5%
Norwalk	\$0	\$132,297	0%
Ontario	\$10,384	\$207,673	5%
Orange (City)	\$8,640	\$172,806	5%
Palm Desert	\$0	\$62,553	0%

<b>Local Government</b>	<b>Administrative Costs</b>	<b>Motor Vehicle Revenues</b>	<b>Admin Costs as % of Revenues</b>
Palm Springs	\$0	\$57,240	0%
Palos Verdes Estates	\$0	\$16,954	0%
Paramount	\$3,350	\$68,303	5%
Pasadena	\$0	\$174,690	0%
Perris	\$0	\$112,321	0%
Pico Rivera	\$3,962	\$79,248	5%
Placentia	\$0	\$64,594	0%
Pomona	\$9,408	\$188,710	5%
Rancho Cucamonga	\$1,801	\$316,457	1%
Rancho Mirage	\$0	\$22,016	0%
Rancho Palos Verdes	\$0	\$66,122	0%
Rancho Santa Margarita	\$0	\$60,589	0%
Redlands	\$0	\$86,704	0%
Redondo Beach	\$4,383	\$84,017	5%
Rialto	\$6,292	\$125,844	5%
Riverside (City)	\$2,439	\$387,888	1%
Rolling Hills Estates	\$0	\$12,777	0%
Rosemead	\$0	\$67,672	0%
San Bernardino (City)	\$13,281	\$265,618	5%
San Clemente	\$0	\$80,490	0%
San Dimas	\$2,114	\$42,274	5%
San Fernando	\$0	\$30,053	0%
San Gabriel	\$0	\$62,953	0%
San Jacinto	\$0	\$56,531	0%
San Juan Capistrano	\$0	\$44,542	0%
San Marino	\$0	\$16,476	0%
Santa Ana	\$0	\$518,144	0%
Santa Clarita	\$6,081	\$258,386	2%
Santa Fe Springs	\$0	\$21,525	0%
Santa Monica	\$5,591	\$114,305	5%
Seal Beach	\$0	\$30,510	0%
Sierra Madre	\$0	\$13,488	0%
Signal Hill	\$0	\$14,158	0%
South El Monte	\$0	\$31,887	0%
South Gate	\$4,562	\$119,179	4%
South Pasadena	\$0	\$32,272	0%
Stanton	\$1,776	\$60,830	3%
Temecula	\$0	\$131,875	0%
Temple City	\$0	\$160,236	0%
Torrance	\$0	\$183,261	0%
Tustin	\$76	\$96,834	0%
Upland	\$4,662	\$93,236	5%
Villa Park	\$367	\$7,332	5%
Walnut	\$0	\$37,235	0%
West Covina	\$2,685	\$133,784	2%
West Hollywood	\$0	\$43,324	0%
Westlake Village	\$0	\$13,420	0%
Westminster	\$5,686	\$113,714	5%
Whittier	\$2,771	\$107,369	3%
Wildomar	\$1,400	\$30,857	5%
Yorba Linda	\$4,160	\$83,213	5%
Yucaipa	\$0	\$65,329	0%



<b>Project Category</b>	<b>Project Subcategory</b>	<b>Project Name</b>	<b>Motor Vehicle Expenditures</b>
(1a) Alternative Fuel Vehicle Purchases			
Perris		Public Works Fleet Vehicle Replacement	\$115,940
Pico Rivera		Purchase of 2 hybrid vehicles (2014 Toyota Prius C)	\$39,965
Pico Rivera		Lease of 6 hybrid vehicles (2014 Toyota Prius C)	\$10,492
Pomona		CNG Trash Trucks Lease Payment (22)	\$85,000
Redlands		Rideshare Van Replacement	\$90,234
Redlands		Solid Waste Vehicles	\$90,000
San Gabriel		Alternative Fueled/Electric Vehicle Purchase	\$50,010
Santa Ana		Senior Mobility Bus Purchase - Match	\$20,875
South El Monte		Alternative Fuel Vehicles	\$26,393
South Gate		Alternative fuel/ Electric Utility Vehicle # 726	\$26,801
South Gate		Alternative fuel/Electric Vehicle # 727	\$26,801
South Gate		Alternative Fuel/ Electric Vehicle # 728	\$26,801
South Gate		Alternative Fuel Vehicle Lease	\$22,583
Upland		Vehicle Purchase	\$63,254
<b>Subcategory Total</b>			<b>\$2,615,240</b>
(1b) Alternative Fuel Vehicle Conversions			
Irvine		CNG Trucks Conversion	\$40,000
<b>Subcategory Total</b>			<b>\$40,000</b>
(1c) Alternative Fuel Infrastructure (refueling, etc.)			
Corona		Purchase and installation of CNG fuel dispenser	\$57,812
El Monte		Fuel Cost for Alternative Fuel Vehicle	\$1,068
El Monte		Fuel Cost for Alternative Fuel Vehicle	\$5
Fullerton		CNG Station Upgrades	\$25,548
Lakewood		CNG Compressor Replacement	\$42,558
Los Angeles (City)		N. Hollywood Fleet Maintenance Alt Fuel Facility Upgrade	\$1,518,247
Los Angeles (City)		BOE Alt Fuel Infrastructure Eng. Design and Tech Support	\$171,562
Monterey Park		CNG Upgraded Station	\$18,120
Ontario		Fleet Shop Upgrades	\$100,776
Rancho Cucamonga		CNG Fuel Station Expansion	\$200,246
Redlands		LCNG Station Expansion	\$157,903
Westlake Village		Hybrid Vehicle Fuel Purchase	\$6,073
<b>Subcategory Total</b>			<b>\$2,299,917</b>
(1d) Electric Vehicle Purchases			
Claremont		Electric Vehicle Purchase for PD	\$31,332
Culver City		Purchase of Two (2) Electric Vehicles	\$74,078
Huntington Beach		Electric Forklift	\$42,417
Huntington Park		Alternative Fuel Vehicles	\$10,551
Lake Forest		Electric Golf Carts	\$23,814
Norco		Electric shuttle	\$23,697
Norco		Electric shuttle	\$23,697
Palm Springs		Super Ultra Low Emissions Vehicle Purchase -2 Volts	\$64,231
Riverside (City)		Electric Vehicle Rebate Program	\$2,500
San Dimas		Electric Vehicle Leases	\$6,867
Santa Ana		Electric Vehicle Lease (2)	\$11,051
Santa Monica		Electric Vehicle Purchases	\$20,000
Santa Monica		Hydrogen Powered Vehicle Lease	\$3,971
South Gate		Alternative electrical Utility Vehicle	\$10,618
<b>Subcategory Total</b>			<b>\$348,824</b>

<b>Project Category</b>	<b>Project Subcategory</b>	<b>Project Name</b>	<b>Motor Vehicle Expenditures</b>
(1f) Electric Veh Infrastructure			
La Habra Heights	EV Charging Station		\$2,702
Lake Elsinore	Electric Vehicle Charging Stations		\$56,700
Ontario	EV Charging Station		\$29,368
Orange (City)	Electric Car Charging Stations		\$15,084
Palm Desert	Palm Desert Community EV Infrastructure Project		\$129,713
Rosemead	Purchase charging station		\$22,693
San Dimas	Charging Station Fuel Usage		\$3,666
Santa Monica	Electric Vehicle Chargers		\$1,661
Torrance	Electric Vehicle Charging Infrastructure		\$49,639
<b>Subcategory Total</b>			<b>\$311,226</b>
(1g) Mechanic Training, Veh Oper (Non-transit fuel subsidies)			
Lakewood	CNG Tank Replacement		\$26,709
<b>Subcategory Total</b>			<b>\$26,709</b>
<b>Category Total</b>			<b>\$5,641,917</b>
<b>(2) Vehicle Emissions Abatement</b>			
(2c) Old Vehicle Scrappage			
Riverside (City)	AQMD Rule 2202 Compliance		\$26,730
<b>Subcategory Total</b>			<b>\$26,730</b>
(2d) On-road CARB-verified Diesel Emission Control Systems--VDECS			
Pomona	Particulate Filter Retrofit Exhaust Unit 26301		\$8,820
<b>Subcategory Total</b>			<b>\$8,820</b>
<b>Category Total</b>			<b>\$35,550</b>
<b>(3) Land Use</b>			
(3a) Plan Elements			
Bell Gardens	I-710 Corridor Project		\$6,609
Mission Viejo	City of Mission Viejo Air Quality Planning: FY14-15		\$41,076
Pico Rivera	Development of Strategic Transportation Plans		\$8,101
Santa Ana	Downtown Complete Streets Plan		\$13,563
Santa Ana	City Climate Action Plan		\$12,214
Santa Ana	General Plan Circulation Element		\$12,169
Santa Ana	General Plan Land Use Designations		\$11,901
Santa Ana	OCTA Harbor Fixed Guideway Feasibility Study		\$8,460
<b>Subcategory Total</b>			<b>\$114,093</b>
(3b) Development Guidelines			
Lakewood	Gateway Cities COG 91/605 Corridor Study		\$10,077
Los Angeles (City)	Mobility Hubs needs assessment and planning work		\$1,029,137
Los Angeles (City)	EV Infrastructure and Sustainability Plan		\$43,349
Norwalk	I5 Consortium Cities JPA		\$7,000
<b>Subcategory Total</b>			<b>\$1,089,563</b>
(3c) Facilities (Pedestrian, mixed use, etc.)			
Cerritos	Architectural Design Services for Fixed-Route Bus Stops		\$3,000
Fontana	Sawtooth/Concrete Improvements		\$197,519
Long Beach	TI FWY EJ Grant Match		\$7,216
West Hollywood	Bicycle and Pedestrian Mobility Plan		\$3,151
Yucaipa	Avenue E Street Curb, Gutter, Sidewalk		\$12,490
Yucaipa	12th and 13th Streets Curb, Gutter, Sidewalk		\$12,489
<b>Subcategory Total</b>			<b>\$235,865</b>
(3d) Land Use Research			
County of LA	Clean Air Plan Implementation		\$20,000
<b>Subcategory Total</b>			<b>\$20,000</b>
<b>Category Total</b>			<b>\$1,459,521</b>

<b>Project Category</b>	<b>Project Subcategory</b>	<b>Project Name</b>	<b>Motor Vehicle Expenditures</b>
<b>(4) Public Transportation (Transit &amp; Rail)</b>			
(4a) Public Transportation Facilities (multi-modal, shelters)			
Anaheim		Anaheim Canyon Metrolink Platform Improvements	\$1,603
Beverly Hills		Bus Stop Improvements	\$21,582
Fontana		Fire Station 73 bus shelter	\$66,098
Laguna Niguel		Laguna Niguel/Mission Viejo Metrolink Station	\$10,015
Redlands		Bus Pad Improvements	\$18,329
<b>Subcategory Total</b>			<b>\$117,627</b>
(4c) Transit Operations (new service, shuttles, fuel subsidies)			
Anaheim		ART Shuttle - Route 17	\$50,204
Huntington Beach		4th of July/US Open Shuttle Service	\$22,000
Rancho Palos Verdes		Public Transit/Fixed Route Shuttle Service	\$58,849
Rancho Palos Verdes		Public Transit/Fixed Route Shuttle Service	\$7,273
San Juan Capistrano		Trolley Program	\$7,971
Seal Beach		Orange County Senior Transportation Program	\$30,510
Temecula		Route 55 Temecula Trolley Services	\$17,049
<b>Subcategory Total</b>			<b>\$193,856</b>
(4d) Passenger Fare Subsidies			
Anaheim		Metrolink OCTA	\$98,969
Azusa		Transit Pass Subsidy	\$14,488
Corona		Corona Cruiser Passenger Fare Subsidy	\$17,416
Covina		Commuter Choice Reimbursement Program	\$5,929
Garden Grove		Transit Subsidy Program (Metrolink & Bus)	\$10,166
Glendora		Altcom - Public Transit Component	\$425
Laguna Beach		Free Mainline Service during the Summer	\$18,468
Laguna Beach		Free Ride to Work Program	\$11,325
Monrovia		Discount Bus Pass Program	\$4,742
Norwalk		Employee Commuter Program	\$30,000
Riverside (City)		Riverside Go Transit Bus Pass Subsidy Program	\$82,846
Riverside (City)		City Pass Program	\$16,949
South El Monte		Bus Pass Subsidy Program	\$7,685
South Pasadena		Employer Rideshare Program	\$466
Walnut		Bus Pass Subsidies	\$8,676
<b>Subcategory Total</b>			<b>\$328,550</b>
<b>Category Total</b>			<b>\$640,033</b>
<b>(5) Traffic Management</b>			
(5a) Traffic Calming			
Costa Mesa		East 19th Safe Route to School Project	\$2,124
Diamond Bar		Neighborhood Traffic Management Program (NTMP)	\$29,366
Rancho Santa Margarita		Speed Feedback Signs	\$27,172
San Clemente		North Beach Traffic Calming and Pedestrian	\$40,593
San Clemente		Traffic Calming – Esplanade Bulb-out	\$1,456
San Juan Capistrano		Neighborhood Traffic Calming Project	\$430
West Hollywood		Traffic Calming Design Program	\$1,600
<b>Subcategory Total</b>			<b>\$102,741</b>

<b>Project Category</b>	<b>Project Subcategory</b>	<b>Project Name</b>	<b>Motor Vehicle Expenditures</b>
(5b) Traffic Flow or Signalization (timing, surveillance)			
Artesia		Traffic Signal Upgrade	\$2,000
Costa Mesa		East 17th Street Intersection Improvements	\$150,000
Costa Mesa		West 19th St. Pedestrian Improvements	\$102,786
Costa Mesa		Fairview Rd. Traffic Signal Synchronization Project	\$27,104
Costa Mesa		Sunflower Ave. & Anton Blvd. Signal Improvements	\$19,206
Costa Mesa		Baker St./Placentia Ave. Traffic Signal Sync. Project	\$18,899
Costa Mesa		Victoria St. and Valley Rd. Improvements	\$6,394
Costa Mesa		Harbor Blvd. Widening	\$6,057
Costa Mesa		Victoria St. Traffic Signal Synchronization Project	\$4,825
Costa Mesa		17th St. Traffic Signal Synchronization Project	\$3,061
Eastvale		Limonite Traffic Signal Synchronization	\$35,858
Highland		Signal Synchronization	\$19,715
Laguna Hills		El Toro/Ridge Route Rubberized Pavement	\$7,433
Laguna Niguel		Traffic Signal Coordination	\$21,643
Lake Elsinore		Citywide Traffic Signal Coordination Program	\$13,535
Lake Elsinore		Mission Trail Traffic Signal Synchronization	\$1,578
Lake Forest		Citywide Traffic Signal Coordination Master Plan	\$142,647
Lake Forest		Rancho and Sports Park Intersection Signal	\$122,178
Lake Forest		Prof Serv-Traffic Engineer for Traffic Signal Monitoring	\$58,532
Lake Forest		Trabuco Road Traffic Signal Synchronization	\$7,907
Lake Forest		Jeronimo Traffic Signal Synchronization	\$5,485
Lake Forest		Barranca/Muirlands Traffic Signal Synchronization	\$3,335
Lake Forest		Signal Maintenance Centracs Software	\$3,276
Lake Forest		Alton Parkway Traffic Signal Synchronization	\$2,031
Lake Forest		Santa Margarita Pkwy Traffic Signal Synchronization	\$1,310
Lake Forest		Bake Parkway Traffic Signal Synchronization	\$1,226
Lake Forest		Lake Forest Drive Traffic Signal Synchronization	\$815
Lake Forest		Los Alisos Blvd Traffic Signal Synchronization	\$240
Lakewood		Truck-Impacted Intersection Project	\$4,800
Loma Linda		Signal Coordination	\$6,255
Moreno Valley		Traffic Signal Coordination Program	\$10,774
Placentia		Placentia Ave & Kraemer Blvd Signal Coordination	\$11,767
Riverside (City)		Riverside Traffic Management Center	\$27,233
San Juan Capistrano		Regional Traffic Signal Synchronization	\$638
<b>Subcategory Total</b>			<b>\$850,544</b>
(5c) Alternate Mode Signalization (transit/bike pre-emption)			
Artesia		Flashing Beacons	\$641
Costa Mesa		Placentia Ave. & 20th St. Flashing Crosswalk	\$16,248
Rancho Santa Margarita		Countdown Pedestrian Signal Heads	\$42,860
Rancho Santa Margarita		Crosswalk LED Signs	\$24,226
San Juan Capistrano		Countdown Pedestrian Signals Project	\$436
<b>Subcategory Total</b>			<b>\$84,411</b>
(5d) Traffic Management Research and Dev			
Huntington Beach		Traffic Counts	\$1,450
<b>Subcategory Total</b>			<b>\$1,450</b>
<b>Category Total</b>			<b>\$1,039,146</b>

Project Category	Project Subcategory	Project Name	Motor Vehicle Expenditures
<b>(6) Transportation Demand Management</b>			
(6a) Employer-Based Trip Reduction			
Alhambra		SCAQMD Rule 2202 Compliance	\$123
Anaheim		Trip Reduction Program	\$65,479
Arcadia		Rideshare Plus Program	\$19,322
Azusa		Rideshare Financial Incentives	\$10,336
Baldwin Park		Employee Transportation Program	\$2,635
Bell Gardens		Alternative Transportation Program	\$69
Burbank		Burbank Commuter Program	\$130,657
Carson		Breathe-Employee Rideshare Program	\$19,210
Cerritos		Employee Rideshare Trip Rebate Program	\$34,436
Chino		Participation in the Air Quality Investment Program	\$5,976
Claremont		Employees Using Public Transportation- 2 Employees	\$1,939
Commerce		Employer Based Trip Reduction	\$16,133
Compton		Employee Commute Reduction Program (Rideshare)	\$65,045
Corona		City of Corona Carpool Program (12 vehicles)	\$19,374
Costa Mesa		Rule 2202 Implementation	\$4,390
County of LA		Countywide Trip Reduction Services/Outreach	\$404,073
County of Orange		Employee Rideshare Program	\$35,000
County of Riverside		Commuter Services Program	\$226,322
County of San Bernardino		Employee Commute Reduction Program	\$283,100
Covina		Commuter Rideshare Program	\$1,917
Downey		Downey Employees "Thumbs Up" Commuting Program	\$112,823
El Monte		Monthly Rideshare Incentives	\$52,352
El Monte		Rule 2202 Filing Fees	\$762
Fontana		City of Fontana Rule 2202 Rideshare Compliance Activities	\$8,152
Garden Grove		TDM Services	\$44,419
Glendale		Employer Based Trip Reduction Program	\$242,931
Glendora		Altcom - Carpool Component	\$6,296
Glendora		Altcom - Walking Component	\$3,281
Glendora		Altcom - Bicycle Component	\$2,180
Hawthorne		Rideshare Incentives	\$2,290
Huntington Beach		Employee Rideshare program	\$24,321
Irvine		Rule 2202 Credit	\$7,442
Irvine		Irvine Spectrum Transportation Management Association	\$3,556
La Verne		Bike, Carpool, Walk, Incentive Program	\$10,258
Long Beach		Rule 2202/AVR Compliance	\$1,364
Los Angeles (City)		Employee Vanpool Program	\$589,891
Los Angeles (City)		Employee transit subsidy	\$384,781
Los Angeles (City)		Carpool Program	\$135,124
Los Angeles (City)		Bicycle Transit Incentive Program	\$32,739
Los Angeles (City)		Walk Subsidy Program	\$22,307
Manhattan Beach		Employee Rideshare Program	\$8,880
Monrovia		Employer Commute Reduction Program (ECRP)	\$4,662
Montclair		Rideshare Program	\$24,736
Montebello		Employee Commute Reduction Program	\$43,998
Monterey Park		Employee Transportation Program	\$16,737
Monterey Park		Rule 2202 Compliance Emission Credit Purchase	\$3,200
Monterey Park		Rule 2202 Compliance	\$535
Newport Beach		Employee Rideshare Program	\$6,980
Ontario		Rideshare	\$31,490
Orange (City)		Trip Reduction Program	\$161,365
Palm Desert		City Rideshare Program	\$1,231
Palm Springs		Ride Share Incentive Program	\$7,911
Pasadena		Prideshare	\$86,905
Rancho Cucamonga		Employer Ride Share Program	\$18,793
Redondo Beach		Employee Rideshare	\$63,613

<b>Project Category</b>	<b>Project Subcategory</b>	<b>Project Name</b>	<b>Motor Vehicle Expenditures</b>
<b>(6a) Employer-Based Trip Reduction (cont'd)</b>			
Rialto	Rideshare Program		\$76,519
San Bernardino (City)	Employee Rideshare Program		\$65,997
Santa Ana	Blue skies Ride Share Program		\$104,301
Santa Clarita	RideShare		\$5,726
South Gate	Employer Rideshare Program		\$2,648
Stanton	Alternative Commute Incentive		\$1,700
Torrance	Employee Trip Reduction		\$146,649
Upland	Rideshare Activities		\$14,806
West Hollywood	Alternative Transportation Program		\$52,174
Westminster	Rideshare Program		\$19,259
Whittier	Employee Rideshare		\$4,490
Whittier	Air Quality Investment Program		\$2,333
<b>Subcategory Total</b>			<b>\$4,010,442</b>
<b>(6b) Other Trip Reduction Incentive Programs</b>			
Duarte	Transit Connect		\$3,730
Hermosa Beach	AQMD Incentive to Reduce Auto Trips		\$2,370
Palm Springs	Incentive for Ride Share Survey		\$200
San Juan Capistrano	Senior Nutritional Program Transportation		\$7,027
<b>Subcategory Total</b>			<b>\$13,327</b>
<b>(6c) Vanpool Programs</b>			
Anaheim	Vanpool Program		\$90,100
County of San Bernardino	Vanpool Subsidy Program		\$30,100
Garden Grove	Vanpool Program Conventional Gasoline		\$51,360
Garden Grove	CNG Vanpool Program		\$38,520
La Habra	Shuttles to transport Seniors		\$83,825
Westminster	Vanpool Program		\$68,000
<b>Subcategory Total</b>			<b>\$361,905</b>
<b>(6d) Park and Ride Lots (for carpools, transit)</b>			
Irvine	Irvine Station		\$167,122
<b>Subcategory Total</b>			<b>\$167,122</b>
<b>(6e) Telecommunication</b>			
Agoura Hills	Video Conferencing Equipment Rec/Event Ctr.		\$60,000
County of Riverside	Video Conferencing		\$76,310
Fullerton	Wireless Connectivity for Field Employees		\$1,498
Norwalk	iPad Work Order System		\$5,223
West Covina	Website Design & Development		\$2,400
<b>Subcategory Total</b>			<b>\$145,431</b>
<b>Category Total</b>			<b>\$4,698,227</b>
<b>(8) Bicycles</b>			
<b>(8a) Bicycle Lanes and Trails (also bridges)</b>			
Brea	The Tracks at Brea Trail Segment 2-3		\$50,000
Huntington Beach	Bike Corridor Improvements		\$47,527
Riverside (City)	Santa Ana River Bike Trail at Martha McClean Park		\$14,001
Temecula	Pedestrian Bicycle Bridge		\$3,235
<b>Subcategory Total</b>			<b>\$114,763</b>
<b>(8b) Other Bicycle Facilities (racks, lockers, loop detectors)</b>			
Anaheim	ARTIC Metrolink Station Removal of Lockers		\$4,068
Beverly Hills	Bicycle Racks		\$14,272
Costa Mesa	Install Bicycle Racks at City Facilities		\$825
Fullerton	Bike Rack Purchase/Installation		\$1,968
Long Beach	Bike Share Phase II		\$183
Los Angeles (City)	Bike Share Program and Bike Repair Stations		\$50,926
Rancho Cucamonga	Bike Lockers Installation		\$40,749
San Marino	Purchase of Bike Racks.		\$1,703
<b>Subcategory Total</b>			<b>\$114,694</b>

<b>Project Category</b>	<b>Project Subcategory</b>	<b>Project Name</b>	<b>Motor Vehicle Expenditures</b>
(8c) Bicycle Usage (electric bikes, purchases, loaner projects)			
Garden Grove	Bicycle Loan Program		\$3,636
Los Angeles (City)	LAPD Bicycle Patrol Bike Purchase Program		\$69,453
Orange (City)	Orange Police Bike Team		\$6,360
Orange (City)	Bike Loan to Own Program		\$1,202
Santa Clarita	Bike to Work/Santa Clarita		\$150
West Hollywood	Employee Bike Share Program		\$20,463
<b>Subcategory Total</b>			<b>\$101,263</b>
(8d) Bicycle Research and Dev (engineering studies)			
Fullerton	Bike Blvd. Pilot Program		\$1,520
<b>Subcategory Total</b>			<b>\$1,520</b>
<b>Category Total</b>			<b>\$332,240</b>
<b>(9) PM Reduction Strategies</b>			
(9a) Road Dust Control (paving roads, shoulders, street sweeping)			
Cathedral City	Regional PM10 Street Sweeping Program		\$39,153
Coachella	CVAG Regional PM10 Street Sweeping Program		\$32,482
Colton	Citywide Street Sweeping		\$55,981
County of Riverside	Regional PM10 Street Sweeping Program		\$37,045
Desert Hot Springs	Street Sweeping Program - Clean Street		\$59,030
Desert Hot Springs	Regional PM10 Street Sweeping Program		\$20,845
Hawthorne	Street Sweeping contract		\$100,000
Indian Wells	CVAG Regional PM10 Street Sweeping Program		\$3,803
Indio	Regional PM10 Street Sweeping Program		\$61,339
Irvine	CNG Sweeper Conversion		\$40,000
La Quinta	Regional PM10 Street Sweeping Program		\$29,057
Loma Linda	City Street Sweeping Program		\$16,300
Lomita	CNG Street Sweeping Services		\$15,000
Moreno Valley	Street Sweeping Program		\$178,366
Norwalk	Cleaner Street Sweeping Contract		\$87,564
Palm Desert	PM10 Mitigation		\$139,299
Palm Desert	Regional PM10 Street Sweeping Program		\$37,532
Palm Springs	CVAG Street Sweeping Program		\$34,344
Rancho Mirage	Regional PM10 Street Sweeping Program		\$13,210
Walnut	Street Sweeping with CNG Sweeper		\$50,860
<b>Subcategory Total</b>			<b>\$1,051,210</b>
<b>Category Total</b>			<b>\$1,051,210</b>
<b>(10) Public Education</b>			
(10a) Short Term PE (promote transit, rideshare; conferences)			
Anaheim	Rideshare Outreach		\$24,105
Costa Mesa	Bicycle Safety Education at Sixteen Schools		\$9,760
Huntington Park	Bicycle Grand Prix		\$9,970
Los Angeles (City)	Air Quality Education and CicLAvia		\$145,364
Pasadena	CicLAvia		\$11,505
Santa Clarita	Bike to Work Promotional Costs		\$3,855
Santa Clarita	Promotion Rideshare Program		\$969
<b>Subcategory Total</b>			<b>\$205,529</b>
(10b) Long Term PE (curriculum, video, brochures, bilingual)			
Burbank	Arroyo Verdugo Commute Manager Program		\$12,500
Cathedral City	Public Education		\$16,563
Santa Monica	Public Education - AltCar Expo		\$10,000
<b>Subcategory Total</b>			<b>\$39,063</b>
<b>Category Total</b>			<b>\$244,592</b>

<b>Project Category</b>	<b>Project Subcategory</b>	<b>Project Name</b>	<b>Motor Vehicle Expenditures</b>
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**(11) Miscellaneous Projects**

(11a) Miscellaneous (use with "Miscellaneous Projects" Category)

Banning		WRCOG Clean Cities	\$3,000
Bell		EIR/EIS for I-710 Corridor	\$4,463
Bell Gardens		Gateway Cities Strategic Transportation Plan	\$11,391
Calimesa		WRCOG Clean Cities Activities	\$3,000
Corona		Western Riverside Council of Gov. Clean Cities Coalition	\$6,000
County of Riverside		Purchase of Mobile Source Emission Reduction Credits	\$123,403
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	\$9,627
County of Riverside		Audit of AB2766 Revenue and Expense	\$5,370
Eastvale		WRCOG Clean Cities Coalition	\$6,000
El Monte		CNG Station Card Reader Expenses	\$2,773
Fontana		San Sevaine Trail	\$19,370
Fullerton		Electronic Plan Check System	\$46,198
Fullerton		Rule 2202 Emission Credits	\$22,164
Hawaiian Gardens		Gateway Cities COG Transportation Planning	\$1,773
Huntington Beach		Emission credits and rule 2202 filing	\$12,443
Irvine		San Diego Creek Trail Lights Implementation	\$13,736
LA Mirada		I-5 Mitigation Project	\$7,678
La Palma		Trip Reduction	\$4,065
Lake Elsinore		Clean Cities Coalition (WRCOG)	\$6,000
Long Beach		Gateway Cities COG - Major Corridor Study	\$16,100
Los Angeles (City)		ATSAC Control Center	\$1,170,385
Los Angeles (City)		Green Taxi Program	\$50,926
Los Angeles (City)		Alternative Commute/Car Sharing Program Development	\$50,926
Los Angeles (City)		AB2766 Annual Audit Fund	\$13,842
Moreno Valley		WRCOG - Clean Cities Coalition	\$15,000
Norwalk		AB 2766 Audit Expenses	\$2,500
Pomona		San Gabriel Valley - Mobility Matrix - SGVCOG	\$13,500
Pomona		Rule 2202 Emission Credits Purchase	\$3,400
Riverside (City)		Project Dox	\$54,886
Riverside (City)		Clean Cities Coalition	\$25,000
San Jacinto		WRCOG Clean Cities Coalition Activities	\$6,000
Santa Ana		Purchase of GPS systems	\$16,246
Signal Hill		Gateway Cities Trans Assessment	\$1,415
Temecula		Clean Cities Coalition Air Quality	\$10,000
West Covina		Air Quality Investment Program (AQIP)	\$5,163
Whittier		Gateway Cities COG	\$11,497
Yorba Linda		Eagle Aerial - GIS Supplement	\$8,320

**Subcategory Total** **\$1,823,559**

**Category Total** **\$1,823,559**

**GRAND TOTAL:** **\$16,965,994**

## Percent of Project Expenditures by Project Category

Fiscal Year 2014 - 2015

Project Category	Project Expenditures	Percent of Total Project Expenditures	Number of Projects
(1) Alternative Fuels/Electric Vehicles	\$5,641,917	33%	102
(6) Transportation Demand Management	\$4,698,227	28%	83
(11) Miscellaneous Projects	\$1,823,559	11%	39
(3) Land Use	\$1,459,521	9%	19
(9) PM Reduction Strategies	\$1,051,210	6%	20
(5) Traffic Management	\$1,039,146	6%	47
(4) Public Transportation (Transit & Rail)	\$640,033	4%	27
(8) Bicycles	\$332,240	2%	19
(10) Public Education	\$244,592	1%	10
(2) Vehicle Emissions Abatement	\$35,550	0%	2
	<b>\$16,965,994</b>	<b>100%</b>	<b>368</b>

## Summary of Spending by Project SubCategory

Fiscal Year 2014 - 2015

Subcategory	Category	Expenditures by Subcategory	Number of Projects
<b>(1) Alternative Fuels/Electric Vehicles</b>			
(1a)	Alternative Fuel Vehicle Purchases	\$2,615,240	65
(1b)	Alternative Fuel Vehicle Conversions	\$40,000	1
(1c)	Alternative Fuel Infrastructure (refueling, etc.)	\$2,299,917	12
(1d)	Electric Vehicle Purchases	\$348,824	14
(1f)	Electric Vehicle Infrastructure	\$311,226	9
(1g)	Mechanic Training, Vehicle Operations (Non-transit fuel subsidies)	\$26,709	1
<b>(2) Vehicle Emissions Abatement</b>			
(2c)	Old Vehicle Scrappage	\$26,730	1
(2d)	On-road CARB-verified Diesel Emission Control Systems--	\$8,820	1
<b>(3) Land Use</b>			
(3a)	Plan Elements	\$114,093	8
(3b)	Development Guidelines	\$1,089,563	4
(3c)	Facilities (Pedestrian, mixed use, etc.)	\$235,865	6
(3d)	Land Use Research	\$20,000	1
<b>(4) Public Transportation (Transit &amp; Rail)</b>			
(4a)	Public Transportation Facilities (multi-modal, shelters)	\$117,627	5
(4c)	Transit Operations (new service, shuttles, fuel subsidies)	\$193,856	7
(4d)	Passenger Fare Subsidies	\$328,550	15
<b>(5) Traffic Management</b>			
(5a)	Traffic Calming	\$102,741	7
(5b)	Traffic Flow or Signalization (timing, surveillance)	\$850,544	34
(5c)	Alternate Mode Signalization (transit/bike pre-emption)	\$84,411	5
(5d)	Traffic Management Research and Development	\$1,450	1
<b>(6) Transportation Demand Management</b>			
(6a)	Employer-Based Trip Reduction	\$4,010,442	67
(6b)	Other Trip Reduction Incentive Programs	\$13,327	4
(6c)	Vanpool Programs	\$361,905	6
(6d)	Park and Ride Lots (for carpools, transit)	\$167,122	1
(6e)	Telecommunication	\$145,431	5
<b>(8) Bicycles</b>			
(8a)	Bicycle Lanes and Trails (also bridges)	\$114,763	4
(8b)	Other Bicycle Facilities (racks, lockers, loop detectors)	\$114,694	8
(8c)	Bicycle Usage (electric bikes, purchases, loaner projects)	\$101,263	6
(8d)	Bicycle Research and Dev (engineering studies)	\$1,520	1

<b>Subcategory</b>	<b>Category</b>	<b>Expenditures by Subcategory</b>	<b>Number of Projects</b>
<b>(9) PM Reduction Strategies</b>			
(9a)	Road Dust Control (paving roads, shoulders, street sweeping)	\$1,051,210	20
<b>(10) Public Education</b>			
(10a)	Short Term PE (promote transit, rideshare; conferences)	\$205,529	7
(10b)	Long Term PE (curriculum, video, brochures, bilingual)	\$39,063	3
<b>(11) Miscellaneous Projects</b>			
(11a)	Miscellaneous (use with "Miscellaneous Projects" Category)	\$1,823,559	39
<b>Grand Total</b>		<b>\$16,965,994</b>	<b>368</b>

## Project Funding Sources

Fiscal Year 2014 - 2015

Project Name	MV Fees	MSRC	CMAQ	Moyer	CoFunding
<b>Agoura Hills</b>					
Video Conferencing Equipment Rec/Event Ctr.	\$60,000	\$0	\$0	\$0	\$0
<b>Alhambra</b>					
SCAQMD Rule 2202 Compliance	\$123	\$0	\$0	\$0	\$0
<b>Aliso Viejo</b>					
Crime Prevention/Public Safety	\$27,936	\$0	\$0	\$0	\$0
<b>Anaheim</b>					
Anaheim Canyon Metrolink Platform Improvements	\$1,603	\$0	\$0	\$0	\$198
ART Shuttle - Route 17	\$50,204	\$0	\$0	\$0	\$6,211
ARTIC Metrolink Station Removal of Lockers	\$4,068	\$0	\$0	\$0	\$503
Metrolink OCTA	\$98,969	\$0	\$0	\$0	\$24,883
Rideshare Outreach	\$24,105	\$0	\$0	\$0	\$2,982
Trip Reduction Program	\$65,479	\$0	\$0	\$0	\$8,100
Vanpool Program	\$90,100	\$0	\$0	\$0	\$22,632
<b>Arcadia</b>					
Purchase One Ford CMax Plug-in Hybrid Passenger Car	\$32,433	\$0	\$0	\$0	\$0
Purchase One Prius Hybrid Passenger Car	\$27,751	\$0	\$0	\$0	\$0
Rideshare Plus Program	\$19,322	\$0	\$0	\$0	\$0
<b>Artesia</b>					
Flashing Beacons	\$641	\$0	\$0	\$0	\$0
Traffic Signal Upgrade	\$2,000	\$0	\$0	\$0	\$0
<b>Azusa</b>					
Alternative Fuel Vehicle Purchase	\$27,015	\$0	\$0	\$0	\$0
Alternative Fuel Vehicle Purchase	\$47,201	\$0	\$0	\$0	\$0
Alternative Fuel Vehicle Purchase	\$15,488	\$0	\$0	\$0	\$0
Alternative Fuel Vehicle Purchase	\$57,326	\$0	\$0	\$0	\$0
Alternative Fuel Vehicle Purchase	\$53,231	\$0	\$0	\$0	\$0
Rideshare Financial Incentives	\$10,336	\$0	\$0	\$0	\$0
Transit Pass Subsidy	\$14,488	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Baldwin Park</b>					
Employee Transportation Program	\$2,635	\$0	\$0	\$0	\$7,654
<b>Banning</b>					
WRCOG Clean Cities	\$3,000	\$0	\$0	\$0	\$0
<b>Beaumont</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Bell</b>					
EIR/EIS for I-710 Corridor	\$4,463	\$0	\$0	\$0	\$0
Vehicle Purchase-2 Chevy Silverado	\$73,651	\$0	\$0	\$0	\$0
<b>Bell Gardens</b>					
Alternative Transportation Program	\$69	\$0	\$0	\$0	\$0
Gateway Cities Strategic Transportation Plan	\$11,391	\$0	\$0	\$0	\$0
I-710 Corridor Project	\$6,609	\$0	\$0	\$0	\$0
<b>Bellflower</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Beverly Hills</b>					
Bicycle Racks	\$14,272	\$0	\$0	\$0	\$0
Bus Stop Improvements	\$21,582	\$0	\$0	\$0	\$0
<b>Big Bear Lake</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Brea</b>					
The Tracks at Brea Trail Segment 2-3	\$50,000	\$450,000	\$0	\$0	\$7,000,000
<b>Buena Park</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Burbank</b>					
Arroyo Verdugo Commute Manager Program	\$12,500	\$0	\$0	\$0	\$0
Burbank Commuter Program	\$130,657	\$0	\$0	\$0	\$0
<b>Calabasas</b>					
Lease Payment for Enforcement Vehicles (7-9 SULEV)	\$30,533	\$0	\$0	\$0	\$0
<b>Calimesa</b>					
WRCOG Clean Cities Activities	\$3,000	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Canyon Lake</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Carson</b>					
Breathe-Employee Rideshare Program	\$19,210	\$0	\$0	\$0	\$0
<b>Cathedral City</b>					
Public Education	\$16,563	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$39,153	\$0	\$0	\$0	\$0
<b>Cerritos</b>					
Architectural Design Services for Fixed-Route Bus Stops	\$3,000	\$0	\$0	\$0	\$0
Employee Rideshare Trip Rebate Program	\$34,436	\$0	\$0	\$0	\$0
<b>Chino</b>					
Participation in the Air Quality Investment Program	\$5,976	\$0	\$0	\$0	\$0
<b>Chino Hills</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Claremont</b>					
Electric Vehicle Purchase for PD	\$31,332	\$0	\$0	\$0	\$0
Employees Using Public Transportation- 2 Employees	\$1,939	\$0	\$0	\$0	\$0
<b>Coachella</b>					
CVAG Regional PM10 Street Sweeping Program	\$32,482	\$0	\$0	\$0	\$0
<b>Colton</b>					
Citywide Street Sweeping	\$55,981	\$0	\$0	\$0	\$0
<b>Commerce</b>					
Employer Based Trip Reduction	\$16,133	\$0	\$0	\$0	\$0
<b>Compton</b>					
Employee Commute Reduction Program (Rideshare)	\$65,045	\$0	\$0	\$0	\$0
<b>Corona</b>					
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$1,049	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Corona (cont'd)</b>					
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Rebate Program	\$2,099	\$0	\$0	\$0	\$0
Alternative Fuel Vehicle Rebate Program	\$2,099	\$0	\$0	\$0	\$0
City of Corona Carpool Program (12 vehicles)	\$19,374	\$0	\$0	\$0	\$0
Corona Cruiser Passenger Fare Subsidy	\$17,416	\$0	\$0	\$0	\$0
Purchase and installation of CNG fuel dispenser	\$57,812	\$0	\$0	\$0	\$0
Western Riverside Council of Gov. Clean Cities Coalition	\$6,000	\$0	\$0	\$0	\$0
<b>Costa Mesa</b>					
17th St. Traffic Signal Synchronization Project	\$3,061	\$0	\$0	\$0	\$0
Baker St./Placentia Ave. Traffic Signal Sync. Project	\$18,899	\$0	\$0	\$0	\$0
Bicycle Safety Education at Sixteen Schools	\$9,760	\$0	\$0	\$0	\$0
East 17th Street Intersection Improvements	\$150,000	\$0	\$0	\$0	\$0
East 19th Safe Route to School Project	\$2,124	\$0	\$0	\$0	\$0
Fairview Rd. Traffic Signal Synchronization Project	\$27,104	\$0	\$0	\$0	\$0
Harbor Blvd. Widening	\$6,057	\$0	\$0	\$0	\$0
Install Bicycle Racks at City Facilities	\$825	\$0	\$0	\$0	\$0
Placentia Ave. & 20th St. Flashing Crosswalk	\$16,248	\$0	\$0	\$0	\$0
Rule 2202 Implementation	\$4,390	\$0	\$0	\$0	\$0
Sunflower Ave. & Anton Blvd. Signal Improvements	\$19,206	\$0	\$0	\$0	\$0
Victoria St. and Valley Rd. Improvements	\$6,394	\$0	\$0	\$0	\$0
Victoria St. Traffic Signal Synchronization Project	\$4,825	\$0	\$0	\$0	\$0
West 19th St. Pedestrian Improvements	\$102,786	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>County of LA</b>					
Clean Air Plan Implementation	\$20,000	\$0	\$0	\$0	\$0
Countywide Trip Reduction Services/Outreach	\$404,073	\$0	\$0	\$0	\$0
<b>County of Orange</b>					
Employee Rideshare Program	\$35,000	\$0	\$0	\$0	\$194,009
<b>County of Riverside</b>					
Audit of AB2766 Revenue and Expense	\$5,370	\$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	\$226,322	\$0	\$0	\$0	\$0
Purchase of Mobile Source Emission Reduction Credits	\$123,403	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$37,045	\$0	\$0	\$0	\$0
Rule 2202 Multisite Cluster Registration	\$9,627	\$0	\$0	\$0	\$0
Video Conferencing	\$76,310	\$0	\$0	\$0	\$0
<b>County of San Bernardino</b>					
Employee Commute Reduction Program	\$283,100	\$0	\$0	\$0	\$0
Vanpool Subsidy Program	\$30,100	\$0	\$0	\$0	\$0
<b>Covina</b>					
Commuter Choice Reimbursement Program	\$5,929	\$0	\$0	\$0	\$0
Commuter Rideshare Program	\$1,917	\$0	\$0	\$0	\$0
<b>Cudahy</b>					
Hybrid Vehicle Lease (3 Vehicles)	\$17,101	\$0	\$0	\$0	\$0
<b>Culver City</b>					
Purchase of Two (2) Electric Vehicles	\$74,078	\$0	\$0	\$0	\$0
<b>Cypress</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Dana Point</b>					
	\$0	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Desert Hot Springs</b>					
Regional PM10 Street Sweeping Program	\$20,845	\$0	\$0	\$0	\$0
Street Sweeping Program - Clean Street	\$59,030	\$0	\$0	\$0	\$0
<b>Diamond Bar</b>					
Neighborhood Traffic Management Program (NTMP)	\$29,366	\$0	\$0	\$0	\$0
<b>Downey</b>					
Downey Employees "Thumbs Up" Commuting Program	\$112,823	\$0	\$0	\$0	\$0
<b>Duarte</b>					
Transit Connect	\$3,730	\$0	\$0	\$0	\$0
<b>Eastvale</b>					
Limonite Traffic Signal Synchronization	\$35,858	\$0	\$0	\$0	\$0
Purchase Code Enforcement Alternative Vehicle (1)	\$55,323	\$0	\$0	\$0	\$0
WRCOG Clean Cities Coalition	\$6,000	\$0	\$0	\$0	\$0
<b>El Monte</b>					
CNG Station Card Reader Expenses	\$2,773	\$0	\$0	\$0	\$0
Fuel Cost for Alternative Fuel Vehicle	\$5	\$0	\$0	\$0	\$0
Fuel Cost for Alternative Fuel Vehicle	\$1,068	\$0	\$0	\$0	\$0
Monthly Rideshare Incentives	\$52,352	\$0	\$0	\$0	\$0
Regional PM10 Street Sweepers Contract (2 Vehicles)	\$150,000	\$0	\$0	\$0	\$0
Rule 2202 Filing Fees	\$762	\$0	\$0	\$0	\$0
<b>El Segundo</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Fontana</b>					
AFV Rebate Program - 10 SULEV Vehicles	\$5,000	\$0	\$0	\$0	\$0
AFV Rebate Program - 3 ZEV Vehicles	\$1,500	\$0	\$0	\$0	\$0
City of Fontana Rule 2202 Rideshare Compliance Activities	\$8,152	\$0	\$0	\$0	\$0
Fire Station 73 bus shelter	\$66,098	\$0	\$0	\$0	\$0
San Sevaine Trail	\$19,370	\$0	\$0	\$0	\$0
Sawtooth/Concrete Improvements	\$197,519	\$0	\$0	\$0	\$0
<b>Fountain Valley</b>					
	\$0	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Fullerton</b>					
Bike Blvd. Pilot Program	\$1,520	\$0	\$0	\$0	\$0
Bike Rack Purchase/Installation	\$1,968	\$0	\$0	\$0	\$0
CNG Station Upgrades	\$25,548	\$0	\$0	\$0	\$0
Electronic Plan Check System	\$46,198	\$0	\$0	\$0	\$0
Lease of 6 CNG vehicles	\$33,202	\$0	\$0	\$0	\$0
Rule 2202 Emission Credits	\$22,164	\$0	\$0	\$0	\$0
Wireless Connectivity for Field Employees	\$1,498	\$0	\$0	\$0	\$0
<b>Garden Grove</b>					
Bicycle Loan Program	\$3,636	\$0	\$0	\$0	\$0
CNG Vanpool Program	\$38,520	\$0	\$0	\$0	\$0
TDM Services	\$44,419	\$0	\$0	\$0	\$0
Transit Subsidy Program (Metrolink & Bus)	\$10,166	\$0	\$0	\$0	\$0
Vanpool Program Conventional Gasoline	\$51,360	\$0	\$0	\$0	\$0
<b>Gardena</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Glendale</b>					
Employer Based Trip Reduction Program	\$242,931	\$0	\$0	\$0	\$0
<b>Glendora</b>					
Altcom - Bicycle Component	\$2,180	\$0	\$0	\$0	\$0
Altcom - Carpool Component	\$6,296	\$0	\$0	\$0	\$0
Altcom - Public Transit Component	\$425	\$0	\$0	\$0	\$0
Altcom - Walking Component	\$3,281	\$0	\$0	\$0	\$0
<b>Grand Terrace</b>					
Vehicle Purchases	\$59,708	\$0	\$0	\$0	\$0
<b>Hawaiian Gardens</b>					
Gateway Cities COG Transportation Planning	\$1,773	\$0	\$0	\$0	\$20,000
<b>Hawthorne</b>					
Rideshare Incentives	\$2,290	\$0	\$0	\$0	\$0
Street Sweeping contract	\$100,000	\$0	\$0	\$0	\$0
<b>Hemet</b>					
	\$0	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Hermosa Beach</b>					
AQMD Incentive to Reduce Auto Trips	\$2,370	\$0	\$0	\$0	\$0
<b>Hidden Hills</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Highland</b>					
Signal Synchronization	\$19,715	\$540	\$0	\$0	\$0
<b>Huntington Beach</b>					
4th of July/US Open Shuttle Service	\$22,000	\$0	\$0	\$0	\$12,540
Bike Corridor Improvements	\$47,527	\$0	\$0	\$0	\$0
Electric Forklift	\$42,417	\$0	\$0	\$0	\$0
Emission Credits and Rule 2202 filing	\$12,443	\$0	\$0	\$0	\$0
Employee Rideshare Program	\$24,321	\$0	\$0	\$0	\$0
Ford C-Max	\$32,018	\$0	\$0	\$0	\$0
GMC 4x2 CNG Vehicle	\$45,386	\$0	\$0	\$0	\$0
Traffic Counts	\$1,450	\$0	\$0	\$0	\$0
<b>Huntington Park</b>					
Alternative Fuel Vehicles	\$10,551	\$0	\$0	\$0	\$0
Bicycle Grand Prix	\$9,970	\$0	\$0	\$0	\$0
<b>Indian Wells</b>					
CVAG Regional PM10 Street Sweeping Program	\$3,803	\$0	\$0	\$0	\$0
Purchase of one CNG ford Crown Vic for use by City personnel	\$1,335	\$0	\$0	\$0	\$0
<b>Indio</b>					
Regional PM10 Street Sweeping Program	\$61,339	\$0	\$0	\$0	\$0
<b>Inglewood</b>					
Purchase of SULV Ford F-250 Lt Duty Pickup Truck	\$51,972	\$0	\$0	\$0	\$0
<b>Irvine</b>					
CNG Sweeper Conversion	\$40,000	\$0	\$0	\$0	\$0
CNG Trucks Conversion	\$40,000	\$0	\$0	\$0	\$0
Irvine Spectrum Transportation Management Association	\$3,556	\$0	\$0	\$0	\$0
Irvine Station	\$167,122	\$0	\$0	\$0	\$0
Rule 2202 Credit	\$7,442	\$0	\$0	\$0	\$0
San Diego Creek Trail Lights Implementation	\$13,736	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Irwindale</b>	\$0	\$0	\$0	\$0	\$0
<b>Jurupa Valley</b>	\$0	\$0	\$0	\$0	\$0
<b>La Canada Flintridge</b>	\$0	\$0	\$0	\$0	\$0
<b>La Habra</b>	\$83,825	\$0	\$0	\$0	\$0
Shuttles to transport Seniors					
<b>La Habra Heights</b>	\$2,702	\$0	\$0	\$0	\$0
EV Charging Station					
<b>LA Mirada</b>	\$7,678	\$0	\$0	\$0	\$0
I-5 Mitigation Project					
<b>La Palma</b>	\$4,065	\$0	\$0	\$0	\$0
Trip Reduction					
<b>La Puente</b>	\$34,528	\$10,000	\$0	\$0	\$0
Purchase of one (1) F250 alternative fuel mtce vehicle	\$46,602	\$10,000	\$0	\$0	\$0
Purchase of one (1) F350 alternative fuel mtce vehicle	\$148,796	\$90,000	\$0	\$0	\$0
Purchase of Three (3) alternative fuel (LPG) Transit Buses					
<b>La Quinta</b>	\$29,057	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program					
<b>La Verne</b>	\$10,258	\$0	\$0	\$0	\$0
Bike, Carpool, Walk, Incentive Program					
<b>Laguna Beach</b>	\$18,468	\$0	\$0	\$0	\$0
Free Mainline Service during the Summer	\$11,325	\$0	\$0	\$0	\$0
Free Ride to Work Program					
<b>Laguna Hills</b>	\$7,433	\$0	\$0	\$0	\$0
El Toro/Ridge Route Rubberized Pavement					
<b>Laguna Niguel</b>	\$10,015	\$0	\$0	\$0	\$0
Laguna Niguel/Mission Viejo Metrolink Station	\$21,643	\$0	\$0	\$0	\$0
Traffic Signal Coordination					

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Laguna Woods</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Lake Elsinore</b>					
Citywide Traffic Signal Coordination Program	\$13,535	\$0	\$0	\$0	\$0
Clean Cities Coalition (WRCOG)	\$6,000	\$0	\$0	\$0	\$0
Electric Vehicle Charging Stations	\$56,700	\$39,629	\$0	\$0	\$0
Mission Trail Traffic Signal Synchronization	\$1,578	\$0	\$0	\$0	\$0
<b>Lake Forest</b>					
Alton Parkway Traffic Signal Synchronization	\$2,031	\$0	\$0	\$0	\$0
Bake Parkway Traffic Signal Synchronization	\$1,226	\$0	\$0	\$0	\$0
Barranca/Muirlands Traffic Signal Synchronization	\$3,335	\$0	\$0	\$0	\$0
Citywide Traffic Signal Coordination Master Plan	\$142,647	\$0	\$0	\$0	\$0
Electric Golf Carts	\$23,814	\$0	\$0	\$0	\$0
Jeronimo Traffic Signal Synchronization	\$5,485	\$0	\$0	\$0	\$0
Lake Forest Drive Traffic Signal Synchronization	\$815	\$0	\$0	\$0	\$0
Los Alisos Blvd Traffic Signal Synchronization	\$240	\$0	\$0	\$0	\$0
Prof Serv-Traffic Engineer for Traffic Signal Monitoring	\$58,532	\$0	\$0	\$0	\$0
Rancho and Sports Park Intersection Signal	\$122,178	\$0	\$0	\$0	\$0
Santa Margarita Pkwy Traffic Signal Synchronization	\$1,310	\$0	\$0	\$0	\$0
Signal Maintenance Centracs Software	\$3,276	\$0	\$0	\$0	\$0
Trabuco Road Traffic Signal Synchronization	\$7,907	\$0	\$0	\$0	\$0
<b>Lakewood</b>					
CNG Compressor Replacement	\$42,558	\$0	\$0	\$0	\$0
CNG Tank Replacement	\$26,709	\$0	\$0	\$0	\$0
Gateway Cities COG 91/605 Corridor Study	\$10,077	\$0	\$0	\$0	\$0
Truck-Impacted Intersection Project	\$4,800	\$0	\$0	\$0	\$0
<b>Lawndale</b>					
CNG Vehicles-1-Ford F250 & 1Ford E150 Cargo Van	\$81,159	\$0	\$0	\$0	\$0
<b>Loma Linda</b>					
City Street Sweeping Program	\$16,300	\$0	\$0	\$0	\$0
Signal Coordination	\$6,255	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Lomita</b>					
CNG Street Sweeping Services	\$15,000	\$0	\$0	\$0	\$74,049
Purchase of Alternative Fuel Vehicle	\$26,283	\$0	\$0	\$0	\$0
<b>Long Beach</b>					
Bike Share Phase II	\$183	\$0	\$0	\$0	\$2,160
Gateway Cities COG - Major Corridor Study	\$16,100	\$0	\$0	\$0	\$0
Rule 2202/AVR Compliance	\$1,364	\$0	\$0	\$0	\$0
TI FWY EJ Grant Match	\$7,216	\$0	\$0	\$0	\$0
<b>Los Alamitos</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Los Angeles (City)</b>					
#1 Alt Fuel Fleet Veh Purchase-12 Elgin Broom Bear Sweepers	\$282,439	\$0	\$0	\$0	\$3,800,573
#2 Alt Fuel Veh Purchase 10 LNG Solid Resource Vehicles	\$282,439	\$0	\$0	\$0	\$2,335,421
AB2766 Annual Audit Fund	\$13,842	\$0	\$0	\$0	\$0
Air Quality Education and CicLAVia	\$145,364	\$0	\$0	\$0	\$3,604
Alternative Commute/Car Sharing Program Development	\$50,926	\$0	\$0	\$0	\$94,503
ATSAC Control Center	\$1,170,385	\$0	\$0	\$0	\$6,524,320
Bicycle Transit Incentive Program	\$32,739	\$0	\$0	\$0	\$41,760
Bike Share Program and Bike Repair Stations	\$50,926	\$0	\$0	\$0	\$17,431
BOE Alt Fuel Infrastructure Eng, Design and Tech Support	\$171,562	\$0	\$0	\$0	\$0
Carpool Program	\$135,124	\$0	\$0	\$0	\$0
Employee transit subsidy	\$384,781	\$0	\$0	\$0	\$1,346,174
Employee Vanpool Program	\$589,891	\$0	\$0	\$0	\$687,360
EV Infrastructure and Sustainability Plan	\$43,349	\$0	\$0	\$0	\$110,187
Green Taxi Program	\$50,926	\$0	\$0	\$0	\$0
LAPD Bicycle Patrol Bike Purchase Program	\$69,453	\$0	\$0	\$0	\$185,322
Mobility Hubs needs assessment and planning work	\$1,029,137	\$0	\$0	\$0	\$0
N. Hollywood Fleet Maintenance Alt Fuel Facility Upgrade	\$1,518,247	\$0	\$0	\$0	\$9,399,794
Walk Subsidy Program	\$22,307	\$0	\$0	\$0	\$28,420
<b>Lynwood</b>					
	\$0	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Malibu</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Manhattan Beach</b>					
Employee Rideshare Program	\$8,880	\$0	\$0	\$0	\$0
<b>Maywood</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Menifee</b>					
Alternative Fuel Vehicle Purchases	\$103,868	\$0	\$0	\$0	\$0
<b>Mission Viejo</b>					
City of Mission Viejo Air Quality Planning: FY14-15	\$41,076	\$0	\$0	\$0	\$0
<b>Monrovia</b>					
Discount Bus Pass Program	\$4,742	\$0	\$0	\$0	\$0
Employer Commute Reduction Program (ECRP)	\$4,662	\$0	\$0	\$0	\$0
<b>Montclair</b>					
Rideshare Program	\$24,736	\$0	\$0	\$0	\$0
<b>Montebello</b>					
Employee Commute Reduction Program	\$43,998	\$0	\$0	\$0	\$0
<b>Monterey Park</b>					
CNG Upgraded Station	\$18,120	\$35,976	\$0	\$0	\$0
Employee Transportation Program	\$16,737	\$0	\$0	\$0	\$0
Rule 2202 Compliance	\$535	\$0	\$0	\$0	\$0
Rule 2202 Compliance Emission Credit Purchase	\$3,200	\$0	\$0	\$0	\$0
<b>Moreno Valley</b>					
Street Sweeping Program	\$178,366	\$0	\$0	\$0	\$0
Traffic Signal Coordination Program	\$10,774	\$0	\$0	\$0	\$0
WRCOG - Clean Cities Coalition	\$15,000	\$0	\$0	\$0	\$0
<b>Murrieta</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Newport Beach</b>					
Employee Rideshare Program	\$6,980	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Norco</b>					
Electric shuttle	\$23,697	\$0	\$0	\$0	\$0
Electric shuttle	\$23,697	\$0	\$0	\$0	\$0
<b>Norwalk</b>					
AB 2766 Audit Expenses	\$2,500	\$0	\$0	\$0	\$0
Cleaner Street Sweeping Contract	\$87,564	\$0	\$0	\$0	\$583,436
Employee Commuter Program	\$30,000	\$0	\$0	\$0	\$0
I5 Consortium Cities JPA	\$7,000	\$0	\$0	\$0	\$0
iPad Work Order System	\$5,223	\$0	\$0	\$0	\$0
<b>Ontario</b>					
EV Charging Station	\$29,368	\$0	\$0	\$0	\$0
Fleet Shop Upgrades	\$100,776	\$0	\$0	\$0	\$0
Rideshare	\$31,490	\$0	\$0	\$0	\$0
<b>Orange (City)</b>					
Bike Loan to Own Program	\$1,202	\$0	\$0	\$0	\$0
Electric Car Charging Stations	\$15,084	\$0	\$0	\$0	\$0
Orange Police Bike Team	\$6,360	\$0	\$0	\$0	\$0
Trip Reduction Program	\$161,365	\$0	\$0	\$0	\$0
<b>Palm Desert</b>					
City Rideshare Program	\$1,231	\$0	\$0	\$0	\$0
Palm Desert Community EV Infrastructure Project	\$129,713	\$0	\$0	\$0	\$0
PM10 Mitigation	\$139,299	\$0	\$0	\$0	\$0
Regional PM10 Street Sweeping Program	\$37,532	\$0	\$0	\$0	\$0
<b>Palm Springs</b>					
CVAG Street Sweeping Program	\$34,344	\$0	\$0	\$0	\$0
Incentive for Ride Share Survey	\$200	\$0	\$0	\$0	\$0
Ride Share Incentive Program	\$7,911	\$0	\$0	\$0	\$0
Super Ultra Low Emissions Vehicle Purchase -2 Volts	\$64,231	\$0	\$0	\$0	\$0
<b>Palos Verdes Estates</b>					
AFV Purchase Program	\$26,895	\$0	\$0	\$0	\$2,105

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Paramount</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Pasadena</b>					
CicLAvia	\$11,505	\$0	\$0	\$0	\$402,283
Prideshare	\$86,905	\$0	\$0	\$0	\$290,000
<b>Perris</b>					
Public Works Fleet Vehicle Replacement	\$115,940	\$0	\$0	\$0	\$0
<b>Pico Rivera</b>					
Development of Strategic Transportation Plans	\$8,101	\$0	\$0	\$0	\$0
Lease of 6 hybrid vehicles (2014 Toyota Prius C)	\$10,492	\$0	\$0	\$0	\$0
Purchase of 2 hybrid vehicles (2014 Toyota Prius C)	\$39,965	\$0	\$0	\$0	\$0
<b>Placentia</b>					
Placentia Ave & Kraemer Blvd Signal Coordination	\$11,767	\$0	\$0	\$0	\$0
<b>Pomona</b>					
CNG Trash Trucks Lease Payment (22)	\$85,000	\$0	\$0	\$0	\$0
Particulate Filter Retrofit Exhaust Unit 26301	\$8,820	\$0	\$0	\$0	\$965
Rule 2202 Emission Credits Purchase	\$3,400	\$0	\$0	\$0	\$0
San Gabriel Valley - Mobility Matrix - SGVCOG	\$13,500	\$0	\$0	\$0	\$0
<b>Rancho Cucamonga</b>					
Bike Lockers Installation	\$40,749	\$0	\$0	\$0	\$0
CNG Fuel Station Expansion	\$200,246	\$0	\$0	\$0	\$0
Employer Ride Share Program	\$18,793	\$0	\$0	\$0	\$0
<b>Rancho Mirage</b>					
Regional PM10 Street Sweeping Program	\$13,210	\$0	\$0	\$0	\$0
<b>Rancho Palos Verdes</b>					
Public Transit/Fixed Route Shuttle Service	\$7,273	\$0	\$0	\$0	\$0
Public Transit/Fixed Route Shuttle Service	\$58,849	\$0	\$0	\$0	\$0
<b>Rancho Santa Margarita</b>					
Countdown Pedestrian Signal Heads	\$42,860	\$0	\$0	\$0	\$0
Crosswalk LED Signs	\$24,226	\$0	\$0	\$0	\$0
Speed Feedback Signs	\$27,172	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Redlands</b>					
Bus Pad Improvements	\$18,329	\$0	\$0	\$0	\$39,900
LCNG Station Expansion	\$157,903	\$85,000	\$0	\$0	\$0
Rideshare Van Replacement	\$90,234	\$0	\$0	\$0	\$0
Solid Waste Vehicles	\$90,000	\$90,000	\$0	\$0	\$609,716
<b>Redondo Beach</b>					
Employee Rideshare	\$63,613	\$0	\$0	\$0	\$0
<b>Rialto</b>					
Rideshare Program	\$76,519	\$0	\$0	\$0	\$0
<b>Riverside (City)</b>					
AQMD Rule 2202 Compliance	\$26,730	\$0	\$0	\$0	\$0
City Pass Program	\$16,949	\$0	\$0	\$0	\$0
Clean Cities Coalition	\$25,000	\$0	\$0	\$0	\$0
Electric Vehicle Rebate Program	\$2,500	\$0	\$0	\$0	\$0
ProjectDox	\$54,886	\$0	\$0	\$0	\$0
Riverside Go Transit Bus Pass Subsidy Program	\$82,846	\$0	\$0	\$0	\$0
Riverside Traffic Management Center	\$27,233	\$0	\$0	\$0	\$0
Santa Ana River Bike Trail at Martha McClean Park	\$14,001	\$0	\$0	\$0	\$0
<b>Rolling Hills Estates</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Rosemead</b>					
Purchase charging station	\$22,693	\$0	\$0	\$0	\$0
<b>San Bernardino (City)</b>					
Employee Rideshare Program	\$65,997	\$0	\$0	\$0	\$0
<b>San Clemente</b>					
North Beach Traffic Calming and Pedestrian	\$40,593	\$0	\$0	\$0	\$0
Traffic Calming – Esplanade Bulb-out	\$1,456	\$0	\$0	\$0	\$0
<b>San Dimas</b>					
Charging Station Fuel Usage	\$3,666	\$0	\$0	\$0	\$0
Electric Vehicle Leases	\$6,867	\$0	\$0	\$0	\$0
<b>San Fernando</b>					
	\$0	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>San Gabriel</b>					
Alternative Fueled/Electric Vehicle Purchase	\$50,010	\$0	\$0	\$0	\$0
<b>San Jacinto</b>					
WRCOG Clean Cities Coalition Activities	\$6,000	\$0	\$0	\$0	\$0
<b>San Juan Capistrano</b>					
Countdown Pedestrian Signals Project	\$436	\$0	\$0	\$0	\$0
Neighborhood Traffic Calming Project	\$430	\$0	\$0	\$0	\$0
Regional Traffic Signal Synchronization	\$638	\$0	\$0	\$0	\$0
Senior Nutritional Program Transportation	\$7,027	\$0	\$0	\$0	\$35,133
Trolley Program	\$7,971	\$0	\$0	\$0	\$0
<b>San Marino</b>					
Purchase of Bike Racks	\$1,703	\$0	\$0	\$0	\$0
<b>Santa Ana</b>					
Blue skies Ride Share Program	\$104,301	\$0	\$0	\$0	\$0
City Climate Action Plan	\$12,214	\$0	\$0	\$0	\$0
Downtown Complete Streets Plan	\$13,563	\$0	\$0	\$0	\$0
Electric Vehicle Lease (2)	\$11,051	\$0	\$0	\$0	\$0
General Plan Circulation Element	\$12,169	\$0	\$0	\$0	\$0
General Plan Land Use Designations	\$11,901	\$0	\$0	\$0	\$0
OCTA Harbor Fixed Guideway Feasibility Study	\$8,460	\$0	\$0	\$0	\$0
Purchase of GPS systems	\$16,246	\$0	\$0	\$0	\$0
Senior Mobility Bus Purchase - Match	\$20,875	\$0	\$0	\$0	\$182,000
<b>Santa Clarita</b>					
Bike to Work Promotional Costs	\$3,855	\$0	\$0	\$0	\$0
Bike to Work/Santa Clarita	\$150	\$0	\$0	\$0	\$0
Promotion Rideshare Program	\$969	\$0	\$0	\$0	\$0
RideShare	\$5,726	\$0	\$0	\$0	\$0
<b>Santa Fe Springs</b>					
	\$0	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Santa Monica</b>					
Electric Vehicle Chargers	\$1,661	\$0	\$0	\$0	\$0
Electric Vehicle Purchases	\$20,000	\$0	\$0	\$0	\$0
Hydrogen Powered Vehicle Lease	\$3,971	\$0	\$0	\$0	\$0
Public Education - AltCar Expo	\$10,000	\$0	\$0	\$0	\$0
<b>Seal Beach</b>					
Orange County Senior Transportation Program	\$30,510	\$0	\$0	\$0	\$0
<b>Sierra Madre</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Signal Hill</b>					
Gateway Cities Trans Assessment	\$1,415	\$0	\$0	\$0	\$0
<b>South El Monte</b>					
Alternative Fuel Vehicles	\$26,393	\$0	\$0	\$0	\$0
Bus Pass Subsidy Program	\$7,685	\$0	\$0	\$0	\$0
<b>South Gate</b>					
Alternative electrical Utility Vehicle	\$10,618	\$0	\$0	\$0	\$0
Alternative Fuel Vehicle Lease	\$22,583	\$0	\$0	\$0	\$0
Alternative fuel/ Electric Utility Vehicle # 726	\$26,801	\$0	\$0	\$0	\$0
Alternative Fuel/ Electric Vehicle # 728	\$26,801	\$0	\$0	\$0	\$0
Alternative fuel/Electric Vehicle # 727	\$26,801	\$0	\$0	\$0	\$0
Employer Rideshare Program	\$2,648	\$0	\$0	\$0	\$0
<b>South Pasadena</b>					
Employer Rideshare Program	\$466	\$0	\$0	\$0	\$0
<b>Stanton</b>					
Alternative Commute Incentive	\$1,700	\$0	\$0	\$0	\$0
<b>Temecula</b>					
Clean Cities Coalition Air Quality	\$10,000	\$0	\$0	\$0	\$0
Pedestrian Bicycle Bridge	\$3,235	\$0	\$0	\$0	\$0
Route 55 Temecula Trolley Services	\$17,049	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Temple City</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Torrance</b>					
Electric Vehicle Charging Infrastructure	\$49,639	\$56,000	\$0	\$0	\$456,032
Employee Trip Reduction	\$146,649	\$0	\$0	\$0	\$0
<b>Tustin</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Upland</b>					
Rideshare Activities	\$14,806	\$0	\$0	\$0	\$0
Vehicle Purchase	\$63,254	\$0	\$0	\$0	\$0
<b>Villa Park</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Walnut</b>					
Bus Pass Subsidies	\$8,676	\$0	\$0	\$0	\$0
Street Sweeping with CNG Sweeper	\$50,860	\$0	\$0	\$0	\$0
<b>West Covina</b>					
Air Quality Investment Program (AQIP)	\$5,163	\$0	\$0	\$0	\$0
Website Design & Development	\$2,400	\$0	\$0	\$0	\$0
<b>West Hollywood</b>					
Alternative Transportation Program	\$52,174	\$0	\$0	\$0	\$0
Bicycle and Pedestrian Mobility Plan	\$3,151	\$0	\$0	\$0	\$0
Employee Bike Share Program	\$20,463	\$0	\$0	\$0	\$0
Traffic Calming Design Program	\$1,600	\$0	\$0	\$0	\$0
<b>Westlake Village</b>					
Hybrid Vehicle Fuel Purchase	\$6,073	\$0	\$0	\$0	\$0
<b>Westminster</b>					
Rideshare Program	\$19,259	\$0	\$0	\$0	\$0
Vanpool Program	\$68,000	\$0	\$0	\$0	\$0

<b>Project Name</b>	<b>MV Fees</b>	<b>MSRC</b>	<b>CMAQ</b>	<b>Moyer</b>	<b>CoFunding</b>
<b>Whittier</b>					
Air Quality Investment Program	\$2,333	\$0	\$0	\$0	\$0
Employee Rideshare	\$4,490	\$0	\$0	\$0	\$0
Gateway Cities COG	\$11,497	\$0	\$0	\$0	\$0
<b>Wildomar</b>					
	\$0	\$0	\$0	\$0	\$0
<b>Yorba Linda</b>					
Eagle Aerial - GIS Supplement	\$8,320	\$0	\$0	\$0	\$0
<b>Yucaipa</b>					
12th and 13th Streets Curb, Gutter, Sidewalk	\$12,489	\$0	\$0	\$0	\$0
Avenue E Street Curb, Gutter, Sidewalk	\$12,490	\$0	\$0	\$0	\$0
<b>Totals</b>	<b>\$16,965,994</b>	<b>\$867,145</b>	<b>\$0</b>	<b>\$0</b>	<b>\$34,552,361</b>

## Range of Cost-Effectiveness by Subcategory for Fiscal Year 2014 - 2015

	<b>Lowest</b> (ROG + NOx + PM2.5)	<b>Highest</b>	<b>Lowest</b> (ROG + NOx + PM2.5 + CO/7)	<b>Highest</b>
<b>(1a) Alternative Fuel Vehicle Purchases</b>	\$4.76	\$2,439.29	\$2.64	\$1,352.68
<b>(1b) Alternative Fuel Vehicle Conversions</b>	\$69.25	\$69.25	\$40.53	\$40.53
<b>(1d) Electric Vehicle Purchases</b>	\$2.40	\$1,448.87	\$1.25	\$752.86
<b>(2c) Old Vehicle Scrappage</b>	\$2.05	\$2.05	\$1.15	\$1.15
<b>(2d) On-road CARB-verified Diesel Emission Control</b>	\$9,874.57	\$9,874.57	\$9,874.57	\$9,874.57
<b>(4d) Passenger Fare Subsidies</b>	\$9.53	\$305.32	\$5.88	\$188.80
<b>(5a) Traffic Calming</b>	\$10.67	\$35.00	\$6.44	\$28.86
<b>(5b) Traffic Flow or Signalization (timing, surveillance)</b>	\$0.75	\$422.30	\$0.41	\$257.05
<b>(5c) Alternate Mode Signalization (transit/bike pre-emption)</b>	\$163.23	\$163.23	\$101.51	\$101.51
<b>(6a) Employer-Based Trip Reduction</b>	\$1.45	\$781.24	\$0.11	\$479.75
<b>(6b) Other Trip Reduction Incentive Programs</b>	\$87.79	\$5,331.57	\$53.91	\$3,281.94
<b>(6e) Telecommunication</b>	\$3.66	\$54,501.17	\$3.19	\$34,219.08
<b>(8a) Bicycle Lanes and Trails (also bridges)</b>	\$18.07	\$104,667.92	\$11.27	\$65,512.95
<b>(8c) Bicycle Usage (electric bikes, purchases, loaner projects)</b>	\$1.20	\$11,249.46	\$0.63	\$6,924.80
<b>(9a) Road Dust Control (paving roads, shoulders, street)</b>	\$7.12	\$215.62	\$7.12	\$215.65
<b>(11a) Miscellaneous (use with "Miscellaneous Projects")</b>	\$0.14	\$1,713.92	\$0.11	\$1,578.61

Cost effectiveness is based on MV Fees + MSRC + Moyer funding.

## Average Cost-Effectiveness by Project

Fiscal Year 2014 - 2015

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs./year)	Cost- Effectiveness (\$/lb.)
<b>(1) Alternative Fuels/Electric Vehicles</b>					
<b>(1a) Alternative Fuel Vehicle Purchases</b>					
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	113	\$2.64
Corona	Alternative Fuel Rebate Program	\$1,049	\$149	38	\$3.96
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	75	\$3.96
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	60	\$4.95
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	57	\$5.28
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	57	\$5.28
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	45	\$6.60
Corona	Alternative Fuel Rebate Program	\$1,049	\$149	19	\$7.92
El Monte	Regional PM10 Street Sweepers Contract (2 Vehicles)	\$150,000	\$154,500	18,317	\$8.43
Corona	Alternative Fuel Vehicle Rebate Program	\$2,099	\$299	26	\$11.32
La Puente	Purchase of Three (3) alternative fuel (LPG) Transit Buses	\$148,796	\$23,990	1,687	\$14.22
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	17	\$17.94
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	13	\$22.43
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	11	\$26.91
Calabasas	Lease Payment for Enforcement Vehicles (7-9 SULEV)	\$30,533	\$4,350	149	\$29.18
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	10	\$29.91
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	10	\$29.91
South Gate	Alternative Fuel Vehicle Lease	\$22,583	\$2,647	75	\$35.32
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	8	\$35.89
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	8	\$35.89
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	8	\$35.89
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	7	\$44.86
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	6	\$48.94
Palos Verdes Estates	AFV Purchase Program	\$26,895	\$3,831	80	\$47.98
Pomona	CNG Trash Trucks Lease Payment (22)	\$85,000	\$9,965	179	\$55.63
Azusa	Alternative Fuel Vehicle Purchase	\$15,488	\$2,206	39	\$57.13
South El Monte	Alternative Fuel Vehicles	\$26,393	\$4,236	74	\$57.44
Fullerton	Lease of 6 CNG vehicles	\$33,202	\$3,336	53	\$62.39
Corona	Alternative Fuel Rebate Program	\$2,099	\$299	4	\$67.29

<b>Project Category</b>	<b>Project Name</b>	<b>MV Fees</b>	<b>Air Funds* Amortized</b>	<b>Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)</b>	<b>Cost- Effectiveness (\$/lb)</b>	
<b>(1a) Alternative Fuel Vehicle Purchases (cont'd)</b>						
<i>Azusa</i>	Alternative Fuel Vehicle Purchase	\$53,231	\$5,348	77	\$69.53	
<i>Azusa</i>	Alternative Fuel Vehicle Purchase	\$27,015	\$2,714	39	\$70.28	
<i>San Gabriel</i>	Alternative Fueled/Electric Vehicle Purchase	\$50,010	\$7,124	99	\$72.10	
<i>Pico Rivera</i>	lease of 6 Hybrid vehicles (2014 Toyota Prius C)	\$10,492	\$3,709	32	\$115.37	
<i>Arcadia</i>	Purchase One Prius Hybrid Passenger Car	\$27,751	\$3,253	26	\$123.17	
<i>Los Angeles (City)</i>	#2 Alt Fuel Veh Purchase 10 LNG Solid Resource Vehicles	\$282,439	\$33,110	2,413	\$13.72	
<i>Inglewood</i>	Purchase of SULV Ford F-250 Lt Duty Pick-up Truck	\$51,972	\$5,221	38	\$138.37	
<i>Arcadia</i>	Purchase One Ford CMax Plug-in Hybrid Passenger Car	\$32,433	\$3,802	26	\$143.94	
<i>Eastvale</i>	Purchase Code Enforcement Alternative Vehicle (1)	\$55,323	\$5,558	38	\$147.29	
<i>Azusa</i>	Alternative Fuel Vehicle Purchase	\$57,326	\$5,759	39	\$149.13	
<i>Upland</i>	Vehicle Purchase	\$63,254	\$9,011	57	\$159.20	
<i>Cudahy</i>	Hybrid Vehicle Lease (3 Vehicles)	\$17,101	\$3,734	23	\$164.93	
<i>Huntington Beach</i>	Ford C-Max	\$32,018	\$4,561	26	\$174.98	
<i>Menifee</i>	Alternative Fuel Vehicle Purchases	\$103,868	\$14,797	81	\$183.33	
<i>Lomita</i>	Purchase of Alternative Fuel Vehicle	\$26,283	\$3,744	19	\$193.42	
<i>Huntington Beach</i>	GMC 4x2 CNG Vehicle	\$45,386	\$6,465	33	\$194.26	
<i>Redlands</i>	Rideshare Van Replacement	\$90,234	\$10,578	53	\$200.94	
<i>Lawndale</i>	CNG Vehicles-1-Ford F250 & 1Ford E150 Cargo Van	\$81,159	\$9,514	46	\$206.48	
<i>Azusa</i>	Alternative Fuel Vehicle Purchase	\$47,201	\$5,533	24	\$234.13	
<i>Indian Wells</i>	Purchase of one CNG ford Crown Vic for use by City personnel	\$1,335	\$190	1	\$236.39	
<i>Bell</i>	Vehicle Purchase-2 Chevy Silverado	\$73,651	\$10,492	39	\$266.37	
<i>Pico Rivera</i>	Purchase of 2 hybrid vehicles (2014 Toyota Prius C)	\$39,965	\$5,693	21	\$268.08	
<i>South Gate</i>	Alternative fuel/ Electric Utility Vehicle # 726	\$26,801	\$3,818	12	\$310.75	
<i>Perris</i>	Public Works Fleet Vehicle Replacement	\$115,940	\$13,592	38	\$358.21	
<i>Aliso Viejo</i>	Crime Prevention/Public Safety	\$27,936	\$3,275	9	\$365.58	
<i>South Gate</i>	Alternative fuel/Electric Vehicle # 727	\$26,801	\$3,818	9	\$413.66	
<i>La Puente</i>	Purchase of one (1) F350 alternative fuel mtce vehicle	\$46,602	\$6,635	15	\$443.54	
<i>Fontana</i>	AFV Rebate Program - 3 ZEV Vehicles	\$1,500	\$1,545	2	\$738.82	
<i>Los Angeles (City)</i>	#1 Alt Fuel Fleet Veh Purchase-12 Elgin Broom Bear Sweepers	\$282,439	\$33,110	596	\$55.58	
<i>Fontana</i>	AFV Rebate Program - 10 SULEV Vehicles	\$5,000	\$5,150	6	\$817.25	
<i>La Puente</i>	Purchase of one (1) F250 alternative fuel mtce vehicle	\$34,528	\$5,220	6	\$883.49	
<i>Grand Terrace</i>	Vehicle Purchases	\$59,708	\$7,000	8	\$903.32	
<i>South Gate</i>	Alternative Fuel/ Electric Vehicle # 728	\$26,801	\$3,818	3	\$1,352.68	
<i>Redlands</i>	Solid Waste Vehicles	\$90,000	\$21,101	29	\$721.35	
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>Subcategory Summary</b>	<b>\$2,592,267</b>	<b>\$482,737</b>	<b>25,229</b>	<b>\$19.13</b>

<b>Project Category</b>	<b>Project Name</b>	<b>MV Fees</b>	<b>Air Funds* Amortized</b>	<b>Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)</b>	<b>Cost- Effectiveness (\$/lb)</b>	
<b>(1b) Alternative Fuel Vehicle Conversions</b>						
<i>Irvine</i>	CNG Trucks Conversion	\$40,000	\$5,698	141	\$40.53	
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>Subcategory Summary</b>	<b>\$40,000</b>	<b>\$5,698</b>	<b>141</b>	<b>\$40.53</b>
<b>(1d) Electric Vehicle Purchases</b>						
<i>Riverside (City)</i>	Electric Vehicle Rebate Program	\$2,500	\$293	234	\$1.25	
<i>Santa Monica</i>	Hydrogen Powered Vehicle Lease	\$3,971	\$466	141	\$3.31	
<i>San Dimas</i>	Electric Vehicle Leases	\$6,867	\$805	25	\$31.62	
<i>Santa Monica</i>	Electric Vehicle Purchases	\$20,000	\$2,345	66	\$35.76	
<i>Huntington Beach</i>	Electric Forklift	\$42,417	\$4,973	117	\$42.50	
<i>Palm Springs</i>	Super Ultra Low Emissions Vehicle Purchase -2 Volts	\$64,231	\$7,530	114	\$66.14	
<i>Huntington Park</i>	Alternative Fuel Vehicles	\$10,551	\$3,730	26	\$143.08	
<i>Culver City</i>	Purchase of Two (2) Electric Vehicles	\$74,078	\$8,684	46	\$189.14	
<i>Santa Ana</i>	Electric Vehicle Lease (2)	\$11,051	\$3,907	19	\$208.00	
<i>Claremont</i>	Electric Vehicle Purchase for PD	\$31,332	\$3,673	17	\$220.00	
<i>South Gate</i>	Alternative electrical Utility Vehicle	\$10,618	\$1,245	2	\$752.86	
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>Subcategory Summary</b>	<b>\$277,616</b>	<b>\$37,650</b>	<b>805</b>	<b>\$46.74</b>
		<b>Category Summary</b>	<b>\$2,909,883</b>	<b>\$526,085</b>	<b>26,175</b>	<b>\$20.10</b>
<b>(2) Vehicle Emissions Abatement</b>						
<b>(2c) Old Vehicle Scrappage</b>						
<i>Riverside (City)</i>	AQMD Rule 2202 Compliance	\$26,730	\$2,685	2,336	\$1.15	
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>Subcategory Summary</b>	<b>\$26,730</b>	<b>\$2,685</b>	<b>2,336</b>	<b>\$1.15</b>
<b>(2d) On-road CARB-verified Diesel Emission Control Systems--VDECS</b>						
<i>Pomona</i>	Particulate Filter Retrofit Exhaust Unit 26301	\$8,820	\$9,085	1	\$9,874.57	
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>Subcategory Summary</b>	<b>\$8,820</b>	<b>\$9,085</b>	<b>1</b>	<b>\$9,874.57</b>
		<b>Category Summary</b>	<b>\$35,550</b>	<b>\$11,770</b>	<b>2,336</b>	<b>\$5.04</b>

<b>Project Category</b>	<b>Project Name</b>	<b>MV Fees</b>	<b>Air Funds* Amortized</b>	<b>Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)</b>	<b>Cost- Effectiveness (\$/lb)</b>
<b>(4) Public Transportation (Transit &amp; Rail)</b>					
<b>(4c) Transit Operations (new service, shuttles, fuel subsidies)</b>					
<i>San Juan Capistrano</i>	Trolley Program	\$7,971	\$8,210	442	\$18.58
<i>Temecula</i>	Route 55 Temecula Trolley Services	\$17,049	\$17,560	131	\$133.97
<i>Huntington Beach</i>	4th of July/US Open Shuttle Service	\$22,000	\$22,660	160	\$141.38
<i>Anaheim</i>	ART Shuttle - Route 17	\$50,204	\$51,710	138	\$375.08
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>\$97,224</b>	<b>\$100,141</b>	<b>871</b>	<b>\$114.97</b>
<b>(4d) Passenger Fare Subsidies</b>					
<i>South Pasadena</i>	Employer Rideshare Program	\$466	\$480	82	\$5.88
<i>Riverside (City)</i>	City Pass Program	\$16,949	\$1,987	204	\$9.72
<i>Riverside (City)</i>	Riverside Go Transit Bus Pass Subsidy Program	\$82,846	\$9,712	288	\$33.69
<i>Walnut</i>	Bus Pass Subsidies	\$8,676	\$8,936	258	\$34.70
<i>Azusa</i>	Transit Pass Subsidy	\$14,488	\$14,923	344	\$43.43
<i>Corona</i>	Corona Cruiser Passenger Fare Subsidy	\$17,416	\$17,938	389	\$46.09
<i>Covina</i>	Commuter Choice Reimbursement Program	\$5,929	\$6,106	86	\$71.34
<i>Glendora</i>	Altcom - Public Transit Component	\$425	\$438	6	\$71.75
<i>Anaheim</i>	Metrolink OCTA	\$98,969	\$101,938	1,609	\$63.37
<i>Norwalk</i>	Employee Commuter Program	\$30,000	\$30,900	381	\$81.04
<i>Garden Grove</i>	Transit Subsidy Program (Metrolink & Bus)	\$10,166	\$10,471	97	\$108.49
<i>Laguna Beach</i>	Free Mainline Service during the Summer	\$18,468	\$19,022	174	\$109.08
<i>Laguna Beach</i>	Free Ride to Work Program	\$11,325	\$11,665	98	\$118.80
<i>Monrovia</i>	Discount Bus Pass Program	\$4,742	\$4,884	26	\$188.80
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>\$320,864</b>	<b>\$239,400</b>	<b>4,041</b>	<b>\$59.24</b>
		<b>Subcategory Summary</b>			
		<b>Category Summary</b>	<b>\$418,088</b>	<b>\$339,541</b>	<b>4,912</b>
<b>(5) Traffic Management</b>					
<b>(5a) Traffic Calming</b>					
<i>Costa Mesa</i>	East 19th Safe Route to School Project	\$2,124	\$213	33	\$6.44
<i>Rancho Santa Margarita</i>	Speed Feedback Signs	\$27,172	\$2,730	95	\$28.86
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>\$29,296</b>	<b>\$2,943</b>	<b>128</b>	<b>\$23.04</b>

<b>Project Category</b>	<b>Project Name</b>	<b>MV Fees</b>	<b>Air Funds* Amortized</b>	<b>Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)</b>	<b>Cost- Effectiveness (\$/lb)</b>	
<b>(5b) Traffic Flow or Signalization (timing, surveillance)</b>						
<i>Lake Forest</i>	Los Alisos Blvd Traffic Signal Synchronization	\$240	\$52	129	\$0.41	
<i>Lake Forest</i>	Santa Margarita Pkwy Traffic Signal Synchronization	\$1,310	\$286	625	\$0.46	
<i>Laguna Niguel</i>	Traffic Signal Coordination	\$21,643	\$4,726	7,777	\$0.61	
<i>Highland</i>	Signal Synchronization	\$19,715	\$4,423	6,281	\$0.70	
<i>Costa Mesa</i>	17th St. Traffic Signal Synchronization Project	\$3,061	\$668	753	\$0.89	
<i>Lake Forest</i>	Jeronimo Traffic Signal Synchronization	\$5,485	\$1,198	1,311	\$0.91	
<i>Lake Forest</i>	Trabuco Road Traffic Signal Synchronization	\$7,907	\$1,727	805	\$2.15	
<i>Lake Elsinore</i>	Citywide Traffic Signal Coordination Program	\$13,535	\$2,955	1,333	\$2.22	
<i>Costa Mesa</i>	Baker St./Placentia Ave. Traffic Signal Sync. Project	\$18,899	\$4,127	1,800	\$2.29	
<i>Laguna Hills</i>	El Toro/Ridge Route Rubberized Pavement	\$7,433	\$623	264	\$2.36	
<i>Costa Mesa</i>	Victoria St. Traffic Signal Synchronization Project	\$4,825	\$1,054	421	\$2.50	
<i>Loma Linda</i>	Signal Coordination	\$6,255	\$1,366	381	\$3.58	
<i>Costa Mesa</i>	Fairview Rd. Traffic Signal Synchronization Project	\$27,104	\$5,918	1,433	\$4.13	
<i>Moreno Valley</i>	Traffic Signal Coordination Program	\$10,774	\$11,097	1,603	\$6.92	
<i>Placentia</i>	Placentia Ave & Kraemer Blvd Signal Coordination	\$11,767	\$4,160	538	\$7.74	
<i>Riverside (City)</i>	Riverside Traffic Management Center	\$27,233	\$3,193	402	\$7.95	
<i>Costa Mesa</i>	Harbor Blvd. Widening	\$6,057	\$1,323	113	\$11.70	
<i>Costa Mesa</i>	Victoria St. and Valley Rd. Improvements	\$6,394	\$1,396	58	\$23.89	
<i>Costa Mesa</i>	West 19th St. Pedestrian Improvements	\$102,786	\$22,444	513	\$43.75	
<i>Costa Mesa</i>	Sunflower Ave. & Anton Blvd. Signal Improvements	\$19,206	\$4,194	33	\$126.93	
<i>Costa Mesa</i>	East 17th Street Intersection Improvements	\$150,000	\$32,753	134	\$244.92	
<i>Eastvale</i>	Limonite Traffic Signal Synchronization	\$35,858	\$7,830	30	\$257.05	
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>Subcategory Summary</b>	<b>\$507,488</b>	<b>\$117,511</b>	<b>26,738</b>	<b>\$4.39</b>
<b>(5c) Alternate Mode Signalization (transit/bike pre-emption)</b>						
<i>Costa Mesa</i>	Placentia Ave. & 20th St. Flashing Crosswalk	\$16,248	\$1,632	16	\$101.51	
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>Subcategory Summary</b>	<b>\$16,248</b>	<b>\$1,632</b>	<b>16</b>	<b>\$101.51</b>
		<b>Category Summary</b>	<b>\$553,032</b>	<b>\$122,087</b>	<b>26,881</b>	<b>\$4.54</b>

<b>Project Category</b>	<b>Project Name</b>	<b>MV Fees</b>	<b>Air Funds* Amortized</b>	<b>Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)</b>	<b>Cost- Effectiveness (\$/lb)</b>
<b>(6) Transportation Demand Management</b>					
<b>(6a) Employer-Based Trip Reduction</b>					
<i>Los Angeles (City)</i>	Bicycle Transit Incentive Program	\$32,739	\$33,721	298,166	\$0.11
<i>Monterey Park</i>	Rule 2202 Compliance Emission Credit Purchase	\$3,200	\$321	287	\$1.12
<i>Chino</i>	Participation in the Air Quality Investment Program	\$5,976	\$600	416	\$1.44
<i>Palm Springs</i>	Ride Share Incentive Program	\$7,911	\$8,148	1,638	\$4.97
<i>Costa Mesa</i>	Rule 2202 Implementation	\$4,390	\$4,522	773	\$5.85
<i>County of LA</i>	Countywide Trip Reduction Services/Outreach	\$404,073	\$416,195	63,377	\$6.57
<i>Monrovia</i>	Employer Commute Reduction Program (ECRP)	\$4,662	\$4,801	690	\$6.96
<i>Huntington Beach</i>	Employee Rideshare program	\$24,321	\$25,051	3,534	\$7.09
<i>Irvine</i>	Rule 2202 Credit	\$7,442	\$7,665	796	\$9.63
<i>Covina</i>	Commuter Rideshare Program	\$1,917	\$1,975	174	\$11.37
<i>Fontana</i>	City of Fontana Rule 2202 Rideshare Compliance Activities	\$8,152	\$8,397	674	\$12.46
<i>Newport Beach</i>	Employee Rideshare Program	\$6,980	\$7,189	561	\$12.81
<i>Torrance</i>	Employee Trip Reduction	\$146,649	\$151,048	11,506	\$13.13
<i>Monterey Park</i>	Employee Transportation Program	\$16,737	\$17,239	1,211	\$14.24
<i>Whittier</i>	Air Quality Investment Program	\$2,333	\$2,403	161	\$14.97
<i>Los Angeles (City)</i>	Carpool Program	\$135,124	\$139,178	9,056	\$15.37
<i>County of Orange</i>	Employee Rideshare Program	\$35,000	\$36,050	13,482	\$2.67
<i>Whittier</i>	Employee Rideshare	\$4,490	\$4,625	201	\$23.04
<i>Anaheim</i>	Trip Reduction Program	\$65,479	\$67,443	3,151	\$21.41
<i>Commerce</i>	Employer Based Trip Reduction	\$16,133	\$16,617	620	\$26.82
<i>Palm Desert</i>	City Rideshare Program	\$1,231	\$1,268	45	\$28.35
<i>County of San Bernardino</i>	Employee Commute Reduction Program	\$283,100	\$291,593	10,064	\$28.97
<i>Westminster</i>	Rideshare Program	\$19,259	\$19,837	560	\$35.42
<i>South Gate</i>	Employer Rideshare Program	\$2,648	\$2,727	69	\$39.46
<i>Corona</i>	City of Corona Carpool Program (12 vehicles)	\$19,374	\$19,955	504	\$39.62
<i>Santa Clarita</i>	RideShare	\$5,726	\$5,898	147	\$40.24
<i>Montebello</i>	Employee Commute Reduction Program	\$43,998	\$45,318	1,013	\$44.74
<i>Azusa</i>	Rideshare Financial Incentives	\$10,336	\$10,646	229	\$46.53
<i>Hawthorne</i>	Rideshare Incentives	\$2,290	\$2,359	50	\$47.13
<i>Carson</i>	Breathe-Employee Rideshare Program	\$19,210	\$19,786	393	\$50.32
<i>Glendale</i>	Employer Based Trip Reduction Program	\$242,931	\$250,219	4,860	\$51.49
<i>Los Angeles (City)</i>	Employee Vanpool Program	\$589,891	\$607,588	24,224	\$25.08
<i>Glendora</i>	Altcom - Carpool Component	\$6,296	\$6,485	114	\$56.76
<i>Redondo Beach</i>	Employee Rideshare	\$63,613	\$65,521	1,105	\$59.31

<b>Project Category</b>	<b>Project Name</b>	<b>MV Fees</b>	<b>Air Funds* Amortized</b>	<b>Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)</b>	<b>Cost- Effectiveness (\$/lb)</b>
<b>(6a) Employer-Based Trip Reduction (cont'd)</b>					
<i>Bell Gardens</i>	Alternative Transportation Program	\$69	\$71	1	\$59.64
<i>Orange (City)</i>	Trip Reduction Program	\$161,365	\$166,206	2,607	\$63.76
<i>Los Angeles (City)</i>	Employee transit subsidy	\$384,781	\$396,324	27,656	\$14.33
<i>Ontario</i>	Rideshare	\$31,490	\$32,435	481	\$67.38
<i>Burbank</i>	Burbank Commuter Program	\$130,657	\$134,577	1,896	\$70.98
<i>Cerritos</i>	Employee Rideshare Trip Rebate Program	\$34,436	\$35,469	469	\$75.55
<i>Compton</i>	Employee Commute Reduction Program (Rideshare)	\$65,045	\$66,996	733	\$91.37
<i>Stanton</i>	Alternative Commute Incentive	\$1,700	\$1,751	19	\$91.84
<i>San Bernardino (City)</i>	Employee Rideshare Program	\$65,997	\$67,977	708	\$96.04
<i>Garden Grove</i>	TDM Services	\$44,419	\$45,752	455	\$100.51
<i>West Hollywood</i>	Alternative Transportation Program	\$52,174	\$53,739	509	\$105.62
<i>Pasadena</i>	Prideshare	\$86,905	\$89,512	3,675	\$24.36
<i>County of Riverside</i>	Commuter Services Program	\$226,322	\$233,112	1,836	\$127.00
<i>La Verne</i>	Bike, Carpool, Walk, Incentive Program	\$10,258	\$10,566	77	\$136.42
<i>Santa Ana</i>	Blue skies Ride Share Program	\$104,301	\$107,430	775	\$138.71
<i>Upland</i>	Rideshare Activities	\$14,806	\$15,250	105	\$145.44
<i>Rialto</i>	Rideshare Program	\$76,519	\$78,815	493	\$159.77
<i>El Monte</i>	Monthly Rideshare Incentives	\$52,352	\$53,922	301	\$179.34
<i>Arcadia</i>	Rideshare Plus Program	\$19,322	\$19,902	111	\$179.59
<i>Rancho Cucamonga</i>	Employer Ride Share Program	\$18,793	\$19,357	102	\$188.99
<i>Claremont</i>	Employees Using Public Transportation- 2 Employees	\$1,939	\$1,997	9	\$212.22
<i>Glendora</i>	Altcom - Bicycle Component	\$2,180	\$2,246	9	\$263.15
<i>Baldwin Park</i>	Employee Transportation Program	\$2,635	\$2,714	38	\$71.10
<i>Downey</i>	Downey Employees "Thumbs Up" Commuting Program	\$112,823	\$116,208	358	\$324.53
<i>Montclair</i>	Rideshare Program	\$24,736	\$25,478	72	\$354.08
<i>Glendora</i>	Altcom - Walking Component	\$3,281	\$3,379	9	\$381.73
<i>Manhattan Beach</i>	Employee Rideshare Program	\$8,880	\$9,146	19	\$479.75
<i>Los Angeles (City)</i>	Walk Subsidy Program	\$22,307	\$22,976	85	\$271.04
<b>Subcategory Totals and Average Cost-effectiveness**:</b>	<b>Subcategory Summary</b>	<b>\$4,004,102</b>	<b>\$4,115,696</b>	<b>497,458</b>	<b>\$8.27</b>

Project Category	Project Name	MV Fees	Air Funds* Amortized	Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)	Cost- Effectiveness (\$/lb)
<b>(6b) Other Trip Reduction Incentive Programs</b>					
<i>Hermosa Beach</i>	AQMD Incentive to Reduce Auto Trips	\$2,370	\$2,441	45	\$53.91
<i>Duarte</i>	Transit Connect	\$3,730	\$3,842	1	\$3,281.94
<i>San Juan Capistrano</i>	Senior Nutritional Program Transportation	\$7,027	\$7,237	8	\$947.59
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>\$13,127</b>	<b>\$13,520</b>	<b>54</b>	<b>\$249.97</b>
<b>(6c) Vanpool Programs</b>					
<i>Garden Grove</i>	CNG Vanpool Program	\$38,520	\$39,676	377	\$105.32
<i>Anaheim</i>	Vanpool Program	\$90,100	\$92,803	352	\$263.39
<i>Garden Grove</i>	Vanpool Program Conventional Gasoline	\$51,360	\$52,901	86	\$617.44
<i>Westminster</i>	Vanpool Program	\$68,000	\$70,040	30	\$2,345.55
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>\$247,980</b>	<b>\$255,419</b>	<b>845</b>	<b>\$302.42</b>
<b>(6e) Telecommunication</b>					
<i>West Covina</i>	Website Design & Development	\$2,400	\$241	76	\$3.19
<i>Fullerton</i>	Wireless Connectivity for Field Employees	\$1,498	\$1,543	24	\$63.04
<i>County of Riverside</i>	Video Conferencing	\$76,310	\$78,599	211	\$372.12
<i>Agoura Hills</i>	Video Conferencing Equipment Rec/Event Ctr	\$60,000	\$61,800	2	\$34,219.08
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>\$140,208</b>	<b>\$142,184</b>	<b>313</b>	<b>\$454.18</b>
		<b>Category Summary</b>	<b>\$4,405,417</b>	<b>\$4,526,820</b>	<b>498,670</b>
					<b>\$9.08</b>
<b>(8) Bicycles</b>					
<b>(8a) Bicycle Lanes and Trails (also bridges)</b>					
<i>Temecula</i>	Pedestrian Bicycle Bridge	\$3,235	\$379	34	\$11.27
<i>Riverside (City)</i>	Santa Ana River Bike Trail at Martha McClean Park	\$14,001	\$941	31	\$29.95
<i>Brea</i>	The Tracks at Brea Trail Segment 2-3	\$50,000	\$33,608	1	\$65,512.95
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>\$67,236</b>	<b>\$34,928</b>	<b>66</b>	<b>\$532.60</b>
<b>(8c) Bicycle Usage (electric bikes, purchases, loaner projects)</b>					
<i>Orange (City)</i>	Bike Loan to Own Program	\$1,202	\$121	192	\$0.63
<i>Orange (City)</i>	Orange Police Bike Team	\$6,360	\$639	63	\$10.20
<i>Santa Clarita</i>	Bike to Work/Santa Clarita	\$150	\$155	10	\$15.60

<b>Project Category</b>	<b>Project Name</b>	<b>MV Fees</b>	<b>Air Funds* Amortized</b>	<b>Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)</b>	<b>Cost- Effectiveness (\$/lb)</b>
<b>(8c) Bicycle Usage (electric bikes, purchases, loaner projects) (cont'd)</b>					
<i>Los Angeles (City)</i>	LAPD Bicycle Patrol Bike Purchase Program	\$69,453	\$71,537	639	\$111.94
<i>Garden Grove</i>	Bicycle Loan Program	\$3,636	\$3,745	9	\$429.36
<i>West Hollywood</i>	Employee Bike Share Program	\$20,463	\$21,076	3	\$6,924.80
<b>Subcategory Totals and Average Cost-effectiveness**:</b>	<b>Subcategory Summary</b>	<b>\$101,263</b>	<b>\$97,272</b>	<b>916</b>	<b>\$106.23</b>
	<i>Category Summary</i>	<i>\$168,499</i>	<i>\$132,200</i>	<i>981</i>	<i>\$134.73</i>
<b>(9) PM Reduction Strategies</b>					
<b>(9a) Road Dust Control (paving roads, shoulders, street sweeping)</b>					
<i>Irvine</i>	CNG Sweeper Conversion	\$40,000	\$4,689	659	\$7.12
<i>Colton</i>	Citywide Street Sweeping	\$55,981	\$6,563	604	\$10.86
<i>Walnut</i>	Street Sweeping with CNG Sweeper	\$50,860	\$52,386	2,131	\$24.58
<i>Hawthorne</i>	Street Sweeping contract	\$100,000	\$103,000	3,425	\$30.07
<i>Loma Linda</i>	City Street Sweeping Program	\$16,300	\$1,911	58	\$32.74
<i>Indian Wells</i>	CVAG Regional PM10 Street Sweeping Program	\$3,803	\$3,917	52	\$74.69
<i>Palm Desert</i>	Regional PM10 Street Sweeping Program	\$37,532	\$38,658	516	\$74.91
<i>Indio</i>	Regional PM10 Street Sweeping Program	\$61,339	\$63,179	842	\$75.01
<i>Coachella</i>	CVAG Regional PM10 Street Sweeping Program	\$32,482	\$33,456	446	\$75.03
<i>Rancho Mirage</i>	Regional PM10 Street Sweeping Program	\$13,210	\$13,606	181	\$75.06
<i>Cathedral City</i>	Regional PM10 Street Sweeping Program	\$39,153	\$40,328	537	\$75.14
<i>Palm Springs</i>	CVAG Street Sweeping Program	\$34,344	\$35,375	471	\$75.16
<i>County of Riverside</i>	Regional PM10 Street Sweeping Program	\$37,045	\$38,156	507	\$75.29
<i>Desert Hot Springs</i>	Regional PM10 Street Sweeping Program	\$20,845	\$21,470	285	\$75.37
<i>La Quinta</i>	Regional PM10 Street Sweeping Program	\$29,057	\$29,929	293	\$102.09
<i>Desert Hot Springs</i>	Street Sweeping Program - Clean Street	\$59,030	\$60,801	491	\$123.73
<i>Moreno Valley</i>	Street Sweeping Program	\$178,366	\$183,717	852	\$215.65
<i>Lomita</i>	CNG Street Sweeping Services	\$15,000	\$15,450	213	\$72.49
<i>Norwalk</i>	Cleaner Street Sweeping Contract	\$87,564	\$90,191	695	\$129.72
<b>Subcategory Totals and Average Cost-effectiveness**:</b>	<b>Subcategory Summary</b>	<b>\$911,910</b>	<b>\$836,781</b>	<b>13,259</b>	<b>\$63.11</b>
	<i>Category Summary</i>	<i>\$911,910</i>	<i>\$836,781</i>	<i>13,259</i>	<i>\$63.11</i>

<b>Project Category</b>	<b>Project Name</b>	<b>MV Fees</b>	<b>Air Funds* Amortized</b>	<b>Emission Reductions ROG+NOx+PM2.5 +CO/7 (lbs/year)</b>	<b>Cost- Effectiveness (\$/lb)</b>	
<b>(11) Miscellaneous Projects</b>						
<b>(11a) Miscellaneous (use with "Miscellaneous Projects" Category)</b>						
<i>Los Angeles (City)</i>	Green Taxi Program	\$50,926	\$52,454	340,919	\$0.15	
<i>Los Angeles (City)</i>	ATSAC Control Center	\$1,170,385	\$1,205,497	11,463,860	\$0.11	
<i>County of Riverside</i>	Purchase of Mobile Source Emission Reduction Credits	\$123,403	\$127,105	15,698	\$8.10	
<i>West Covina</i>	Air Quality Investment Program (AQIP)	\$5,163	\$5,318	601	\$8.85	
<i>Fullerton</i>	Rule 2202 Emission Credits	\$22,164	\$22,828	1,516	\$15.05	
<i>Huntington Beach</i>	Emission credits and rule 2202 filing	\$12,443	\$12,816	800	\$16.02	
<i>Riverside (City)</i>	Project Dox	\$54,886	\$6,434	95	\$67.69	
<i>Yorba Linda</i>	Eagle Aerial - GIS Supplement	\$8,320	\$8,570	5	\$1,578.61	
<b>Subcategory Totals and Average Cost-effectiveness**:</b>		<b>Subcategory Summary</b>	<b>\$1,447,690</b>	<b>\$1,441,022</b>	<b>11,823,495</b>	<b>\$0.12</b>
		<b>Category Summary</b>	<b>\$1,447,690</b>	<b>\$1,441,022</b>	<b>11,823,495</b>	<b>\$0.12</b>
		<b>Program Summary</b>	<b>\$10,850,069</b>	<b>\$7,936,305</b>	<b>12,396,710</b>	<b>\$0.64</b>

\*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.

## Summary of Projects that Reported Cost-Effectiveness

Fiscal Year 2014 - 2015

<b>Motor Vehicle Fees</b>	\$10,850,069
<b>Air Funds (MV Fees + MSRC + Moyer)</b>	\$11,500,609
<b>Amortized Air Funds</b>	\$7,936,305
<b>Emission Reductions (lbs. per year)</b> (ROG + NOx + PM2.5 + CO/7)	12,396,710
<b>Average Cost-Effectiveness (dollars per lb.)</b>	\$0.64

This report includes only projects with cost-effectiveness greater than zero.

Cost-effectiveness is equals amortized Air Funds (MV Fees + MSRC + Moyer dollars) divided by  
ROG + NOx + PM2.5 + CO/7.

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 21

PROPOSAL: Annual Audited Financial Statements for FY Ended June 30, 2016

SYNOPSIS: This agenda item transmits the annual audited financial statements of the SCAQMD. The SCAQMD has received an unmodified opinion (the highest obtainable) on its financial statements.

COMMITTEE: Administrative, November 18, 2016; Recommended for Approval

**RECOMMENDED ACTION:**

Receive and file the SCAQMD's Comprehensive Annual Financial Report (CAFR), Schedule of Expenditures of Federal Awards and Single Audit Reports for the FY ended June 30, 2016.

Wayne Nastri  
Acting Executive Officer

MBO:SJ:lg

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**Background**

The audit of the SCAQMD financial statements, along with the Schedule of Expenditures of Federal Awards and Single Audit Reports for the Fiscal Year ended June 30, 2016, have been completed by Simpson and Simpson, CPAs. SCAQMD has received an unmodified opinion on its financial statements. An unmodified opinion is the highest obtainable, assuring interested parties that SCAQMD's financial statements fairly present the agency's financial position.

**Attachments**

- The Comprehensive Annual Financial Report (CAFR), which includes the Independent Auditor's Report, was previously provided to Board Members and is available for public viewing at SCAQMD's library or website at [www.aqmd.gov](http://www.aqmd.gov).
- Single Audit Reports that include Independent Auditor's Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of the Financial Statements Performed in Accordance with Government Auditing Standards, Independent Auditor's Report on Compliance with Each Major Program and on Internal Control over Compliance; and Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance. Copies were previously provided to Board Members and are available in SCAQMD's library for public viewing.

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 22

**PROPOSAL:** Status Report on Major Projects for Information Management  
Scheduled to Start During First Six Months of FY 2016-17

**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 2016-17.

**COMMITTEE:** No Committee Review

**RECOMMENDED ACTION:**  
Receive and file.

Wayne Natri  
Acting Executive Officer

JCM:MAH:OSM:agg

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### **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, 2016. Information provided for each project includes a brief project description, FY 2016-17 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, 2016

**ATTACHMENT**  
**December 2, 2016 Board Meeting**  
**Information Management Major Projects**  
**for the Period July 1 through December 31, 2016**

<b>Item</b>	<b>Brief Description</b>	<b>Budgeted Funds</b>	<b>Schedule of Board Actions</b>	<b>Status</b>
Systems Development, Maintenance, and Support	Provide development, maintenance and support for: <ul style="list-style-type: none"> <li>• Web application system development</li> <li>• eGovernment/eCommerce Infrastructure</li> <li>• CLASS systems maintenance</li> </ul>	\$373,000	July 8, 2016	Completed
Systems Development, Maintenance and Support	Provide development, maintenance and support for on line permitting systems implementation.	\$450,000	November 4, 2016	On Schedule
Information Technology Review	Authorize release of RFP for Information Technology review to help determine opportunities for hardware, system and software modernization.	TBD	Release RFP December 2, 2016; Award contract March 3, 2017	On Schedule
Network Core Switch and Router Replacement	Replace the existing voice and data network core switch and router, which is no longer fully supported by the manufacturer. The new core switch and router will deliver enhanced functionality with additional bandwidth and speed.	\$150,000	Release RFP October 7, 2016; Award contract January 6, 2017	On Schedule

Double-lined Rows - Board Agenda items current for this month

Shaded Rows - activities completed

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 24

REPORT: Administrative Committee

SYNOPSIS: The Administrative Committee met on Friday, November 18, 2016. The Committee discussed various issues detailed in the Committee report. The next Administrative Committee meeting is scheduled for Thursday, December 9, 2016 at 10:00 a.m.

RECOMMENDED ACTION:  
Receive and file.

Dr. William A. Burke, Chair  
Administrative Committee

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**Attendance:** Attending the November 18, 2016 meeting were Committee Vice Chair Ben Benoit 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. Dr. Burke appointed Dr. Joe Lyou, who participated at the SCAQMD Headquarters, to the Committee for the November 2016 meeting, until the arrival of the Vice Chair.

**ACTION/DISCUSSION ITEMS:**

1. **Board Members' Concerns:** None to report.
2. **Chairman's Report of Approved Travel:** As noted on the travel report, Councilmember Mitchell attended the monthly CARB Board meeting in Sacramento, November 16-17, 2016. Councilmember Mitchell added that she will also attend the monthly CARB Board meeting in Sacramento, December 8, 2016.
3. **Approval of Compensation for Board Member Assistant(s)/Consultant(s):** None to report.

4. **Report of Approved Out-of-Country Travel:** Ms. Sang-Mi Lee, Planning Program Supervisor, will present on urban dynamics and its impact on air quality and meteorology in Yongin, Korea, December 5-9, 2016, with expenses fully paid by the conference organizer.
  
5. **Amend Contract Under AB 1318 Mitigation Program in Coachella Valley:** Fred Minassian, Assistant Deputy Executive Officer/Science & Technology Advancement, reported that under the CPV Sentinel Mitigation Program, the City of Desert Hot Springs was awarded \$4,508,970 from AB 1318 funds, resulting in three projects: CNG station upgrade is completed with funds paid; solar installation is in progress; and dust control has a two-part component (paving of Cabot's Pueblo Museum parking lot which is completed and \$521,043 has been paid, and land stabilization for \$1,478,957, which the City hasn't been able to implement). Staff is recommending to amend the contract with the City of Desert Hot Springs to de-obligate \$1,478,957 and to amend the contract with Palm Springs USD to increase funding in the amount of \$1,602,073 for a solar project at a school located within a 6-mile vicinity of the Sentinel power plant. This funding is comprised of the unused funds from the City of Desert Hot Springs and \$123,116 from completed projects at lower costs.

Moved by Benoit; seconded by Mitchell, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

6. **Annual Audited Financial Statements for FY Ended June 30, 2016:** Michael O'Kelly, Deputy Executive Officer/Chief Administrative Officer, provided a brief background on the audited financial statements and introduced Melba Simpson of Simpson & Simpson, the CPA firm engaged to provide an opinion on the financial statements. Ms. Simpson gave a lengthy and detailed presentation on the annual audited financial statements, noting there were no deficiencies, no material weaknesses, and no instances of noncompliance, nor were there any disagreements with management on financial accounting and reporting matters. Councilmember Mitchell asked whether there is a plan to pay down the \$151 million unfunded pension liability. Mr. O'Kelly responded that the contribution rate increased due to the retirement system's requirement to pay off the liability. As liability has increased, contribution rates have increased by over double within the last seven years. Some of those costs should come down with pension reform that went into effect in 2013 as the newer employees have lower benefit formulas with caps. Councilmember Mitchell inquired what are the interest rates paid on the liability. Mr. O'Kelly responded 7.5% based on assumed earnings. Councilmember Benoit inquired what is the actual. Mr. O'Kelly responded it is only compounded when they earn 1%. Councilmember Mitchell inquired has it been considered to

substitute the debt at that interest rate with another form of payment, such as a bond? Mr. O’Kelly responded in the past, the liability was normally paid through pension obligation bonds, but in 2012, it was determined it wasn’t the best practice due to doubling down on a liability. Dr. Burke commented that this would need to be fixed by either that State or Federal Government, it’s beyond this agency. Dr. Burke commended the auditor and Mr. O’Kelly for their good work.

Moved by Benoit; seconded by Mitchell, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

7. **Transfer Appropriations from General Fund Salaries and Employee Benefits Major Object to General Fund Services and Supplies Major Object:** Mr. O’Kelly reported that this item is a mid-year budget item. There were some needs that were not recognized at the time the budget was created. It is requested to transfer \$600,000 from Salaries & Employees Benefits to Services & Supplies. \$300,000 is appropriated to Legislative & Public Affairs related to consultant work, legislative strategies, and communications issues that are related to the AQMP.

Moved by Mitchell; seconded by Benoit, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

8. **Issue RFP for Information Technology Review:** Mr. O’Kelly reported that the Board requested an information technology (IT) review and staff is requesting to be able to release the RFP. Councilmember Mitchell inquired what does the review entail? Assistant Deputy Executive Officer/Information Management Chris Marlia responded during the October Board, significant funds were being requested for permit automation and several Board Members wanted to ensure the appropriate technology, IT software and tools were used in light of considering the Bay Area’s system before starting the automation. This review is to understand the methods being used and if there are any improvements needed. Dr. Joseph Lyou commented that he recently spoke to Mr. Jack Broadbent, Executive Officer for the Bay Area AQMD, and Mr. Broadbent stated that he would not be able to provide the software without some consideration to remuneration since the cost was significant and his Board has express concern. Mr. Nastri confirmed this. Dr. Burke expressed disappointment since the ultimate goal is to serve the people. Moved by Benoit; seconded by Parker, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

9. **Amend Provisions of SCAQMD’s Salary Resolution and Labor Contracts with Teamsters Local 911 and SCPEA Relating to Vacation Leave Balances:** Mr. O’Kelly reported that due to operational needs, staff has been required to limit the use of vacation time this year. As a result, a number of employees will exceed the cap on vacation leave balances, which will result in their not being able to accrue vacation time or to be required to forfeit vacation hours accrued. Staff is requesting to not apply the 360-hour rule for this calendar year, but will reinstate the 360-hour rule the next calendar year.

Moved by Benoit; seconded by Mitchell, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

10. **Add and Delete Positions to Address Operational Needs:** Jill Whynot, Chief Operating Officer, reported that two position changes are being recommended to address operational needs; first, to assist with the Board’s legislative priorities, including components of the AQMP, it is recommended to add a Legislative Assistant position and delete a Staff Assistant position in the Legislative & Public Affairs/Media division. Second, to better align with permit streamlining and backlog reduction efforts, it is recommended to delete an Air Quality Analysis & Compliance Supervisor and replace that position with a Program Supervisor.

Moved by Parker; seconded by Benoit, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

11. **Recognize Revenue and Appropriate Funds for U.S. EPA PAMS and Near-Road Monitoring Programs, Amend Technical Support Contracts for U.S. EPA PAMS, and Issue RFQ and Purchase Orders and/or Contracts for CNG Vehicles and Air Monitoring and Analysis Equipment:** Dr. Matt Miyasato, Deputy Executive Officer/Science & Technology Advancement, deferred this item to Dr. Jason Low, Assistant Deputy Executive Officer/TAO, who reported that this item is to recognize and appropriate federal funds in the amount of \$825,643 for the appropriation and purchase of equipment and CNG vehicles for near-road monitoring and PAMS programs.

Moved by Parker; seconded by Benoit, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

12. **Transfer and/or Recognize Revenue and Appropriate Funding, Authorize Release of RFQ and Issue Purchase Orders:** Dr. Low reported that this action is to increase capability for special monitoring programs by purchasing new and updated laboratory instruments in the amount of \$218,000.

Moved by Benoit; seconded by Mitchell, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

13. **Establish List of Prequalified Legal Counsel to Provide Employee and Labor Relations Legal Services:** In the absence of General Counsel Kurt Wiese, John Olvera, Assistant Deputy Executive Officer/Human Resources, reported that this item is to establish a list of prequalified law firms to provide the SCAQMD with legal services in the areas of labor and employment law. After evaluation of the proposals, Legal Counsel is recommending six firms for the prequalified list. The firms will be assigned work based on their areas of expertise and on a case-by-case basis. Councilmember Mitchell inquired if the recommendation is to execute one-year contracts with all six firms. Mr. Olvera responded it is a one-year contract renewable over three years, but staff would only enter into contract as needed. There are a few firms that have existing contracts to which additional time and money will be added if necessary. The \$200,000 is the budgeted amount for the fiscal year for all contracts entered into.

Moved by Mitchell; seconded by Parker, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

14. **Recommend 2017 Legislative Goals and Objectives:** Deputy Executive Officer/Legislative, Public Affairs & Media/Public Advisor Derrick Alatorre reported that the State and Federal Legislative Goals & Objectives for 2017 are intended to assist the SCAQMD in meeting the federal and state Clean Air Standards within the South Coast region. Staff will be working with legislators in Sacramento and Washington, D.C., as well as the Administrations and state, federal and local agencies. The focus of the Goals and Objectives is to increase existing funding

and to identify new funding sources for clean air programs that will protect public health and help to secure the attainment of state and federal air quality standards; more importantly, to enable the incentive programs that are being proposed in the 2016 AQMP. Dr. Burke commented that SCAQMD's November 16, 2016 Environmental Justice conference in Los Angeles was exceptional, with a new format of breakout speakers and presentations. Councilmember Mitchell commented that with respect to the state legislative goals, the first item under state objectives is to find funding sources and promote incentives, the second item is related to providing the SCAQMD with sufficient authority; but the third item appears duplicative of the first two items where in the second and third line it is stated "or provide funding or regulatory authority," Councilmember Mitchell would like to add "and provide legislative support to the SCAQMD to implement these items." In addition, to promote clean air, the following additions are recommended: continuation of HOV stickers, higher DMV fees for high-polluting vehicles and lower fees or no fees for electric vehicles. Changing that one phrase to say "and to provide legislative support to the SCAQMD to implement our programs," would be an improvement.

Moved by Mitchell; seconded by Benoit, unanimously approved.

Ayes: Benoit, Mitchell, Dr. Parker, Dr. Burke  
Noes: None  
Absent: None

15. **Local Government & Small Business Assistance Advisory Group Minutes for the September 9, 2016 Meeting:** Mr. Alatorre reported this is a written report.
16. **Environmental Justice Advisory Group Minutes for the July 29, 2016 Meeting:** Mr. Alatorre reported this is a written report.
17. **Review December 2, 2016 Governing Board Agenda:** Dr. Burke commented that at the November 18, 2016 Stationary Source Committee, there was a request from the City of Newport Beach to revisit the beach burning (fire pit) rule. Any reconsideration must be made by the person who voted on the affirmative side and that did not happen. Dr. Burke is requesting that the Executive Officer put this item on the Board agenda for December with a staff presentation.

18. **Closed Session**

The Board recessed to closed session, as follows:

Pursuant to Government Code Section 54957, as specified below:

**PUBLIC EMPLOYEE EMPLOYMENT/APPOINTMENT**

Title: Executive Officer

Pursuant to Government Code Section 54957.6, as specified below:

**CONFERENCE WITH NEGOTIATORS** Agency Designated Representative: A.

John Olvera, Assistant Deputy Executive Officer/Administrative & Human

Resources Unrepresented Employee: Executive Officer

Following closed session, Assistant Deputy Executive Officer for Administrative and Human Resources announced that there were no reportable actions taken in closed session.

19. **Open Session**

Staff requested to pull this item from the agenda.

20. **Other Business:** None to report.

21. **Public Comment:** None to report.

Meeting adjourned at 2:21 p.m.

**Attachments**

Local Government & Small Business Assistance Advisory Group Minutes for the September 9, 2016 Meeting

Environmental Justice Advisory Group Minutes for the July 29, 2016 Meeting



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
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## LOCAL GOVERNMENT & SMALL BUSINESS ASSISTANCE ADVISORY GROUP FRIDAY SEPTEMBER 9, 2016 MEETING MINUTES

### MEMBERS PRESENT:

Ben Benoit, Council Member, City of Wildomar and LGSBA Chairman  
Janice Rutherford, Supervisor, Second District, San Bernardino County  
Felipe Aguirre  
Paul Avila, P.B.A. & Associates  
Geoffrey Blake, Metal Finishers of Southern California/All Metals  
LaVaughn Daniel, DancoEN  
John DeWitt, JE DeWitt, Inc.  
Bill LaMarr, California Small Business Alliance  
Rita Loof, RadTech International  
Cynthia Moran, Council Member, City of Chino Hills  
David Rothbart, Los Angeles County Sanitation District

### MEMBERS ABSENT:

Todd Campbell, Clean Fuels  
Maria Elena Kennedy, Kennedy Communications

### OTHERS PRESENT:

Mark Abramowitz, Board Member Assistant (*Lyou*)  
Ruthanne Taylor-Berger, Board Member Assistant (*Benoit*)  
Andrew Silva, Board Member Consultant (*Rutherford*)  
Mark Taylor, Board Member Consultant (*Rutherford*)

### SCAQMD STAFF:

Derrick Alatorre, DEO/Public Advisor  
Susan Nakamura, Acting ADEO  
Philip Crabbe, Community Relations Manager  
Connie Day, Program Supervisor  
Nancy Feldman, Principal Deputy District Counsel  
Elaine-Joy Hills, AQ Inspector II  
Lori Langrell, Secretary

### Agenda Item #1 - Call to Order/Opening Remarks

Mayor Ben Benoit called the meeting to order at 11:35 a.m.

Chair Benoit introduced Council Member Cynthia Moran as a new member of the LGSBA Advisory Group.

## **Agenda Item #2 – Approval of June 10, 2016 Meeting Minutes**

Vice Chair Benoit called for approval of the June 10, 2016 meeting minutes. The Minutes were approved unanimously.

## **Agenda Item #3 – Review of Follow Up/Action Items**

Mr. Derrick Alatorre advised the group of the following action items:

*Action Item: Email to LGSBA members the Quemetco community meeting notice  
This item was emailed to members on June 14, 2016*

*Action Item: Include in the report, to the extent possible, an overview of the disposition of the fee review cases.*

*A disposition summary of the Fee Review cases will be included in future SBA reports. As an example, below are the dispositions for the Fee Review cases in August as follows:*

*2 denied (reinstate permit; refund fee)*

*2 granted (refund fee; payment plan)*

*3 further research (refund fee, reissue permit, reinstate permit)*

Mr. Bill LaMarr inquired without disclosing names of the businesses, typically what type of companies apply to be heard by the Fee Review Committee. Mr. Alatorre replied that it could be an auto body shop, dry cleaner, and other small businesses. Although there was an instance where a very large company from Pasadena appealed to Fee Review due to an expired permit and a late renewal fee. Mr. LaMarr also asked if there was a threshold as to who can come before Fee Review Committee, and if it comes under the definition of 100 employees or less. Mr. Alatorre indicated that no company is excluded from coming to Fee Review, nor is there a restriction on number of employees.

## **Agenda Item #4 – AB1318 Mitigation Fee Projects**

Ms. Connie Day presented an update on the AB1318 Mitigation Fee Projects.

Mr. Paul Avila asked if the Federal and State land is separate, or do they overlap, and if it makes a difference if it's Indian gaming reservation land. Ms. Day replied that Torrez Martinez is not gaming land, but a community center. Torres Martinez is a tribal nation, and they were eligible to apply.

Mr. John DeWitt asked where all the money is coming from. Ms. Day indicated that the money came from the CVP power plant expansion in the City of Desert Hot Springs. They needed to build peaker plants and had to pay for emission offsets that would result from the construction and operations of those plants. Therefore, they provided 50 million dollars, staff went out with an RFP throughout the desert asking for projects that would offset the emissions generated by this power plant.

Mr. DeWitt asked if we are measuring the actual electrical bill savings. Ms. Day responded yes, that is what is reported to us. Mr. DeWitt further asked if we have results on previous solar projects that have been in place over a year. Ms. Day replied we do but not as part of this program. Mr. DeWitt inquired for results that have measured the actual dollars, the reduction in the power bill versus the solar, what the payoff on the investment is, and if we are getting a return. Ms. Day stated yes we are getting a return. She further indicated that staff had a presentation in one of the other committees from the school district, which talked about the amount of savings that they had.

*Action Item: Ms. Connie Day will provide a copy of the previous presentation to the LGSBA Advisory Group members.*

Mr. LaMarr asked how these projects are selected, and if cost effectiveness enter into the project. Ms. Day indicated these are a one-time program, with the money coming from the power plant, with a set amount of emission reductions that have to be reduced to meet what is being produced by the power plant. The overall projects will far exceed what the power plant is going to put out because of economies of scale that is occurring. When we take individual money and do these projects, the reductions in emissions are greater than they are supposed to be reducing. The original analysis was done based on the perceived effectiveness of the projects, location of the projects, and the cost effectiveness, which were incomparable. Ms. Day further indicated it isn't public money being used, and is not subject to regulation. Based on the public announcement that went out, these are the monies available, here is the emissions we want to reduce, and we want that benefit to go out to the Coachella Valley. Because it was open, there was a balance of all the different projects to be able to get the money into the various areas as required by the Governing Board, to meet the emission reductions and spend those funds.

Mr. LaMarr commented throughout Coachella Valley, he finds it hard to believe that elected officials couldn't prioritize what the needs are, emission related. Chair Benoit replied he toured those mobile home parks and can't describe how horrible they are, from many Environmental Justice (EJ) and fiscal perspectives. If the owner knew the tenant had a new job, they would increase the water bill from \$100 to \$500 overnight, those type of raw problems, and on top of that when you can't use the water because of high levels of arsenic. I can't begin to tell you how happy people were just to get paved roads in the RV parks. Regarding elected officials out there, Chair Benoit believes it was an area underserved for decades, scoring high from an EJ standpoint. While it's probably not the best offset of tonnage per dollar the impact it made on those communities out there that are still severely economically depressed, they can at least drive home now and not have a lot of dust in the air.

Mr. LaMarr asked if there are other considerations besides air quality. Chair Benoit replied yes, there are other issues raised in the area, and this area that is so underserved; one can literally drive 20 minutes into town (Indian Wells) where it is the highest per capita income. With regard to weatherization, there is a difference between older and newer homes and mobile homes. Ms. Day replied that they are not able to weatherize mobile homes, as they do not have an attic, and the weatherization is done in the home's attic.

Mr. Avila asked if you could measure emissions reduction once asphalt is down on the paving projects. Ms. Day indicated it was emissions measurement based on unpaved area, and once paving is done we can measure what's occurring out there with monitors.

Ms. Cynthia Moran inquired what the signal synchronization project is. Ms. Day replied signal synchronization reduces the emissions based on the loss of stop and go traffic, but keeping the flow going, it is a long time program that is used often. There are older vehicles that are dirty, and this helps to keep them from sitting and idling. Chair Benoit added that Los Angeles used AB2766 money on signal synchronization and it has been very successful.

#### **Agenda Item #5 – Update on State Budget and Legislation**

Mr. Philip Crabbe provided an update on the State Budget, focusing on the Greenhouse Gas Reduction Fund (GGRF) and other legislative issues.

Mr. Avila asked pertaining to members of a legislative joint committee, if there are any requirements that they be knowledgeable about air quality issues. Mr. Crabbe indicated he did not know.

Mr. Avila asked if there is any way we can get a representative from the cap and trade group to give a presentation on how it works. Mr. Alatorre replied he will reach out and seek a presentation as a follow up item, but cannot state when or if they will be able to come.

***Action Item:** Agendize a presentation to how cap and trade works.*

Mr. Avila asked Ms. Nancy Feldman regarding AB1903, what conclusion will come out of it if next year it resurrects itself. Ms. Feldman indicated the bill was designed for OEHHA to study the long term effects of methane and mercaptans on health. The legislation did fail, but the requirement for SoCal Gas to fund a health study is at an impasse. The district has filed a Petition for Declaratory Relief in Superior court, and we are hoping to have a hearing early next year as to the requirement to do the study.

**Agenda Item #6 – Overview of CCP Unpermitted Business Outreach Efforts in the Boyle Heights Area in 2012**

Ms. Susan Nakamura provided a presentation on SCAQMD's efforts in identifying unpermitted facilities in the Boyle Heights area.

Mr. LaMarr commented he was never a big advocate of the Clean Communities Plan (CCP), the original plan marching down the street going into a community public outreach meeting, hearing complaints from people, and visiting businesses. He also stated that he also had a number of conversations with Council Member Huizar on this, trying to get the point across to him that a lot of businesses in the Boyle Heights area are unlicensed doing business, or are businesses that do not require a permit. Mr. LaMarr indicated that he was glad to see that we are doing a review of businesses, street by street. If the district is still going to go forward with the CCP program, Mr. LaMarr encouraged that we continue to inventory these businesses, and that he would still like to be a part of that program.

Supervisor Janice Rutherford inquired whether we have any data that says this outreach resulted in pollution reduction. Ms. Nakamura indicated that as part of the CCP program, pilot studies were conducted, we worked with and met with community representatives and stakeholders, and became intimate with the communities who were able to identify issues unique to their area. Some businesses had reductions associated with the program, and this particular program's concern was for leveling the playing field. Some folks were compliant, others were not. We may have a facility or two that now have a permit with no emissions reductions associated with it. In Boyle Heights, the issue is lead. We were moving forward with and asking community to rank the issues, and we worked from that list.

Supervisor Rutherford asked if there are any plans on doing a similar program in San Bernardino. Ms. Nakamura indicated that a program in San Bernardino ran simultaneously as Boyle Heights, and while there was some commonality, San Bernardino ranked their own issues differently. The overwhelming theme in San Bernardino were the railyards and proximity of homes near busy highways. A lot of weatherization projects were completed in homes near busy highways. We have a targeted air shed grant finishing up, and will wrap up the pilot studies for both areas, and make up a template for other cities' use.

Mr. LaMarr asked that we share with Supervisor Rutherford the ENRRICH study (by Dr. Soret), which came out of the CCP project, focusing on the extent of pollutants and toxic air contaminants from the

railyard. Ms. Nakamura summarized the contract with Loma Linda University Medical Center to look at the health effects of pollution, conduct interviews, and look at a variety of different health metrics. Ms. Nakamura indicated some very interesting things came out of the study as we were dealing with Dr. Soret's underlying concerns with regard to diesel sources, and railyard emissions. As a result, we were able to meet with families concerning how to address asthma, proper use of inhalers, etc.

**Agenda Item #7 –Monthly Report on Small Business Assistance Activities**

No comments.

**Agenda Item #8 - Other Business**

Mr. David Rothbart commented on his appreciation for the draft Board agenda, and noted there is an item about BACT guidelines. He indicated that, as a member of the BACT Scientific Review committee, was surprised that it is going to Stationary Source Committee and to the Board because their comments have not been incorporated, documented, and given back to the committee members. If it is something of concern, maybe directing staff back to the committee would be appreciated.

Ms. Loof echoed Mr. Rothbart's comments, stating she also found out about the May BACT Scientific Review Committee meeting after the fact and was actually working with staff to provide information. She further stated that she did not provide the information yet because she was unaware that it was going to the Board and would appreciate the time to get the information together. Ms. Loof stated that the BACT issue has been going on for many years, and the committee has not met for many years. She has not heard of the BACT Scientific Review Committee, so was surprised to find out it happened in May, and was more surprised to find out that it is going to Stationary Source Committee.

**Agenda Item #9 - Public Comment**

No comments.

**Adjournment**

The meeting adjourned at 12:41 p.m.



# South Coast Air Quality Management District



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## ENVIRONMENTAL JUSTICE ADVISORY GROUP FRIDAY, JULY 29, 2016 MEETING MINUTES

### **MEMBERS PRESENT:**

Dr. Joseph Lyou, SCAQMD Governing Board, EJAG Chairman  
Alycia Enciso, Small Business Owner, San Bernardino  
Angelo Logan, East Yard Communities for Environmental Justice/Urban and Environmental Policy Institute, Occidental College  
Daniel Morales, National Alliance for Human Rights  
Dr. Afif El-Hasan, American Lung Association  
Evelyn Knight, Long Beach Economic Development Commission  
Jill Johnston, University of Southern California  
Judy Bergstresser, Member of the Public  
Larry Beeson, Loma Linda University, School of Public Health  
Manuel Arredondo,  
Mary Figueroa, Riverside Community College  
Myron Hale, SLMQM  
Rafael Yanez, Member of the Public  
Rhetta Alexander, Valley Interfaith Council

### **MEMBERS ABSENT:**

Arnold Butler, Inglewood Unified School District Board  
Brenda Threatt, First African Methodist Episcopal (AME) Church  
Lizette Navarrete, University of California, Riverside  
Maria Elena Kennedy, Quail Valley Task Force  
Micah Ali, Compton Unified School District  
Pastor Raymond Turner  
Pat Kennedy, Greater Long Beach Interfaith Community Organization  
Paul Choe, Korean Drycleaners & Laundry Association  
Rudy Gutierrez, Community Representative, Coachella Valley  
Suzanne Bilodeau, Knott's Berry Farm  
William Nelson, OC Signature Properties  
Woodie Rucker-Hughes, NAACP - Riverside Branch

### **OTHERS PRESENT**

Andy Silva, County of San Bernardino  
Cassie Cuaresma, Southern California Edison  
David Czamanske, SCAQMD Board Assistant for Michael Cacciotti  
Julie Arthur, Palm Springs Unified School District

Tom Gross, Southern California Edison  
Vallerie Gonzalez, Center for Sustainable Energy

**SCAQMD STAFF**

Angela Garcia, Office Assistant  
Daniela Arellano, Senior Public Information Specialist  
Derrick Alatorre, Deputy Executive Officer  
Fred Minassian, Assistant Deputy Executive Officer  
Henry Hogo, Assistant Deputy Executive Officer  
Marc Carrel, Program Supervisor  
Michael Krause, Planning & Rules Manager  
Nicholas Sanchez, Sr. Deputy District Counsel

**Agenda Item #1: Call to Order/Opening Remarks**

Dr. Joseph Lyou called the Environmental Justice Advisory Group meeting to order at 12:02 PM, and announced Governor Brown's Sustainable Freight Action Plan. He welcomed Dr. Jill Johnston and Mr. Manuel Arredondo as the newest EJAG members, and congratulated Mr. Derrick Alatorre for being promoted to Deputy Executive Officer for the Legislative, Public Affairs, and Media Department (LPAM).

**Agenda Item #2: Approval of April 29, 2016 Meeting Minutes**

Dr. Lyou approved the meeting minutes with no objections.

**Agenda Item #3: Review of Follow-Up/Action Items**

Mr. Derrick Alatorre reviewed the action items requested during the April 29, 2016 meeting.

1. **Action Item:** Agendize Andrea Hricko's EJAG replacement in the next Administrative Committee Agenda.
  - Dr. Lyou nominated Dr. Jill Johnston to replace Andrea Hricko. Dr. Johnston became an EJAG Member on July 22, 2016. Mr. Manuel Arredondo from the Coachella Valley was also approved as a new EJAG Member.
2. **Action Item:** Mr. Yanez received complaints about the off gassing and toxic odors produced by Valmont Coatings' operations in Los Angeles. He recommended SCAQMD review the company's permit as he believes it needs to be updated. Dr. Lyou requested that Mr. Yanez send Mr. Alatorre an email with the details of the issue for follow up.
  - Mr. Alatorre will speak to Mr. Yanez as Mr. Alatorre has not yet received information from Mr. Yanez.
3. **Action Item:** Dr. Lyou requested that staff deliver a presentation regarding opportunities for clean freight.
  - SCAQMD staff presented on opportunities for Clean Freight.
4. **Action Item:** EJAG members requested that staff follow up on the communities' concerns as expressed during workshops for the Environmental Justice Community Partnership. Dr. Lyou requested that staff provide EJAG with an update on this topic.
  - Staff is in the process of putting together an environmental justice action plan, based on the communities' feedback during the Environmental Justice

Community Partnership Workshops. Staff will return to each county to update community members about the plan and to get feedback. The plan will be posted online and will be distributed to interested parties.

**Agenda Item #4: Member Updates**

Mr. Manuel Arredondo introduced himself to EJAG members. He also expressed his desire for SCAQMD to communicate better with communities in Coachella Valley.

Mr. Daniel Morales expressed his concern with the increase in commercial facilities and truck traffic in South Colton. He is requesting more air monitoring in the area. He met with Ms. Nicole Nishimura, Michelle Warner and Councilman Frank Navarro to discuss these issues.

Jill Johnston introduced herself to other EJAG members and provided them with information about her background.

Dr. Afif El Hasan announced the American Lung Association is supporting the Charge Ahead Coalition, to expand the availability of zero emission transportation and other clean air transportation options in environmental justice communities. He added that Kaiser Permanente is opening “Health Hubs” in disadvantaged communities, where people can congregate and obtain community services.

Ms. Evelyn Knight gave an update on the Southern California International Gateway (SCIG) and expressed her satisfaction with the judge’s decision on this project, which ruled in favor of the community.

Mr. Angelo Logan announced he is working on a national campaign to reduce freight emissions. He indicated the U.S. Environmental Protection Agency (EPA) committed to creating a working group on goods movement that will help develop an agency wide plan to focus on freight, environmental justice communities, and zero emissions.

Mr. Alatorre announced all EJAG meetings would be webcast, in an effort to be more transparent with the public and to increase public participation.

**Agenda Item #5: Southern California Edison (SCE) Company’s Charge Ready Program**

Ms. Cassie Cuaresma spoke about Southern California Edison Company’s (SCE) Charge Ready Program, and expressed her desire to collaborate with EJAG members to promote the program in disadvantaged communities.

Mr. Logan, Ms. Alicia Enciso, and Dr. Lyou asked for clarification on application requirements, metrics, and outreach efforts. Dr. Lyou requested that SCAQMD staff share information about the Replace Your Ride Program, to learn more about the demographics of the individuals who are purchasing new or used electric vehicles.

**Action Item:** Share applicants’ demographic information with EJAG members, regarding the Replace Your Ride Program.

Ms. Knight asked about the user-friendliness of the electric vehicle (EV) chargers and potential problems that users could encounter. Ms. Cuaresma replied SCE has standards that chargers have to meet, in terms of safety and usability.

Mr. Logan recommended there be a requirement for applicants to maintain the EV chargers throughout the duration of the contract, to ensure the public can truly benefit from the program.

Mr. Rafael Yanez asked if fast chargers will be incorporated into the pilot program. Ms. Cuaresma indicated SCE only included level one and level two chargers because not all vehicles can accommodate fast charging technology.

Dr. El Hasan asked if the energy grid can handle the number of fast charging vehicles entering the market. Ms. Cuaresma indicated SCE's forecasting team conducts projections for the next 40 years to identify the number of vehicles the energy grid can handle. Mr. Tom Gross from SCE said excess generation from midnight to 6:00 AM could help.

#### **Agenda Item #6: 2016 Air Quality Management Plan (AQMP)**

Mr. Michael Krause presented on the 2016 Air Quality Management Plan (AQMP).

Ms. Judy Bergstresser, and Ms. Alexander asked for clarification on baselines and incentives.

Mr. Logan inquired about MOBs, incentives, the state implementation plan, and backstop issues. He also suggested companies should include the cost of cleaner technology and equipment in the cost of doing business, as opposed to obtaining public/government money. Mr. Logan then asked how conversations from EJAG meetings are used to make decisions at the board level and added that SCAQMD should start focusing on indirect source rules, especially for rail yards and intermodal facilities.

Mr. Yanez stated SCAQMD's permitting is behind on VOC and NOx emitting industries, and would like to see more staff assigned to these issues. He also wants anaerobic digesters to be avoided or reduced, and reclaimed water to be used to mitigate dust while accounting for runoff. Mr. Henry Hogo clarified that methane and CO2 are greenhouse gas issues, and the AQMP focuses on criteria pollution.

Ms. Alexander announced she received a letter from environmental justice organizations that was directed at Governing Board Members regarding the AQMP, which outlined seven principles to be considered when finalizing the plan. The letter included organizations such as the American Lung Association, National Resources Defense Council, Inland Congregations United for Change, Coalition for Clean Air, Sierra Club, and Physicians for Social Responsibility among others. She encouraged other EJAG members to join in the efforts, as the letter specifically asks for the AQMP to include measures for compliance and efforts that protect low income communities. SCAQMD staff made copies of the letter and distributed the letter among EJAG members.

Mr. Arredondo stated the AQMP has a well-balanced approach but believes public transportation is important. He suggested the plan should also include a public outreach strategy. Mr. Krause informed Mr. Arredondo about the socioeconomic assessment which will be included in the AQMP.

Mr. Logan emphasized the need from for third party enforcement, and Ms. Alexander emphasized the need for job creation opportunities related to renewable energy.

**Agenda Item #7: AB1318 Mitigation Fee Projects**

Mr. Fred Minassian provided an update on the AB1318 Mitigation Fee Projects, which included the installation of solar panels at schools within the Palm Springs Unified School District. Ms. Julie Arthur, Executive Director of Facilities and Planning for the Palm Springs Unified School District, also delivered a presentation on the details of the projects in her school district.

Mr. Minassian concluded the presentation with a short video of the Riverside Paving Project, featuring Boardmember John. J. Benoit. More specifically, the Mobile Home Paving Project helped pave more than nine miles in 34 mobile home communities, resulting in improved access to homes, easier access to public transportation, and a decreased risk of respiratory problems.

**Agenda Item #8: Opportunities for Clean Freight**

Mr. Henry Hogo talked about opportunities for clean freight and made note of Governor Brown’s approval of the Sustainable Freight Action Plan.

**Agenda Item #9: Public Comment Period**

There were no public comments.

**Agenda Item #10: Adjournment**

The meeting adjourned at 3:50 PM

**Next Meeting: October 28, 2016**

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 25

REPORT: Investment Oversight Committee

SYNOPSIS: The Investment Oversight Committee met Friday, November 18, 2016 and discussed various issues detailed in the Committee report. The next Investment Oversight Committee meeting is scheduled for Friday, February 17, 2017 at 12:00 noon in Conference Room CC2.

RECOMMENDED ACTION:  
Receive and file this report.

Michael Antonovich, Chair  
Investment Oversight Committee

MBO:lg

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**Attendance:** Present at SCAQMD Headquarters were Committee members Gary Burton, Dr. Joseph K. Lyou and Brent Mason. Supervisor Michael Antonovich and Mayor Pro Tem Michael Cacciotti attended by teleconference. Absent were Vice Chair Dr. William Burke, Richard Dixon and Supervisor Shawn Nelson.

**Investment Committee Action Items:**

Quarterly Report of Investments: The Committee reviewed the quarterly investment report that was provided to the Board. For the month of September 2016, the SCAQMD's weighted average yield on total investments of \$559,162,693 from all sources was .99%. The allocation by investment type was 92.99% in the Los Angeles County Pooled Surplus Investment Fund (PSI) and 7.01% in the State of California Local Agency Investment Fund (LAIF) and Special Purpose Investments (SPI). The one-year Treasury Bill rate as of September 30, 2016 was .59%.

*Moved by Antonovich; seconded by Cacciotti; unanimously approved.*

*Ayes: Antonovich, Burton, Cacciotti, Lyou, Mason*

*Noes: None*

*Absent: Burke, Dixon, Nelson*

Calendar Year 2017 Committee Meeting Dates: For CY 2017, quarterly Investment Oversight Committee meeting dates are Friday, February 17; Friday, May 19; and Friday, November 17. The August quarterly meeting has been cancelled in conjunction with the cancellation of all SCAQMD Board and Committee meetings during the month of August 2017.

*Moved by Lyou; seconded by Mason; unanimously approved.*

*Ayes: Antonovich, Burton, Cacciotti, Lyou, Mason*

*Noes: None*

*Absent: Burke, Dixon, Nelson*

### **Investment Committee Discussion Items:**

Cash Flow Forecast: Michael O'Kelly reported on the cash flows for the current year and projected for the next three years. SCAQMD Investment Policy limits its Special Purpose Investments to 75% of the minimum amount of funds available for investment during the Cash Flow Horizon. That limit, which includes all funds (General, MSRC, Clean Fuels), is \$152.2 million. Current Special Purpose Investments are well below the maximum limit.

Financial Market Update: Sarah Meacham from PFM Asset Management provided the Committee with information on current investment markets, economic conditions, and the overall outlook. She presented market information on the recent increased Treasury yields, modest steepening of the Treasury yield curve, lower corporate yield spreads, and wide spreads between commercial paper/CD's and Treasuries. Economic indicators were also presented showing increased third quarter economic growth, growth in the labor market, national unemployment rate of five percent, slowly increasing inflation, and strong market expectations for a Federal Funds Target Rate hike.

**Other Business:** None

**Public Comment:** None

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 26

REPORT: Mobile Source Committee

SYNOPSIS: The Mobile Source Committee met on Friday, November 18, 2016. Following is a summary of that meeting. The next Mobile Source Committee meeting is scheduled for Friday, January 20, 2017 at 9:00 a.m.

RECOMMENDED ACTION:  
Receive and file.

Dr. Clark E. Parker, Sr., Chair  
Mobile Source Committee

PMF:afm

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### **Attendance**

Committee Chair Dr. Clark E. Parker, Sr. attended via videoconference. Committee Members Dr. Joseph Lyou and Judith Mitchell attended at SCAQMD headquarters. Dr. Burke, who attended via videoconference, was appointed as a one-time Committee Member for this meeting. Committee Members Shawn Nelson and Larry McCallon were absent. Dr. Parker called the meeting to order at 9:02 a.m.

### **ACTION ITEMS:**

#### **1) Approve Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2014-15**

Kathryn Higgins, Program Supervisor, presented on this item, summarizing local government financial and program implementation activities that occurred during FY 2014-15. Ms. Higgins gave an overview of the program cycle noting the respective roles of the Department of Motor Vehicles, SCAQMD, local government fund recipients, and CARB. She noted that the AB 2766 statute was signed into law in 1990, and that it authorizes a \$4 motor vehicle registration fee surcharge, of which 40% of registration funds is subvented to local governments to implement projects

that reduce mobile source emissions. She reported that 368 projects were funded, resulting in the overall reduction of 6,197 tons of NO<sub>x</sub>, VOC, PM<sub>2.5</sub> and CO/7, with an average cost- effectiveness of \$0.64/lb.

Dr. Burke asked for clarification about the maximum amount of Subvention Funds that the statute allows to be used for this program. Veera Tyagi, Sr. Deputy District Counsel, responded that legislative action would be required to increase the current designation. Dr. Parker asked for clarification about the remaining 60% of funds beyond the 40% designation, to which Ms. Higgins noted that 30% is directed to SCAQMD for planning purposes, and 30% to the MSRC to fund various emission reduction activities. Ms. Higgins also explained the auditing process, at Dr. Parker's request. Dr. Lyou encouraged tracking of the program's improvement from year to year. He also requested that staff include a metric which identifies reductions of specific pollutants versus combined pollutant reductions. Councilmember Mitchell inquired about local government's ability to charge for the use of EV infrastructure installed with program funds, and how monetary earnings are accounted. John Kampa, Financial Analyst, responded that funds earned using program dollars must be directed back into the jurisdictions' AB 2766 special revenue fund and are to be used only for eligible spending activities. Dr. Philip Fine, Deputy Executive Officer/Planning, Rule Development and Area Sources, responded to Dr. Parker's questions about the role of VOC in ozone formation, noting that current air pollution science identifies NO<sub>x</sub> as having the predominant impact in the chemical process of ozone formation. In response to Councilmember Mitchell's final comments about having SCAQMD guidelines for local governments, Wayne Natri, Acting Executive Officer responded that staff would welcome her assistance as a liaison between SCAQMD and CARB to strengthen current program guidelines. Ms. Mitchell encouraged staff to do more outreach to local governments; Ms. Higgins affirmed that outreach is continuing, while noting that the turnover in local government staff is quite high, often compromising long-term improvements.

Yvonne Watson, a member of the public, expressed her concern about local government funds, such as AB 2766, being allocated for specific expenditures, but being inappropriately redirected for other uses or traded with other cities. Staff responded that local governments have the flexibility to use funds as they deem appropriate under the guidelines, but that the selling or trading of AB 2766 funds is not permissible. Staff confirmed that the SCAQMD handles potential misuse of funds through the audit process.

*Moved by Lyou; seconded by Mitchell; unanimously approved.*

*Ayes: Lyou, Mitchell, Parker, Burke*

*Noes: None*

*Absent: McCallon, Nelson*

## 2) Issue Program Announcement for Leaf Blower Exchange

Vasken Yardemian, Senior Staff Specialist, presented the program announcement for the Leaf Blower Exchange program. Dr. Parker asked if this program can be approved by the Board without identifying a specific amount of funding. Staff responded that the amount of the program will be determined based on the proposals that will be received and will be presented to the Committee for approval at a later date. Dr. Burke asked about the number of commercial leaf blowers in the District. Staff responded that they will look into the matter; however, there are 16 million lawn and garden equipment in the State of California and CARB is amending their Small Off-Road Engine regulation that includes lawn and garden equipment. Dr. Burke was concerned about outreach efforts to smaller, “mow and blow” lawn & yard services regarding this program. He proposed to look at ways to create tailored economic incentives for them and asked if there were any trade groups through which SCAQMD could reach them. Staff responded that they will look into the matter.

There were no public comments on this item.

*Moved by Lyou; seconded by Mitchell; unanimously approved.*

*Ayes: Lyou, Mitchell, Parker, Burke*

*Noes: None*

*Absent: McCallon, Nelson*

## **INFORMATIONAL ITEM:**

### 3) Overview of Activities to Establish New Ultra Low-NOx On-Road Heavy-Duty Engine Emission Standards

Henry Hogo, Assistant Deputy Executive Officer/Science & Technology Advancement, provided an update on the petition to U.S. EPA to develop a national ultra-low NOx on-road heavy-duty engine emission standards. The petition was submitted to U.S. EPA in June 2016 and to-date, there are 19 co-petitioners representing state and local air agencies, one environmental organization, and CAPCOA. There are eight letters of support for the petition including the California Air Resources Board, CCEEB, the Ports of Los Angeles and Long Beach, Southern California Gas Company, Southern California Edison, Placer County Air Pollution Control District, and BYD Motors. The environmental community provided a joint letter of support for a nationwide ultra low-NOx standard. U.S. EPA indicated in its Final Rule for the Phase 2 Greenhouse Gas Emissions from Medium- and Heavy-Duty Engines and Vehicles that they would start a process to engage the petitioners

and other stakeholders on the need for a nationwide standard. The petitioners and supporters had a conference call with U.S. EPA as part of this process. Mr. Hogo indicated that a response to the petition will be forthcoming potentially in December 2016. Mr. Nastri commented that he had spoken with U.S. EPA that morning regarding the status of the response, and reminded U.S.EPA that precedent already exists to move forward with rulemaking, even with a change in administration. Mr. Nastri indicated that U.S. EPA is currently going through internal review on a draft response and may respond in early December.

Dr. Lyou asked if the combination of technologies addresses the issue of higher NOx emissions from diesel engines during low temperature operation. Mr. Hogo indicated that the combination of technologies that will likely be feasible to meet the ultra-low NOx standard are expected to address this issue. CARB is planning a second phase of their research focusing on this issue. Dr. Lyou indicated that we need to keep this issue in mind as new diesel engines are developed.

Mr. Hogo discussed the activities at the state level. CARB has initiated the state rulemaking process with a public workshop held on November 3, 2016 at the SCAQMD Headquarters. CARB staff indicated that their proposed regulations are scheduled for CARB Board adoption in 2019 with implementation beginning in 2023. Mr. Hogo indicated that given the uncertainties at the federal level, it is more important for CARB to adopt state standards.

Dr. Lyou commented that he is not as confident as staff that U.S. EPA will adopt a national standard and asked what recourse the agency has if the U.S. EPA does not act. Mr. Nastri reiterated that he is continuing to push U.S. EPA to move forward and that the coalition that is being developed can put additional pressure. Ms. Tyagi indicated that District Counsel will work on a “decision tree” outline on what actions could be taken and will advise the Board.

Dr. Parker asked what happens to state programs if the federal government does not move forward; for example, the climate regulations. Ms. Tyagi indicated that state regulations will stay in place. Councilmember Mitchell commented that at the CARB Board meeting, Chair Mary Nichols indicated that California will continue with its greenhouse gas programs.

There were no public comments on this item.

**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 COMMENTS:**

None

The meeting was adjourned at approximately 10:42 a.m.

**Attachment**

Attendance Roster

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
MOBILE SOURCE COMMITTEE MEETING  
Attendance Roster – November 18, 2016**

Dr. Clark E. Parker (videoconference) .....	SCAQMD Governing Board
Dr. William Burke (videoconference) .....	SCAQMD Governing Board
Dr. Joseph Lyou .....	SCAQMD Governing Board
Councilmember Judith Mitchell .....	SCAQMD Governing Board
Board Consultant Mark Abramowitz .....	SCAQMD Governing Board (Lyou)
Board Consultant David Czamanske .....	SCAQMD Governing Board (Cacciotti)
Board Consultant Ron Ketcham .....	SCAQMD Governing Board (McCallon)
Board Consultant Andy Silva .....	SCAQMD Governing Board (Rutherford)
Wayne Nastri .....	SCAQMD Staff
Jill Whynot .....	SCAQMD Staff
Philip Fine.....	SCAQMD Staff
Matt Miyasato .....	SCAQMD Staff
Henry Hogo .....	SCAQMD Staff
Veera Tyagi .....	SCAQMD Staff
Laki Tisopulos .....	SCAQMD Staff
Leah Alfaro .....	SCAQMD Staff
Sam Atwood .....	SCAQMD Staff
Naveen Berry .....	SCAQMD Staff
Arlene Farol.....	SCAQMD Staff
Carol Gomez .....	SCAQMD Staff
Michael Krause.....	SCAQMD Staff
Dean Saito.....	SCAQMD Staff
Kim White .....	SCAQMD Staff
Jillian Wong.....	SCAQMD Staff
Vasken Yardemian .....	SCAQMD Staff
Curt Coleman.....	Southern CA AQ Alliance
William LaMarr .....	California Small Business Alliance
Rita Loof.....	RadTech
Daniel McGivney .....	SoCal Gas
Noel Muyco .....	SoCal Gas
David Park .....	ACTA Environmental
Bill Pearce.....	The Boeing Company
David Rothbart .....	L.A. Sanitation Districts
Susan Stark .....	Tesoro
Jim Stewart .....	Sierra Club
Yvonne Watson .....	Sierra Club

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 27

REPORT: Stationary Source Committee

SYNOPSIS: The Stationary Source Committee met Friday, November 18, 2016. Following is a summary of that meeting.

RECOMMENDED ACTION:  
Receive and file.

Ben Benoit, Chair  
Stationary Source Committee

LT:eb

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### **Attendance**

The meeting began at 10:50 a.m. In attendance at SCAQMD Headquarters were Committee Chair Ben Benoit and Committee Members Judith Mitchell, Dr. Joseph Lyou and Janice Rutherford. Absent were Committee Members Larry McCallon and Shawn Nelson.

### **ACTION ITEM**

#### **1. Amend BACT Guidelines and Approve Charter for BACT Scientific Review Committee**

Staff provided the Committee with a presentation on the proposed amendments to the BACT Guidelines and proposed Charter for the BACT Scientific Review Committee (SRC). The proposed amendments to the BACT Guidelines are to make them consistent with current requirements of SCAQMD rules and regulations as well as state and federal requirements, such as the addition of Parts E and F to address greenhouse gas BACT that is now covered under the federal Prevention of Significant Deterioration and Title V Permit Programs. To formalize the operation of the BACT SRC, staff is proposing the approval of a Charter which will detail the BACT SRC's goals and objectives, composition and selection of the BACT SRC membership and the operational guidelines, all consistent with the initial establishment of the BACT SRC.

David Rothbart representing Southern California Alliance of Publicly Owned Treatment Works (SCAP) stated that staff and SRC are in agreement that the BACT Guidelines still need significant revisions, and it is outdated and difficult to follow. Mr. Rothbart stated that the document is a tool for the permit streamlining effort and is important for both the public and staff. He also suggested that staff come back to the BACT SRC within a short-term period with any proposed revisions to the BACT Guidelines.

Rita Loof representing Radtech, Inc. opposed approving the guidelines. She indicated that her comments had not been addressed, and the items she provided, which are considered BACT in other air districts, have not been included. Staff replied that they were looking into her comments and working with Ms. Loof. Although UV/EB typically meet BACT requirements, staff is required to address the cost effectiveness of the technology for minor sources in compliance with State law requirements.

Councilmember Benoit asked staff how long it would take to return to the committee with the next Guidelines update. Staff committed to updating the Committee in six months and possibly adding the determinations at that time. Councilmember Mitchell inquired if the BACT Guidelines needed to be updated more frequently. Staff committed to returning in six months.

Karl Lany representing ES Engineering stated his concern that the BACT update is concurrent with CARB's efforts to update the Portable Engine ATCM, and the Guidelines do not address the possible nuances of the pending ATCM updates. Mr. Lany said that the BACT update process has exposed the need for Enforcement and Permitting policies that are beyond the scope of the BACT Guidelines. He also stated he had met with Compliance and Enforcement staff and acknowledged Engineering and Permitting staff's willingness to meet. He encouraged staff to keep the door open about these issues. Staff replied that the ATCM allows case-by-case analysis and the issue crosses the lines between compliance and permitting and staff is willing to work with stakeholders. Mr. Lany added that there is no reason to hold off on moving forward with the BACT Guidelines.

Harvey Eder of the Public Solar Power Coalition provided and discussed a news article to the Committee regarding the solar and wind industry. He stated that conversion to solar renewables is needed to meet future ozone ambient air standards.

Florence Carribean representing the Del Amo Action Committee asked if the SCAQMD could help with indoor air vapor intrusion from a nearby facility with high levels of perchloroethylene. She also identified Jones Chemical's operations of

receiving railroad car loads of chlorine and sulfur dioxide as a concern, as well as the Chemical Safety Board identifying the Exxon Mobil explosion as a “near miss” in regards to their hydrofluoric acid tanks. She supports BACT and considers it a step forward. She also encouraged the issuance of enforceable permits by the SCAQMD.

Jim Stewart of the Sierra Club stated that BACT should move ahead and he is in support of BACT. He distributed maps with MATES data and said that the data is the reason why BACT is needed. He asked Mr. Wayne Natri, Acting Executive Officer, what he planned to do about the West Long Beach Environmental Justice problem. Mr. Natri replied that the SCAQMD is working on measures in the AQMP to address this issue.

Dr. Lyou asked why fuel cells cannot be considered as BACT if they are already being used by companies for backup power. Staff stated that the Guidelines follow the Clean Fuels Policy, but cost effectiveness is an issue. Staff also clarified the BACT Guidelines are equipment-specific technologies as opposed to application requirements, which are beyond the scope of BACT. Dr. Lyou also added that he was concerned about so-called ‘perverse incentives’ (i.e. negative unintended consequences) that could potentially occur with BACT. He said as a piece of equipment nears the end of its service life, facilities may not be willing to replace it with new equipment since they will have to install new equipment that is cleaner, but might cost more. He asked if after a new BACT standard is set, the SCAQMD could incentivize earlier switchout of old equipment. Mr. Natri stated that those types of incentives are being proposed in the 2016 Air Quality Management Plan.

The item was approved by the Committee. Dr. Lyou stated he will have further comments at the Board meeting.

*Moved (Mitchell), seconded (Rutherford) and approved as recommended by the following vote:*

*Ayes: Benoit, Rutherford, Lyou, Mitchell*

*Noes:*

*Absent: McCallon, Nelson*

## **INFORMATIONAL ITEMS**

### **2. Assessment of tertiary-Butyl Acetate (tBAC)**

Dr. Philip Fine, Deputy Executive Officer/Planning, Rule Development and Area Sources, presented a summary of staff's assessment on tertiary-butyl acetate (tBAC) and stakeholder comments since the release of the Preliminary Draft tBAC Assessment White Paper. The following comments were made at the committee meeting.

Curt Coleman, Executive Director of the Southern California Air Quality Alliance and representing Lyondell (manufacturer of tBAC), commented that the agenda for the Scientific Review Panel (SRP) has been confirmed as of yesterday and is set for December 14, 2016. He supports staff's position to wait for the final SRP.

Raleigh Davis of the American Coatings Association commented that the tBAC paper only references a few assessments and should include all available information on tBAC. Ms. Davis stated that the SCAQMD should not include onsite worker analysis; it should be left to the Occupational Safety and Health Administration (OSHA). She asked why SCAQMD would defer to OEHHA for guidance, which is a state entity, but not to OSHA.

Chelsea Ritchie of the Roofing Coatings Association commented that the roofing industry is probably responsible for using the 2.8 percent of industrial maintenance coatings containing tBAC. She stated that reformulations would be costly and agrees with staff's recommendation not to change the exemption in Rule 1113. She also stated that SCAQMD should rely on OSHA for onsite risk. She requested that the paper list the assumptions used in the Rule 1168 onsite analysis.

Katy Wolf of the Institute of Research and Technical Assistance commented that the tBAC exemption should be removed from Rules 1113 and 1151. She said that staff may defer to OSHA, but SCAQMD should not make public policies that promote the use of a carcinogenic compound. Ms. Wolf stated that industrial maintenance coatings are not limited to industrial settings and can include anti-graffiti and floor coatings. She said staff was selective on scenarios chosen for the offsite analysis and did not choose to analyze floor coatings containing tBAC where there would be high risk. She said staff should not allow or promote any compounds with toxic or unknown toxic profiles.

Don Vulich of the Los Angeles Painting & Finishing Contractors Association commented that painters use personal protective equipment (PPE) and employers enforce the use of PPE. Mr. Vulich stated that the coatings are used by professionals who are conscientious of risks. He said employers are affected by any risk to workers and how it will affect their operations. He also added that it is the responsibility of employers to protect workers and it is OSHA's responsibility to regulate it. Dr. Lyou asked Mr. Vulich if he was supportive of onsite worker analysis. Mr. Vulich stated that he would be supportive because they would want to

know what the risks to workers are and whether the precautions they take now are sufficient.

Ida Lin of PPG Protective & Marine Coatings read a few sentences from a toxicology paper published in 2006, which concluded that tBAC has lower acute toxicity than previously suggested and neither tBAC or tertiary Butyl Alcohol (a metabolite of tBAC) are genotoxic or potential human carcinogens. She said that scientific results from both sides should be considered before making a determination.

After comments were received, Dr. Lyou commented that staff did not re-evaluate the potential risk to workers and staff did not do the analysis the Board directed them to complete. He said he spoke with Jack Broadbent of the Bay Area Air Quality Management District (BAAQMD) who said they assess the risk to workers. Dr. Fine responded that they likely do not analyze for onsite worker risks, only for offsite. Councilmember Mitchell commented that we should not evaluate on-site workers risk, but we may inspire CalOSHA to do it. She believes staff does not have the methodology or resources to do this analysis. Mr. Nastri suggested that staff reach out to CalOSHA to urge them to do the on-site exposure analysis. He said the SCAQMD does not have the authority and is not appropriately qualified to analyze on-site exposure and we should defer to the existing authority. He suggested coming back in 90 days to discuss staff's progress with CalOSHA. Supervisor Rutherford asked staff to clarify with BAAQMD about worker risk. She asked if staff would bring the status of conversations with CalOSHA back to Committee before going to the Board. Mr. Nastri responded affirmatively and stated that an update will be given to Committee before going to the Board.

### **3. Status Report on Rule 1147 Technology Assessment**

Due to time constraints, this item was moved to the next meeting.

### **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 January 20, 2017. The meeting was adjourned at 12:20 p.m.

### **Attachment**

Attendance Roster

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
STATIONARY SOURCE COMMITTEE**

**November 18, 2016**

**Attendance Roster (Voluntary)**

Councilmember Ben Benoit ..... SCAQMD Governing Board  
Councilmember Judith Mitchell ..... SCAQMD Governing Board  
Dr. Joseph Lyou ..... SCAQMD Governing Board  
Board Consultant David Czamanske..... SCAQMD Governing Board (Cacciotti)  
Board Consultant Debra Mendelsohn ..... SCAQMD Governing Board (Antonovich)  
Wayne Nastri ..... SCAQMD staff  
William Wong ..... SCAQMD staff  
Philip Fine..... SCAQMD staff  
Laki Tisopulos ..... SCAQMD staff  
Jill Whynot ..... SCAQMD staff  
Bayron Gilchrist ..... SCAQMD staff  
Matt Miyasato ..... SCAQMD staff  
Susan Nakamura ..... SCAQMD staff  
Amir Dejbakhsh..... SCAQMD staff  
Tracy Goss ..... SCAQMD Staff  
Bill LaMarr ..... California Small Business Alliance  
David Rothbart ..... L.A. County Sanitation Districts  
Noel Muyco ..... SoCalGas  
Daniel McGivney ..... SoCalGas  
Rita Loof..... RadTech  
Ida Lin..... PPG Industries  
Susan Stark ..... Tesoro  
Karl Lany ..... ES Engineering Services  
Bill Pearce..... The Boeing Company  
Jim Stewart ..... Sierra Club  
Katy Wolf ..... Institute for Research and Technical Assistance  
Raleigh Davis ..... American Coatings Association

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 28

REPORT: Technology Committee

SYNOPSIS: The Technology Committee met on November 18, 2016. Major topics included Technology Advancement items reflected in the regular Board Agenda for the December Board meeting. A summary of these topics with the Committee's comments is provided. The next Technology Committee meeting will be held on January 20, 2017.

RECOMMENDED ACTION:  
Receive and file.

Judith Mitchell  
Acting Technology Committee Chair

MMM:pmk

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**Attendance:** Due to the absence of Supervisor Benoit, Councilmember Judith Mitchell was asked to chair the meeting. Councilmember Judith Mitchell, Councilmember Dwight Robinson and Supervisor Janice Rutherford were in attendance at SCAQMD headquarters. Supervisor John Benoit, Councilmember Joe Buscaino and Mayor Larry McCallon were absent due to illness or a conflict with their schedule.

## DECEMBER BOARD AGENDA ITEMS

### 1. Amend Contract for Tier 4 Passenger Locomotives

Under the “Year 16” Carl Moyer Program Announcement released on March 7, 2014, the Southern California Regional Rail Authority (SCRRA) submitted a proposal requesting \$58.85 million to cofund the replacement of 17 and the purchase of 3 new Tier 4 locomotives. On September 4, 2015, the Board awarded \$22.85 million to SCRRA from the Carl Moyer Program AB 923 Fund (80), with a commitment to consider the remaining \$36 million over four phases. The SCAQMD’s cost-share of this \$129 million project is only for the replacement component of the project. This action is to amend SCRRA’s contract adding an additional \$9 million for a revised total of \$31.85 million from the Carl Moyer

Program AB 823 Fund (80). The remaining \$27 million requested by SCRRA will be considered over three phases in future Board requests.

*Moved by Rutherford; seconded by Robinson; unanimously approved.*

**2. Approve Trucks, Transport Refrigeration Units and Infrastructure Projects under Proposition 1B-Goods Movement Program **

On June 3, 2016, the Board approved the issuance of a Program Announcement to solicit eligible truck projects, transport refrigeration units (TRUs) and related infrastructure for the Proposition 1B-Goods Movement Program. The Program Announcement closed on August 4, 2016. Staff has completed the evaluation of the eligible projects, subject to the final rank order approval by CARB. This action is to execute contracts for eligible trucks, TRUs and infrastructure projects, subject to the final rank order approval by CARB, until all program funds designated for truck projects and TRUs are exhausted from the Proposition 1B-Goods Movement Program Fund (81). Projects not selected for funding will remain on the ranked lists in the event funds are reallocated from projects that fall through or funding from other project categories become available.

*Councilmember Judith Mitchell asked if this is the final year of Prop 1B-Goods Movement Program funding. Staff confirmed and explained that this is the final round of the Program. Fleets were allowed to apply for truck technologies, such as ultra-low NOx (0.02 g) and electric vehicles that are not yet commercially available. The Program will allow up to three years for these advanced technology truck projects to be deployed.*

*Acting Executive Officer Wayne Nastri asked if the unused funds in other air districts could be re-allocated to the South Coast since we are oversubscribed. Staff explained this would require approval by CARB but has precedence. Councilmember Mitchell requested that staff continue to monitor unspent funds from other districts.*

*Less than a quorum was present; the Committee Members concurred that this item be approved by the Board, with one abstention by Supervisor Rutherford.*

**3. Issue Program Announcement for Purchase of Electric School Buses **

Since 2001, the SCAQMD has replaced approximately 1,600 pre-1994 school buses with alternative fuel buses and retrofitted nearly 3,400 more diesel school buses with particulate traps. Traditionally, the SCAQMD has funded the replacement of older diesel school buses only with the lowest certified commercially available alternative fuel school buses. According to CARB's latest revisions of the Lower-Emission School Bus Program Guidelines, the Carl Moyer Program AB 923 funds can be utilized to purchase electric school buses. This action is to issue a Program

Announcement to solicit proposals from public school districts and joint power authorities to purchase electric school buses approved by CARB.

*Councilmember Mitchell inquired about which electric school bus was approved by CARB. Staff explained that at this time only one bus, the E-lion Type C electric school bus made in Canada, has been approved by CARB. Councilmember Mitchell also asked whether BYD was participating in the program. Staff explained that BYD did not participate, but there is a possibility that others may participate and have their buses approved. In that case they will also be eligible under this program. Staff committed to encourage other manufacturers to become CARB-certified.*

*Moved by Robinson; seconded by Rutherford; unanimously approved.*

**4. Other Business**

*There was no other business.*

**5. Public Comments**

*There were no public comments.*

**Next Meeting: January 20, 2017**

**Attachment**

Attendance Roster

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
TECHNOLOGY COMMITTEE  
Attendance Roster – November 18, 2016**

Councilmember Judith Mitchell.....	SCAQMD Governing Board
Councilmember Dwight Robinson.....	SCAQMD Governing Board
Supervisor Janice Rutherford .....	SCAQMD Governing Board
Mark Abramowitz .....	Board Consultant (Lyou)
Ron Ketcham.....	Board Consultant (McCallon)
David Czamanske.....	Board Consultant (Cacciotti)
Wayne Nastri.....	SCAQMD Staff
Sheri Hanizavareh.....	SCAQMD Staff
Matt Miyasato.....	SCAQMD Staff
Henry Hogo .....	SCAQMD Staff
Fred Minassian .....	SCAQMD Staff
Naveen Berry.....	SCAQMD Staff
Dean Saito .....	SCAQMD Staff
Ranji George.....	SCAQMD Staff
Drue Hargis .....	SCAQMD Staff
Joseph Lopat.....	SCAQMD Staff
Mei Wang .....	SCAQMD Staff
Vicki White .....	SCAQMD Staff
Dominic Tung.....	SCAQMD Staff
Penny Shaw Cedillo .....	SCAQMD Staff
Pat Krayser .....	SCAQMD Staff
David Park.....	Alta Environmental
Anne L. Rice.....	Southern California Regional Rail Authority

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 29

REPORT: Mobile Source Air Pollution Reduction Review Committee

SYNOPSIS: Below is a summary of key issues addressed at the MSRC's meeting on November 17, 2016. The next meeting is scheduled for Thursday, December 15, 2016, at 2:00 p.m., in Conference Room CC8.

RECOMMENDED ACTION:  
Receive and file.

Michael D. Antonovich  
SCAQMD Representative on MSRC

MMM:HH:AP

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### **Meeting Minutes Approved**

The MSRC unanimously approved the minutes of the October 20, 2016 meeting. Those approved minutes are attached for your information (*Attachment 1*).

### **FYs 14-16 Alternative Fuel Infrastructure Program**

As part of the FYs 2014-16 Work Program, the MSRC allocated \$5,000,000 for the implementation of new and expanded CNG and LNG refueling stations and modification of maintenance facilities to accommodate gaseous-fueled vehicles. A Program Announcement, #PA2015-12, was developed and released on May 1, 2015, with an open application period commencing that day and closing July 29, 2016. To date, the MSRC has awarded a total of \$2,542,000. Consideration of Omnitrans' application was delayed while clarification was sought, and \$500,000 was reserved pending final action on that application; the remaining \$1,958,000 was reverted to the AB 2766 Discretionary Fund. Based upon additional clarification provided by Omnitrans, the MSRC-TAC recommended and the MSRC approved a contract award to Omnitrans in an amount not to exceed \$500,000 for the expansion of their existing limited access CNG station on Arrow Highway in Montclair, expansion of their existing limited access CNG station on West 5th Street in San Bernardino, and installation of a

new public access CNG station on I Street in San Bernardino, as part of the MSRC's FYs 2014-16 Work Program. This contract award will be considered by the SCAQMD Board at its December 2, 2016 meeting.

**FYs 14-16 Near-Zero Natural Gas Engine Incentives Program**

As part of the FYs 2014-16 Work Program, the MSRC allocated \$10,000,000 to provide funds towards the purchase cost of the Cummins Westport ISL G Near Zero natural gas engine. This engine is certified to the CARB Optional NO<sub>x</sub> standard of 0.02 g/bhp-hr. A Program Announcement, #PA2016-11, was developed and released on June 3, 2016. Eligible vehicle types include urban transit buses and refuse collection trucks. For qualifying transit buses, the MSRC allocated \$7.5 million, with a maximum per-entity award amount of \$1.875 million, and will award \$15,000 per vehicle for either new bus purchases or the re-power (engine replacement) of existing buses. For qualifying refuse trucks, the MSRC allocated \$2.5 million, with a maximum per-entity award amount of \$625,000, and will award \$25,000 per vehicle, for re-powers only. The Program Announcement includes an open application period commencing July 5, 2016 and closing January 6, 2017. To date, the MSRC has awarded a total of \$4,270,000. An additional application has been received. The MSRC-TAC recommended, and the MSRC approved, a contract award to Omnitrans in an amount not to exceed \$945,000 for the purchase of 39 new transit buses and the re-power of 24 existing buses, as part of approval of the MSRC's FYs 2014-16 Work Program. This contract award will be considered by the SCAQMD Board at its December 2, 2016 meeting.

**FYs 12-14 Local Government Match Program**

As part of the FYs 2012-14 Work Program, the City of Yucaipa was awarded an \$84,795 contract to install bicycle lanes on portions of five roadways. While attempting to resolve issues with the contractor performing the work, the City did not request a contract term extension from the MSRC prior to the contract's July 1, 2016 expiration date. The City subsequently requested, and the MSRC approved, a new/replacement nine-month contract with the City in the amount of \$84,795. This replacement contract will be considered by the SCAQMD Board at its December 2, 2016 meeting.

**Contract Modification Request**

The MSRC considered a contract modification request for the City of Anaheim, Contract #ML12041, which provides \$68,977 to install electric vehicle charging infrastructure, and approved a one-year term extension.

**Received and Approved Final Reports**

The MSRC received and unanimously approved one final report summary for Southern California Regional Rail Authority, Contract #MS16085, which provided \$78,033 to implement Special Metrolink Service to Auto Club Speedway.

**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 November, 2016 is attached for your information (*Attachment 2*).

**Attachments**

Attachment 1 – Approved October 20, 2016 Meeting Minutes

Attachment 2 – November 2016 Contracts Administrator's Report



**MOBILE SOURCE AIR POLLUTION REDUCTION REVIEW COMMITTEE**  
**THURSDAY, October 20, 2016 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  
Rex Richardson (Alt.), representing SCAG  
Dolores Roybal Saltarelli, representing Regional Rideshare Agency (via v/c)  
Steve Veres, representing LA County MTA (via v/c)  
Greg Winterbottom, representing OCTA

**MEMBERS ABSENT:**

(Chair) Greg Pettis, representing RCTC  
Jack Kitowski, representing California Air Resources Board

**OTHERS PRESENT:**

David Czamanske, SCAQMD Board Assistant (Cacciotti)  
Lauren Dunlap, SoCalGas  
Debra Mendelsohn, SCAQMD Board Assistant (Antonovich)  
Ric Teano, OCTA  
Laura Zaremba-Schmidt, ARB  
Rongsheng Luo, SCAG  
Gretchen Hardison, City of Los Angeles  
Kelly Lynn, SANBAG  
Matt Essex, A-Z Bus Sales

**SCAQMD STAFF & CONTRACTORS**

Angelica Enriquez, SCAQMD Staff  
Ray Gorski, MSRC Technical Advisor-Contractor  
John Kampa, Financial Analyst  
Quintus Lee, Assistant Telecommunications Technician  
Matt MacKenzie, MSRC Contracts Assistant  
Gabriela Navar, MSRC Contracts Assistant  
Ana Ponce, MSRC Administrative Liaison  
Cynthia Ravenstein, MSRC Contracts Administrator  
Veera Tyagi, Senior Deputy District Counsel  
Paul Wright, Audio Visual Specialist

**CALL TO ORDER**

- Call to Order

MSRC (Vice Chair) Larry McCallon called the meeting to order at 2:03 p.m. Roll call was taken at the start of the meeting. The following members and alternates were present: BENOIT, MCCALLON, MARTINEZ, ROYBAL-SALTARELLI, WINTERBOTTOM.

- Opening Comments

There were no opening comments.

**STATUS REPORT**

- Clean Transportation Policy Update
- Cynthia Ravenstein, MSRC Contracts Administrator, reported on the Clean Transportation Policy Update on behalf of MSRC-TAC Chair Gretchen Hardison. Ms. Ravenstein referred to the handout that was distributed at the meeting. An email link will be sent to the Members so that they can access the links in the document. It contains a lot of updates on various state activities with regard to proposed modifications to rules, the Moyer Program, and proposed legislation

**CONSENT CALENDAR (Items 1 through 6)****Receive and Approve Items****Agenda Item #1 – Minutes of the June 16 and August 18, MSRC Meetings**

MSRC Member Michelle Martinez recused herself from Agenda Item #5, thus a quorum was lost for that item.

Veera Tyagi, Senior Deputy District Counsel advised that the item should be pulled from the consent calendar and brought back later in the agenda because a quorum could not be met at this time.

Vice Chair Larry McCallon stated that he does not have a financial interest, but is required to identify for the record that he is an Alternate for OmniTrans, which is involved in Agenda Item #8.

[MSRC Member Steve Veres arrived during the vote for these items, at 2:05 p.m., thus restoring a quorum for Agenda Item #5.]

The minutes of the June 16 and the August 18, 2016 MSRC meetings were distributed at the meeting.

ON MOTION BY MSRC ALTERNATE BEN BENOIT, AND SECONDED BY MSRC MEMBER MICHELE MARTINEZ, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #4 AND ITEM #6, THE MSRC UNANIMOUSLY VOTED TO APPROVE THE JUNE 16 AND THE AUGUST 18, 2016 MSRC MEETING MINUTES.  
AYES: BENOIT, MCCALLON, MARTINEZ, ROYBAL-SALTARELLI, VERES, WINTERBOTTOM.  
NOES: NONE.

**ACTION:** Staff will include the minutes in the MSRC Committee Report for the November 4, 2016 SCAQMD Board meeting, and place a copy on the MSRC's website.

**Agenda Item #2 – Summary of Final Reports by MSRC Contractors**

The MSRC received and unanimously approved three final report summaries this month for: 1) SuperShuttle International, Inc., Contract #MS12086, which provided \$225,000 to purchase 23 Medium Heavy-Duty Vehicles, 2) City of Monterey Park, Contract #MS14090, which provided \$225,000 to expand existing CNG infrastructure, and 3) Southern California Gas Company, Contract #MS12024, which provided \$150,000 for the construction of new public-access CNG station in Murrieta.

ON MOTION BY MSRC ALTERNATE BEN BENOIT, AND SECONDED BY MSRC MEMBER MICHELE MARTINEZ, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #4 AND ITEM #6, THE MSRC UNANIMOUSLY VOTED TO APPROVE THE FINAL REPORTS ABOVE.

AYES: BENOIT, MCCALLON, MARTINEZ, ROYBAL-SALTARELLI, VERES, WINTERBOTTOM.

NOES: NONE.

**ACTION:** MSRC staff will file the final reports and release any retentions on the contracts.

**Receive and File Items**

**Agenda Item #3 – MSRC Contracts Administrator's Report**

The MSRC AB 2766 Contracts Administrator's Report for August 25, 2016 through September 28, 2016 was included in the agenda package.

ON MOTION BY MSRC ALTERNATE BEN BENOIT, AND SECONDED BY MSRC MEMBER MICHELE MARTINEZ, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #4 AND ITEM #6, THE MSRC UNANIMOUSLY VOTED TO RECEIVE AND FILE THE CONTRACTS ADMINISTRATOR'S REPORT FOR AUGUST 25, 2016 THROUGH SEPTEMBER 28, 2016.

AYES: BENOIT, MCCALLON, MARTINEZ, ROYBAL-SALTARELLI, VERES, WINTERBOTTOM.

NOES: NONE.

**ACTION:** Staff will include the MSRC Contracts Administrator's Report in the MSRC Committee Report for the November 4, 2016, SCAQMD Board meeting.

**Agenda Item #4 – Financial Report on AB 2766 Discretionary Fund**

A financial report on the AB 2766 Discretionary Fund for the period ending September 30, 2016 was included in the agenda package.

ON MOTION BY MSRC ALTERNATE BEN BENOIT, AND SECONDED BY MSRC MEMBER MICHELE MARTINEZ, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #4 AND ITEM #6, THE

MSRC UNANIMOUSLY VOTED TO RECEIVE AND FILE THE FINANCIAL REPORT FOR THE PERIOD ENDING SEPTEMBER 30, 2016.  
AYES: BENOIT, MCCALLON, MARTINEZ, ROYBAL-SALTARELLI, VERES, WINTERBOTTOM.  
NOES: NONE.

**ACTION:** No further action is required.

**Agenda Item #5 – Consider 18-Month Term Extension by Ware Disposal, Contract #MS12034 (\$133,070 – Purchase Eight Medium-Heavy-Duty On-Road Vehicles)**

Ware Disposal requests an 18-month term extension due to vendor ownership changes and changes in operational priorities.

ON MOTION BY MSRC MEMBER GREG WINTERBOTTOM, AND SECONDED BY MSRC ALTERNATE BEN BENOIT, UNDER APPROVAL OF CONSENT CALENDAR ITEM #5, THE MSRC VOTED TO APPROVE THE 18-MONTH TERM EXTENSION BY WARE DISPOSAL, CONTRACT #MS12034.

AYES: BENOIT, MCCALLON, ROYBAL-SALTARELLI, VERES, WINTERBOTTOM.

ABSTAINED: MARTINEZ

NOES: NONE.

**ACTION:** MSRC staff will amend the above contract accordingly.

**Agenda Item #6– Consider Modified Trail Alignment and 21-Month Term Extension by Riverside County Regional Park & Open-Space District, Contract #ML14021 (\$250,000 – Install Class I Bikeway)**

The Park and Open-Space District requests to modify the bicycle trail alignment in order to avoid crossing two arroyos and thus stay within the original budget. Additionally, they request a 21-month term extension due to delays associated with the alignment change and staff turnover.

ON MOTION BY MSRC ALTERNATE BEN BENOIT, AND SECONDED BY MSRC MEMBER MICHELE MARTINEZ, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #4 AND ITEM #6, THE MSRC UNANIMOUSLY VOTED TO MODIFY THE BICYCLE TRAIL ALIGNMENT AND GRANT A 21-MONTH TERM EXTENSION TO RIVERSIDE COUNTY REGIONAL PARK AND OPEN-SPACE DISTRICT, CONTRACT #ML14021.

AYES: BENOIT, MCCALLON, MARTINEZ, ROYBAL-SALTARELLI, VERES, WINTERBOTTOM.

NOES: NONE.

**ACTION:** MSRC staff will amend the above contract accordingly.

**ACTION CALENDAR (Items 7 through 9)**

**Agenda Item #7 – Consider Appointment of John Kato as Primary, and Andre Freeman as Alternate, to the MSRC-TAC in the Position of “Air Pollution Control Expert”**

Ray Gorski, MSRC Technical Advisor, reported on this item.

The MSRC-TAC currently has a vacancy in the position of Air Pollution Control Expert. This position is mandated under the California Health & Safety Code Section 44244(c). Mr. John Kato has volunteered to fill this vacancy on the MSRC-TAC. Mr. Kato currently serves as Deputy Director of the Fuels and Transportation Division of the California Energy Commission (CEC). Mr. Andre Freeman has volunteered to serve as alternate for this position. Mr. Freeman currently serves as a Supervisor in the Fuels and Transportation Division of the CEC.

MSRC Vice Chair Larry McCallon asked if others had alternates.

Ray Gorski, MSRC Technical Advisor, responded with yes. This type of appointment does not have an automatic alternate so the MSRC would be viewing both individuals individually on their credentials.

MSRC Member Greg Winterbottom added that he supported this individual wholeheartedly; after hearing him speak at the Retreat he was overwhelmed by the wealth of knowledge. With his consistent belief that people should be at meetings, he hoped that the MSRC will fund flying Mr. Kato down to the meetings. He knows that Mr. Kato's agency will probably not fund the cost, but that it is much better to have the interaction of the group.

Ray Gorski, MSRC Technical Advisor, concurred. We will endeavor to assist Mr. Kato, to the extent that is allowed, to have him or his alternate present at the MSRC-TAC meetings.

ON MOTION BY MSRC MEMBER GREG WINTERBOTTOM, AND  
SECONDED BY MSRC ALTERNATE BEN BENOIT, THE MSRC  
UNANIMOUSLY VOTED TO APPROVE APPOINTMENT OF JOHN KATO  
AS PRIMARY, AND ANDRE FREEMAN AS ALTERNATE, TO THE MSRC-  
TAC POSITION OF "AIR POLLUTION CONTROL EXPERT."  
AYES: BENOIT, MCCALLON, MARTINEZ, ROYBAL-SALTARELLI,  
VERES, WINTERBOTTOM.  
NOES: NONE.

**ACTION:** No further action is required.

### **FYs 2014-16 WORK PROGRAM**

#### **Agenda Item #8 – Consider Application Received under the Alternative Fuel Infrastructure Program**

Cynthia Ravenstein, MSRC Contracts Administrator, reported on this item.

As an element of their FYs 2014-16 Work Program, the MSRC allocated \$5 million to fund new and expanded CNG and LNG refueling stations, as well as modifications to vehicle maintenance facilities. A Program Announcement was released on May 1, 2015 and closed on July 29, 2016. The MSRC has previously awarded a total of \$2,542,000. Consideration of one application for three locations, from Omnitrans, was delayed while clarification was sought. The amount of \$500,000, requested by Omnitrans, was reserved pending final action on this application. Omnitrans has now clarified the project parameters at the three locations. One of the locations, on "I" street in San Bernardino, would install an entirely new public access CNG fueling station. The location on Arrow Highway in Montclair would replace an existing limited access LNG station with a CNG station that uses pipeline gas. It would also involve having another 41 buses use the station that haven't been using it previously, which entails substantial increase in the throughput. The Subcommittee felt that this could be considered an expansion of the existing station. The location on 5th Street in San Bernardino would also replace the existing

limited access LNG station with a pipeline CNG station, but there would not be any projected increase in the throughput. So the Subcommittee felt, and the TAC concurred, that this project would really not fall in the scope of the MSRC's program. MSRC was funding new stations or expanded stations, but there already been a station here, and they are just changing where they are getting their source of fuel, not increasing the throughput or the capacity.

MSRC Vice Chair Larry McCallon asked if there were talks with Omnitrans in regards to ideas of increasing the throughput or if they are not going to do that.

Cynthia Ravenstein, MSRC Contracts Administrator, replied that they were asked if there was any intention of increasing the throughput and they replied no, that this is just to serve the same buses that they were already serving with the existing LNG station. But they felt that it would be more efficient for them to use the pipeline gas and that they were going to save money that way.

MSRC Member Greg Winterbottom asked if they are increasing any of the technology or are they getting anything better than what they had in the past and if there is a way we can help them.

Ray Gorski, MSRC Technical Advisor, replied that as far as technology is concerned what they could do is ensure that they are a closed loop system. Methane leakage is one of the concerns for natural gas dispensing. That said, he is not aware that there is any closed loop system being proposed for this station, but it can be checked if the MSRC would like us to go back and investigate.

MSRC Vice Chair Larry McCallon commented that he thought it would be good.

Ray Gorski, MSRC Technical Advisor, also commented that it is not on the agenda today but that a significant application was received from Omnitrans to purchase near-zero engines.

ON MOTION BY MSRC MEMBER GREG WINTERBOTTOM, AND  
SECONDED BY MSRC ALTERNATE BEN BENOIT, THE MSRC  
UNANIMOUSLY VOTED TO DEFFER ITEM #8 FOR ONE MONTH.  
AYES: BENOIT, MCCALLON, MARTINEZ, ROYBAL SALTARELLI,  
VERES, WINTERBOTTOM.  
NOES: NONE.

**ACTION:** This item is deferred to the November 17, 2016 MSRC meeting.

### **FYs 2016-18 WORK PROGRAM**

#### **Agenda Item #9 Joint Retreat Review and Update on the FY 2016-'18 Work Program Development Process**

[MSRC Member Michael Antonovich arrived during the presentation of this item at 2:41 p.m.]

[MSRC Member Rex Richardson arrived during the presentation of this item at 2:44 p.m.]

Ray Gorski, MSRC Technical Advisor presented on this item.

The MSRC and MSRC-TAC held their joint Retreat on September 15, 2016. The MSRC will review outcomes of the Retreat and receive an update on current MSRC-TAC activities in the 2016-'18 Work Program Development Process.

The SCAQMD is in a position where their priorities have to be reduction of ozone precursors and particulate matter emissions.

MSRC Vice Chair Larry McCallon asked how do we clarify the air quality benefits with this program. Someone presents a proposal how do we know how much NO<sub>x</sub> or PM 2.5 is being mitigated.

Ray Gorski, MSRC Technical Advisor, answered it is really a function of categories. For example, local match historically has focused on vehicles and infrastructure. Infrastructure is the enabling part of the overall all fuel structure. You quantify the vehicles. They have a CARB-certified emissions level which is specific to the engine they are using. We have that information. We can look at what they buy in lieu of that vehicle and do a direct comparison and quantify the air quality benefits. The ones that become a little more difficult are those that require behavior change because you have to attempt to anticipate what an individual's response is going to be to that program that is made available to them. What we continue to do for example, for active transportation, last year we had active transportation as an element of the Work Program, but we required the contractors to do before and after traffic or pedestrian counts just to demonstrate what is the actual improvement in bicycling and pedestrian access associated with the MSRC investment being made. So all strategies can be quantified, some of them with a much higher degree of precision. Those which are related to vehicles which are certified or near zero engines technologies are absolutely available. Not only are they the easiest to do, but they give you the most assurance that you are getting the air quality benefit.

MSRC Vice Chair Larry McCallon asked if we put that information on the application so that it is quantified and then archived.

Ray Gorski, MSRC Technical Advisor, responded that we do have an archive. As far as using as evaluation criteria, there are two strategies which can be done. The first is to have complete evaluation criteria, meaning that everyone presents theirs and you look at them all and you rank them and you fund them in rank order. The second way to do it, which for example the MSRC has done with Local Match, is that you simply set a high bar to begin with, meaning this is the minimum technology, the minimum emission reduction that we'll allow. But if you hit this bar then you'll have the probability to receive some funding. That has worked out a little better for cities and counties for example. One thing that we should be discussing is should that bar should be raised? Because it all comes down to, are you getting the return on the investment you are making? I can assure you, you are not getting the return you were getting 25 years ago. There is room for discussion to see if we can do better.

MSRC Member Michele Martinez asked on the matching funds for cities and counties, what is the thing that they have applied for most.

Ray Gorski, MSRC Technical Advisor, answered vehicles and infrastructure.

MSRC Member Michele Martinez asked if a breakdown of the percentage can be provided.

Ray Gorski, MSRC Technical Advisor, replied absolutely. He also added that cities and counties are still subject to SCAQMD fleet rules, which requires them to purchase alt fuel when they make a purchase of a medium or heavy duty vehicles.

MSRC Member Greg Winterbottom asked what about repowers.

Ray Gorski, MSRC Technical Advisor, replied repowers too. But that they don't do a lot of repowers. Bottom-line is these vehicles carry a cost premium. The MSRC funding, matched with their subvention funding, or other funding if it is allowed, allows them to offset that incremental cost of the vehicle. So it allows them to purchase the vehicles which fulfill their obligations under

the South Coast District fleet rules. That is why for the last 17 years this program has been so popular. Fleet rules were adopted beginning in 1999 through 2000. I can assure you those rules would not have been adopted had the MSRC not been there to help mitigate some of that additional cost. Those were ongoing discussions between the district and the MSRC. The partnership has been great for the last quarter century. The thought is now we simply have to take a step back and take a look and make sure all parties are still getting the benefits that are associated with the investments that are being made.

The first thing that we are asking your permission to do is form three subcommittees to look at your core programs, come back to you with recommendations as to how they can potentially be improved, modified and deleted, which I do not think is probable but it is all up to you, to make sure that they are all brought up current to at least get you what your investment warrants.

MSRC Member Greg Winterbottom asked if the subcommittees will be made up of board members or are they going to be TAC.

Ray Gorski, MSRC Technical Advisor, answered that right now the next step is based on your approval today. Assuming that you approve us to get started, what we will do is send out an invitation to form three subcommittees. If MSRC members would like to participate in those subcommittees, you are absolutely welcome to.

MSRC Member Greg Winterbottom commented that the cities have a pretty big stake in all this. It would be pretty interesting to get members from cities and counties to give their input.

MSRC Member Michele Martinez asked when you talk about leveraging funds beyond the cities and counties, besides them on these matching funds are there any other funds that they are leveraging. Is there is a list of that and can it be provided, just so that we can understand how everything is being actually funded.

Ray Gorski, MSRC Technical Advisor, replied absolutely. We ask that cities report their co-funding. In all honesty you are going to see that a lot of it is general fund. It will be Subvention funds, general fund and MSRC.

MSRC Member Michele Martinez asked if that will be part, since it is infrastructure, of the CIP.

Ray Gorski, MSRC Technical Advisor, replies that it actually in part will be Capital Improvement Program.

MSRC Member Michele Martinez commented that she just asked that question because of her equity perspective.

MSRC Vice Chair Larry McCallon asked if there is a consensus that the TAC should move ahead with those subcommittees.

MSRC Member Greg Winterbottom commented that some cities' members from the board should at least be involved.

Ray Gorski, MSRC Technical Advisor, commented just trying to do the math realistically, if the core programs are funded you are still going to have on the order of 15 to 20 million dollars available to you. So the question then is what else. So the discussions are going to include identification of potential new Work Program ideas. At the Retreat we talked about trends that are very innovative such as the innovation category that could have something similar to like the "X

Prize” - a very out there idea, but cool, and the question is what is going to get people interested, what is going to motivate them in order to advance our cause. So that is one that really caught my attention. Again will continue to engage regulatory agencies; it’s a very complex funding environment right now. This is why I want to make sure that we are identifying holes in their funding programs and seeing new opportunities. It was discussed at the TAC leadership meeting that there might be a desire to reserve a portion of the MSRC’s money, to allow you to have that quick response flexibility that most other agencies do not have the ability to do. The TAC has a lot of ideas but they are seeking the input of the MSRC.

MSRC Member Michele Martinez asked if it is possible to get a listing of what the TAC said. That it will be helpful to be in sync.

Ray Gorski, MSRC Technical Advisor, replied sure. The discussion with the TAC was pretty lively. There were a lot of good thoughts.

MSRC Vice Chair Larry McCallon asked if there was any input from the MSRC members.

Ray Gorski, MSRC Technical Advisor, added that something will be put together to show where the money really comes from.

MSRC Member Dolores Roybal Saltarelli commented that considering that it was her first Retreat, it was very informative. She appreciated hearing all the presentations and it really helped in terms of thinking where we want to go because Ray gave that very insightful chronology of where we started. The challenge is large and focusing on doing something more is the step in the right direction.

MSRC Vice Chair Larry McCallon acknowledged the arrival of MSRC Member Michael Antonovich and MSRC’s newest member Rex Richardson.

MSRC Member Rex Richardson commented that he was invited by SCAG President Michelle Martinez and that he was unable to make it to the Retreat but that he certainly wanted to be present today. He also wanted to thank the MSRC for the “Go Human” funding for Long Beach. He received feedback that this event was the most well attended “Go Human:” event that they ever had. So the money was certainly put to good use.

MSRC Member Michele Martinez commented that at the Retreat it was discussed about innovation and technology. Moving forward, how do we continue to get the word out about the MSRC continuing to use technology to make that happen? It is going to be imperative as we move forward and continue to partner with others and continue to keep that on the radar.

Ray Gorski, MSRC Technical Advisor, added that just to make everyone aware, the bidder’s conference for the new website would be on October 27<sup>th</sup>. Next year we will have a new website, we are prolific on Facebook and Twitter. But again we recognize that outreach is an important element more so than ever in the MSRC’s history.

## **OTHER BUSINESS**

### **Agenda Item #10 – Other Business**

MSRC Member Greg Winterbottom shared an image which showed one bus with the amount of NOx and particulates in 1980, and 240 buses for today, which is what we get now for the same amount of NOx and particulates.

**ADJOURNMENT**

THERE BEING NO FURTHER BUSINESS, THE MSRC MEETING  
ADJOURNED AT 2:50 P.M.

**NEXT MEETING**

Thursday, November 17, 2016, at 2 p.m., at South Coast Air Quality  
Management District, 21865 Copley Drive, Conference Room CC8, Diamond  
Bar, CA 91765.

[Prepared by Gabriela Navar]



MSRC Agenda Item No. 3

**DATE:** November 17, 2016

**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 September 29 to October 26, 2016.

**RECOMMENDATION:** Receive and file report

**WORK PROGRAM IMPACT:** None

**Contract Execution Status**

**2016-18 Work Program**

On July 8, 2016, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is under development.

**2014-16 Work Program**

On December 5, 2014, the SCAQMD Governing Board approved an award under the AB118 Enhanced Fleet Maintenance Program. This contract is executed.

On June 5, 2015, the SCAQMD Governing Board approved two awards under the Event Center Transportation Program and one award to provide low-emission transportation services to the Special Olympics World Games. These contracts are executed.

On September 4, 2015, the SCAQMD Governing Board approved 25 awards under the Local Government Match Program and one award under the Transportation Control Measure Partnership Program. These contracts are undergoing internal review, with the prospective contractor for signature, or executed.

On October 2, 2015, the SCAQMD Governing Board approved 11 awards under the Local Government Match Program and one award under the Alternative Fuel Infrastructure Program. These contracts are with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On November 6, 2015, the SCAQMD Governing Board approved 37 awards under the Local Government Match Program. These contracts are under development, with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On December 4, 2015, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program, one award under the Alternative Fuel Infrastructure Program, and one award under the Transportation Control Measure Partnership Program. These contracts are under development or executed.

On January 8, 2016, the SCAQMD Governing Board approved two awards under the Major Event Center Transportation Program, one award under the Local Government Match Program, and one award under the Transportation Control Measure Partnership Program. These contracts are executed.

On March 4, 2016, the SCAQMD Governing Board approved two awards under the Alternative Fuel Infrastructure Program. These contracts are with the prospective contractor for signature or executed.

On April 1, 2016, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program and five awards under the Transportation Control Measure Partnership Program. These contracts are with the prospective contractor for signature, with the SCAQMD Chair for signature, or executed.

On May 6, 2016, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program and one award under the Transportation Control Measure Partnership Program. These contracts are with the prospective contractor for signature or executed.

On June 3, 2016, the SCAQMD Governing Board approved one award under the Alternative Fuel Infrastructure Program. This contract is executed.

On October 7, 2016, the SCAQMD Governing Board approved three awards under the Major Event Center Transportation Program, ten awards under the Alternative Fuel Infrastructure Program, five awards under the Near-Zero Natural Gas Engine Incentives Program and one award for a Regional Active Transportation 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, with the SCAQMD Board Chair 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 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 with the prospective contractor for signature, undergoing requested revisions, or executed.

On February 6, 2015, the SCAQMD Governing Board approved 3 awards under the Alternative Fuel Infrastructure Program. These contracts are executed.

#### **Work Program Status**

Contract Status Reports for work program years with open (including "Open/Complete") and/or pending contracts are attached. 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***

No contracts from this work program year are open; and 2 are in "Open/Complete" status.

***FY 2005-06 Work Program Invoices Paid***

No invoices were paid during this period.

***FY 2006-07 Work Program Contracts***

No contracts from this work program year are open; and 4 are in "Open/Complete" status.

***FY 2006-07 Invoices Paid***

No invoices were paid during this period.

***FY 2007-08 Work Program Contracts***

5 contracts from this work program year are open; and 10 are in "Open/Complete" status.

***FY 2007-08 Invoices Paid***

No invoices were paid during this period.

***FY 2008-09 Work Program Contracts***

2 contracts from this work program year are open; and 11 are in "Open/Complete" status.

***FY 2008-09 Invoices Paid***

No invoices were paid during this period.

***FY 2010-11 Work Program Contracts***

15 contracts from this work program year are open; and 32 are in "Open/Complete" status.

***FY 2010-11 Invoices Paid***

One invoice in the amount of \$8,000.00 was paid during this period.

***FY 2011-12 Work Program Contracts***

28 contracts from this work program year are open, and 24 are in "Open/Complete" status.

***FY 2011-12 Invoices Paid***

One invoice in the amount of \$10,375.80 was paid during this period.

***FYs 2012-14 Work Program Contracts***

54 contracts from this work program year are open, and 10 are in "Open/Complete" status.

***FYs 2012-14 Invoices Paid***

2 invoices totaling \$301,250.00 were paid during this period.

***FYs 2014-16 Work Program Contracts***

66 contracts from this work program year are open, and two are in “Open/Complete” status.

***FYs 2014-16 Invoices Paid***

3 invoices totaling \$65,485.44 were paid during this period.

***Administrative Scope Changes***

One administrative scope change was initiated during the period of September 29 to October 26, 2016:

- City of Anaheim, Contract #ML12041, Install EV Charging Stations – 3-month no-cost term extension

***Attachments***

- FY 2004-05 through FYs 2014-16 (except FY 2009-10) Contract Status Reports



## AB2766 Discretionary Fund Program Invoices

September 29, 2016 to October 26, 2016

Contract Admin.	MSRC Chair	MSRC Liaison	Finance	Contract #	Contractor	Invoice #	Amount
<i>2010-2011 Work Program</i>							
10/5/2016	10/21/2016	10/25/2016	10/25/2016	MS11086	DCL America Inc.	00079203-Fii	\$8,000.00
<b>Total: \$8,000.00</b>							
<i>2011-2012 Work Program</i>							
10/25/2016				ML12057	City of Coachella	MD10/13/20	\$10,375.80
<b>Total: \$10,375.80</b>							
<i>2012-2014 Work Program</i>							
10/20/2016	10/21/2016	10/25/2016	10/25/2016	MS14046	Ontario CNG Station Inc.	1	\$135,000.00
10/20/2016	10/21/2016	10/25/2016	10/25/2016	MS14053	Upland Unified School District	001	\$166,250.00
<b>Total: \$301,250.00</b>							
<i>2014-2016 Work Program</i>							
10/21/2016	10/21/2016	10/25/2016	10/25/2016	MS16004	Mineral LLC	101650	\$300.00
10/20/2016	10/21/2016	10/25/2016	10/25/2016	MS16085	Southern California Regional Rail Authority (Metr	002916-Fina	\$64,285.44
10/5/2016	10/21/2016	10/25/2016	10/25/2016	MS16004	Mineral LLC	1, 101593, 1	\$900.00
<b>Total: \$65,485.44</b>							

**Total This Period: \$385,111.24**

## FYs 2004-05 Through 2014-16 AB2766 Contract Status Report

11/9/2016

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
<b>FY 2004-2005 Contracts</b>									
<b>Open Contracts</b>									
ML05014	Los Angeles County Department of P	5/21/2007	11/20/2008	3/20/2018	\$204,221.00	\$0.00	Traffic Signal Synchronization	\$204,221.00	No
<b>Total: 1</b>									
<b>Declined/Cancelled Contracts</b>									
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
<b>Total: 6</b>									
<b>Closed Contracts</b>									
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***

#### ***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

**Total: 9**

#### ***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
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	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
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
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
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
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: 34**

**Open/Complete Contracts**

ML06035	City of Hemet, Public Works	11/10/2006	12/9/2012	1/9/2017	\$338,107.00	\$323,107.00	7 Nat Gas Trucks & New Nat Gas Infrastruct	\$15,000.00	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

**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 2006-2007 Contracts**

#### **Declined/Cancelled Contracts**

ML07031	City of Santa Monica				\$180,000.00	\$0.00	Upgrade N.G. Station to Add Hythane	\$180,000.00	No
ML07032	City of Huntington Beach Public Wor				\$25,000.00	\$0.00	One H.D. CNG Vehicle	\$25,000.00	No
ML07035	City of Los Angeles, General Service				\$350,000.00	\$0.00	New CNG Refueling Station/Southeast Yard	\$350,000.00	No
ML07038	City of Palos Verdes Estates				\$25,000.00	\$0.00	One H.D. LPG Vehicle	\$25,000.00	No
MS07010	Palos Verdes Peninsula Transit Auth				\$80,000.00	\$0.00	Repower 4 Transit Buses	\$80,000.00	No
MS07014	Clean Energy Fuels Corp.				\$350,000.00	\$0.00	New L/CNG Station - SERRF	\$350,000.00	No
MS07015	Baldwin Park Unified School District				\$57,500.00	\$0.00	New CNG Station	\$57,500.00	No
MS07016	County of Riverside Fleet Services D				\$36,359.00	\$0.00	New CNG Station - Rubidoux	\$36,359.00	No
MS07017	County of Riverside Fleet Services D				\$33,829.00	\$0.00	New CNG Station - Indio	\$33,829.00	No
MS07018	City of Cathedral City				\$350,000.00	\$0.00	New CNG Station	\$350,000.00	No
MS07021	City of Riverside				\$350,000.00	\$0.00	New CNG Station	\$350,000.00	No
MS07050	Southern California Disposal Co.				\$320,000.00	\$0.00	Ten Nat. Gas Refuse Trucks	\$320,000.00	No
MS07062	Caltrans Division of Equipment				\$1,081,818.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$1,081,818.00	No
MS07065	ECCO Equipment Corp.				\$174,525.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$174,525.00	No
MS07067	Recycled Materials Company of Calif				\$99,900.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$99,900.00	No
MS07069	City of Burbank	5/9/2008	3/8/2010	9/8/2011	\$8,895.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$8,895.00	No
MS07074	Albert W. Davies, Inc.	1/25/2008	11/24/2009		\$39,200.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$39,200.00	No
MS07081	Clean Diesel Technologies, Inc.				\$240,347.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$240,347.00	No
MS07082	DCL International, Inc.				\$153,010.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$153,010.00	No
MS07083	Dinex Exhausts, Inc.				\$52,381.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$52,381.00	No
MS07084	Donaldson Company, Inc.				\$42,416.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$42,416.00	No
MS07085	Engine Control Systems Limited				\$155,746.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$155,746.00	No
MS07086	Huss, LLC				\$84,871.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$84,871.00	No
MS07087	Mann+Hummel GmbH				\$189,361.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$189,361.00	No
MS07088	Nett Technologies, Inc.				\$118,760.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$118,760.00	No
MS07089	Rypos, Inc.				\$68,055.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$68,055.00	No
MS07090	Sud-Chemie				\$27,345.00	\$0.00	Off-Road Diesel Equipment Retrofit Program	\$27,345.00	No

**Total: 27**

#### **Closed Contracts**

ML07023	City of Riverside	6/20/2008	10/19/2014	7/19/2016	\$462,500.00	\$461,476.42	CNG Station Expansion/Purch. 14 H.D. Vehi	\$1,023.58	Yes
ML07024	City of Garden Grove	3/7/2008	9/6/2014	7/6/2016	\$75,000.00	\$75,000.00	Three H.D. CNG Vehicles	\$0.00	Yes
ML07025	City of San Bernardino	8/12/2008	7/11/2010		\$350,000.00	\$350,000.00	Maintenance Facility Modifications	\$0.00	Yes
ML07026	City of South Pasadena	6/13/2008	6/12/2014		\$25,000.00	\$25,000.00	One H.D. CNG Vehicle	\$0.00	Yes
ML07027	Los Angeles World Airports	6/3/2008	7/2/2014		\$25,000.00	\$25,000.00	One H.D. LNG Vehicle	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML07028	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Hollywood Yard	\$0.00	Yes
ML07029	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Venice Yard	\$0.00	Yes
ML07030	County of San Bernardino Public Wo	7/11/2008	9/10/2015		\$200,000.00	\$200,000.00	8 Natural Gas H.D. Vehicles	\$0.00	Yes
ML07033	City of La Habra	5/21/2008	6/20/2014	11/30/2013	\$25,000.00	\$25,000.00	One H.D. Nat Gas Vehicle	\$0.00	Yes
ML07034	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Van Nuys Yard	\$0.00	Yes
ML07036	City of Alhambra	1/23/2009	2/22/2015		\$50,000.00	\$50,000.00	2 H.D. CNG Vehicles	\$0.00	Yes
ML07037	City of Los Angeles, General Service	10/8/2008	10/7/2015		\$255,222.00	\$255,222.00	Upgrade LNG/LCNG Station/East Valley Yar	\$0.00	Yes
ML07039	City of Baldwin Park	6/6/2008	6/5/2014	8/5/2015	\$50,000.00	\$50,000.00	Two N.G. H.D. Vehicles	\$0.00	Yes
ML07040	City of Moreno Valley	6/3/2008	9/2/2014		\$25,000.00	\$25,000.00	One Heavy-Duty CNG Vehicle	\$0.00	Yes
ML07041	City of La Quinta	6/6/2008	6/5/2014		\$25,000.00	\$25,000.00	One CNG Street Sweeper	\$0.00	Yes
ML07042	City of La Quinta	8/15/2008	9/14/2010		\$100,000.00	\$100,000.00	Street Sweeping Operations	\$0.00	Yes
ML07046	City of Culver City Transportation De	5/2/2008	5/1/2014		\$25,000.00	\$25,000.00	One H.D. Nat. Gas Vehicle	\$0.00	Yes
ML07047	City of Cathedral City	6/16/2008	9/15/2014	3/15/2015	\$225,000.00	\$225,000.00	Two H.D. Nat. Gas Vehicles/New CNG Fueli	\$0.00	Yes
ML07048	City of Cathedral City	9/19/2008	10/18/2010		\$100,000.00	\$84,972.45	Street Sweeping Operations	\$15,027.55	Yes
MS07001	A-Z Bus Sales, Inc.	12/28/2006	12/31/2007	2/29/2008	\$1,920,000.00	\$1,380,000.00	CNG School Bus Buydown	\$540,000.00	Yes
MS07002	BusWest	1/19/2007	12/31/2007	3/31/2008	\$840,000.00	\$840,000.00	CNG School Bus Buydown	\$0.00	Yes
MS07003	Westport Fuel Systems, Inc.	11/2/2007	12/31/2011	6/30/2013	\$1,500,000.00	\$1,499,990.00	Advanced Nat. Gas Engine Incentive Progra	\$10.00	Yes
MS07005	S-W Compressors	3/17/2008	3/16/2010		\$60,000.00	\$7,500.00	Mountain CNG School Bus Demo Program-	\$52,500.00	Yes
MS07006	Coachella Valley Association of Gov	2/28/2008	10/27/2008		\$400,000.00	\$400,000.00	Coachella Valley PM10 Reduction Street Sw	\$0.00	Yes
MS07007	Los Angeles World Airports	5/2/2008	11/1/2014		\$420,000.00	\$420,000.00	Purchase CNG 21 Transit Buses	\$0.00	Yes
MS07009	Orange County Transportation Autho	5/14/2008	4/13/2016		\$800,000.00	\$800,000.00	Purchase 40 Transit Buses	\$0.00	Yes
MS07011	L A Service Authority for Freeway E	3/12/2010	5/31/2011	9/30/2011	\$700,000.00	\$700,000.00	"511" Commuter Services Campaign	\$0.00	Yes
MS07012	City of Los Angeles, General Service	6/13/2008	6/12/2009	6/12/2010	\$50,000.00	\$50,000.00	Maintenance Facility Modifications	\$0.00	Yes
MS07013	Rainbow Disposal Company, Inc.	1/25/2008	3/24/2014	9/24/2014	\$350,000.00	\$350,000.00	New High-Volume CNG Station	\$0.00	Yes
MS07019	City of Cathedral City	1/9/2009	6/8/2010		\$32,500.00	\$32,500.00	Maintenance Facility Modifications	\$0.00	Yes
MS07020	Avery Petroleum	5/20/2009	7/19/2015		\$250,000.00	\$250,000.00	New CNG Station	\$0.00	Yes
MS07049	Palm Springs Disposal Services	10/23/2008	11/22/2014	9/22/2016	\$96,000.00	\$96,000.00	Three Nat. Gas Refuse Trucks	\$0.00	Yes
MS07051	City of San Bernardino	8/12/2008	12/11/2014		\$480,000.00	\$480,000.00	15 Nat. Gas Refuse Trucks	\$0.00	Yes
MS07052	City of Redlands	7/30/2008	11/29/2014		\$160,000.00	\$160,000.00	Five Nat. Gas Refuse Trucks	\$0.00	Yes
MS07053	City of Claremont	7/31/2008	12/30/2014		\$96,000.00	\$96,000.00	Three Nat. Gas Refuse Trucks	\$0.00	Yes
MS07054	Republic Services, Inc.	3/7/2008	9/6/2014	9/6/2016	\$1,280,000.00	\$1,280,000.00	40 Nat. Gas Refuse Trucks	\$0.00	Yes
MS07055	City of Culver City Transportation De	7/8/2008	9/7/2014		\$192,000.00	\$192,000.00	Six Nat. Gas Refuse Trucks	\$0.00	Yes
MS07056	City of Whittier	9/5/2008	3/4/2015		\$32,000.00	\$32,000.00	One Nat. Gas Refuse Trucks	\$0.00	Yes
MS07057	CR&R, Inc.	7/31/2008	8/30/2014	6/30/2015	\$896,000.00	\$896,000.00	28 Nat. Gas Refuse Trucks	\$0.00	Yes
MS07058	The Better World Group	11/17/2007	11/16/2009	11/16/2011	\$247,690.00	\$201,946.21	MSRC Programmatic Outreach Services	\$45,743.79	Yes
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS07061	City of Los Angeles, Department of	10/31/2008	8/30/2010	2/28/2013	\$40,626.00	\$40,626.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07063	Shimmick Construction Company, In	4/26/2008	2/25/2010	8/25/2011	\$80,800.00	\$11,956.37	Off-Road Diesel Equipment Retrofit Program	\$68,843.63	Yes
MS07064	Altfillisch Contractors, Inc.	9/19/2008	7/18/2010	1/18/2011	\$160,000.00	\$155,667.14	Off-Road Diesel Equipment Retrofit Program	\$4,332.86	Yes
MS07068	Sukut Equipment Inc.	1/23/2009	11/22/2010	5/22/2012	\$26,900.00	\$26,900.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07070	Griffith Company	4/30/2008	2/28/2010	8/28/2012	\$168,434.00	\$125,504.00	Off-Road Diesel Equipment Retrofit Program	\$42,930.00	Yes
MS07071	Tiger 4 Equipment Leasing	9/19/2008	7/18/2010	1/18/2013	\$210,937.00	\$108,808.97	Off-Road Diesel Equipment Retrofit Program	\$102,128.03	Yes
MS07072	City of Culver City Transportation De	4/4/2008	2/3/2010	8/3/2011	\$72,865.00	\$72,865.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07075	Dan Copp Crushing	9/17/2008	7/16/2010	1/16/2012	\$73,600.00	\$40,200.00	Off-Road Diesel Equipment Retrofit Program	\$33,400.00	Yes
MS07076	Reed Thomas Company, Inc.	8/15/2008	6/14/2010	3/14/2012	\$339,073.00	\$100,540.00	Off-Road Diesel Equipment Retrofit Program	\$238,533.00	Yes
MS07077	USA Waste of California, Inc.	5/1/2009	12/31/2014		\$160,000.00	\$160,000.00	Five Nat. Gas Refuse Trucks (Santa Ana)	\$0.00	Yes
MS07078	USA Waste of California, Inc.	5/1/2009	12/31/2014	12/31/2015	\$256,000.00	\$256,000.00	Eight Nat. Gas Refuse Trucks (Dewey's)	\$0.00	Yes
MS07079	Riverside County Transportation Co	1/30/2009	7/29/2013	12/31/2011	\$20,000.00	\$15,165.45	BikeMetro Website Migration	\$4,834.55	Yes
MS07080	City of Los Angeles, Bureau of Sanit	10/31/2008	8/30/2010	8/28/2016	\$63,192.00	\$62,692.00	Off-Road Diesel Equipment Retrofit Program	\$500.00	No
MS07091	BusWest	10/16/2009	3/15/2010		\$33,660.00	\$33,660.00	Provide Lease for 2 CNG School Buses	\$0.00	Yes
MS07092	Riverside County Transportation Co	9/1/2010	10/31/2011		\$350,000.00	\$350,000.00	"511" Commuter Services Campaign	\$0.00	Yes

**Total: 57**

**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**

ML07043	City of Redondo Beach	9/28/2008	7/27/2014	10/27/2016	\$125,000.00	\$125,000.00	Five H.D. CNG Transit Vehicles	\$0.00	Yes
ML07044	City of Santa Monica	9/8/2008	3/7/2015	3/7/2017	\$600,000.00	\$600,000.00	24 H.D. Nat. Gas Vehicles	\$0.00	No
MS07008	City of Los Angeles, Department of T	9/18/2009	5/17/2020	9/17/2017	\$1,900,000.00	\$1,900,000.00	Purchase 95 Transit Buses	\$0.00	Yes
MS07022	CSULA Hydrogen Station and Resea	10/30/2009	12/29/2015	10/29/2019	\$250,000.00	\$250,000.00	New Hydrogen Fueling Station	\$0.00	Yes

**Total: 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 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
ML08043	City of Desert Hot Springs	9/25/2009	3/24/2016	3/24/2021	\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	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
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: 5**

#### **Declined/Cancelled Contracts**

ML08032	City of Irvine	5/1/2009	8/31/2010		\$9,000.00	\$0.00	36 Vehicles (Diagnostic)	\$9,000.00	No
ML08041	City of Los Angeles, Dept of Transpo	8/6/2010	7/5/2011	12/5/2011	\$8,800.00	\$0.00	73 Vehicles (Diagnostic)	\$8,800.00	No
ML08049	City of Cerritos	3/20/2009	1/19/2015	2/19/2017	\$25,000.00	\$0.00	1 CNG Heavy-Duty Vehicle	\$25,000.00	No
ML08051	City of Colton				\$75,000.00	\$0.00	3 CNG Heavy-Duty Vehicles	\$75,000.00	No
ML08080	City of Irvine	5/1/2009	5/31/2015		\$50,000.00	\$0.00	Two Heavy-Duty Nat. Gas Vehicles	\$50,000.00	No
MS08002	Orange County Transportation Autho				\$1,500,000.00	\$0.00	Big Rig Freeway Service Patrol	\$1,500,000.00	No
MS08008	Diversified Truck Rental & Leasing				\$300,000.00	\$0.00	10 H.D. Nat. Gas Vehicles	\$300,000.00	No
MS08010	Orange County Transportation Autho				\$10,000.00	\$0.00	20 H.D. Nat. Gas Vehicles	\$10,000.00	No
MS08011	Green Fleet Systems, LLC				\$10,000.00	\$0.00	30 H.D. Nat. Gas Vehicles	\$10,000.00	No
MS08052	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014	11/23/2015	\$100,000.00	\$0.00	New CNG Station - Fontana	\$100,000.00	No
MS08054	Clean Energy Fuels Corp.				\$400,000.00	\$0.00	New LNG Station - Fontana	\$400,000.00	No
MS08055	Clean Energy Fuels Corp.	11/26/2009	3/25/2016	3/25/2017	\$400,000.00	\$0.00	New LNG Station - Long Beach-Pier S	\$400,000.00	No
MS08059	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014		\$100,000.00	\$0.00	New CNG Station - San Bernardino	\$100,000.00	No
MS08060	Burrtec Waste Industries, Inc.	12/24/2008	11/23/2014		\$100,000.00	\$0.00	New CNG Station - Azusa	\$100,000.00	No
MS08062	Go Natural Gas	9/25/2009	1/24/2016	1/24/2017	\$400,000.00	\$0.00	New CNG Station - Rialto	\$400,000.00	No
MS08074	Fontana Unified School District	11/14/2008	12/13/2014		\$200,000.00	\$0.00	Expansion of Existing CNG station	\$200,000.00	No
MS08077	Hythane Company, LLC				\$144,000.00	\$0.00	Upgrade Station to Hythane	\$144,000.00	No

**Total: 17**

#### **Closed Contracts**

ML08023	City of Villa Park	11/7/2008	10/6/2012		\$6,500.00	\$5,102.50	Upgrade of Existing Refueling Facility	\$1,397.50	Yes
ML08026	Los Angeles County Department of P	7/20/2009	7/19/2016		\$250,000.00	\$250,000.00	10 LPG Heavy-Duty Vehicles	\$0.00	Yes
ML08027	Los Angeles County Department of P	7/20/2009	1/19/2011	1/19/2012	\$6,901.00	\$5,124.00	34 Vehicles (Diagnostic)	\$1,777.00	Yes
ML08029	City of Gardena	3/19/2009	1/18/2015		\$25,000.00	\$25,000.00	1 Propane Heavy-Duty Vehicle	\$0.00	Yes
ML08030	City of Azusa	5/14/2010	3/13/2016		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	No
ML08031	City of Claremont	3/27/2009	3/26/2013	3/26/2015	\$97,500.00	\$97,500.00	Upgrade of Existing CNG Station, Purchase	\$0.00	Yes
ML08033	County of San Bernardino Public Wo	4/3/2009	2/2/2010		\$14,875.00	\$14,875.00	70 Vehicles (Diagnostic)	\$0.00	Yes
ML08034	County of San Bernardino Public Wo	3/27/2009	7/26/2015		\$150,000.00	\$150,000.00	8 CNG Heavy-Duty Vehicles	\$0.00	Yes

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
ML08042	City of Ontario, Housing & Municipal	5/1/2009	1/31/2016		\$175,000.00	\$175,000.00	7 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08044	City of Chino	3/19/2009	3/18/2015		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes
ML08045	City of Santa Clarita	2/20/2009	6/19/2010		\$3,213.00	\$3,150.00	14 Vehicles (Diagnostic)	\$63.00	Yes
ML08046	City of Paramount	2/20/2009	2/19/2015		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes
ML08047	City of Culver City Transportation De	5/12/2009	8/11/2015		\$150,000.00	\$150,000.00	6 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08048	City of Santa Clarita	2/20/2009	6/19/2015		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes
MS08001	Los Angeles County MTA	12/10/2010	6/9/2014		\$1,500,000.00	\$1,499,999.66	Big Rig Freeway Service Patrol	\$0.34	Yes
MS08003	A-Z Bus Sales, Inc.	5/2/2008	12/31/2008	2/28/2009	\$1,480,000.00	\$1,400,000.00	Alternative Fuel School Bus Incentive Progra	\$80,000.00	Yes
MS08004	BusWest	5/2/2008	12/31/2008		\$1,440,000.00	\$1,440,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS08005	Burrtec Waste Industries, Inc.	10/23/2008	11/22/2014	10/22/2015	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles - Azusa	\$0.00	Yes
MS08006	Burrtec Waste Industries, Inc.	10/23/2008	11/22/2014	10/22/2015	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles - Saugus	\$0.00	Yes
MS08009	Los Angeles World Airports	12/24/2008	12/23/2014		\$870,000.00	\$870,000.00	29 H.D. Nat. Gas Vehicles	\$0.00	Yes
MS08012	California Cartage Company, LLC	12/21/2009	10/20/2015	4/20/2016	\$480,000.00	\$480,000.00	12 H.D. Nat. Gas Yard Tractors	\$0.00	Yes
MS08014	City of San Bernardino	12/5/2008	6/4/2015		\$390,000.00	\$360,000.00	13 H.D. Nat. Gas Vehicles	\$30,000.00	Yes
MS08015	Yosemite Waters	5/12/2009	5/11/2015		\$180,000.00	\$117,813.60	11 H.D. Propane Vehicles	\$62,186.40	Yes
MS08016	TransVironmental Solutions, Inc.	1/23/2009	12/31/2010	9/30/2011	\$227,198.00	\$80,351.34	Rideshare 2 School Program	\$146,846.66	Yes
MS08019	Enterprise Rent-A-Car Company of L	2/12/2010	7/11/2016		\$300,000.00	\$300,000.00	10 CNG Vehicles	\$0.00	Yes
MS08020	Ware Disposal Company, Inc.	11/25/2008	2/24/2016		\$900,000.00	\$900,000.00	30 CNG Vehicles	\$0.00	Yes
MS08021	CalMet Services, Inc.	1/9/2009	1/8/2016	7/8/2016	\$900,000.00	\$900,000.00	30 CNG Vehicles	\$0.00	Yes
MS08022	SunLine Transit Agency	12/18/2008	3/17/2015		\$311,625.00	\$311,625.00	15 CNG Buses	\$0.00	Yes
MS08053	City of Los Angeles, Bureau of Sanit	2/18/2009	12/17/2015		\$400,000.00	\$400,000.00	New LNG/CNG Station	\$0.00	Yes
MS08056	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		\$400,000.00	\$400,000.00	New LNG Station - POLB-Anah. & I	\$0.00	Yes
MS08057	Orange County Transportation Autho	5/14/2009	7/13/2015		\$400,000.00	\$400,000.00	New CNG Station - Garden Grove	\$0.00	Yes
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
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
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS08075	Disneyland Resort	12/10/2008	2/1/2015		\$200,000.00	\$200,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS08078	SunLine Transit Agency	12/10/2008	6/9/2015	2/9/2016	\$189,000.00	\$189,000.00	CNG Station Upgrade	\$0.00	Yes
MS09002	A-Z Bus Sales, Inc.	11/7/2008	12/31/2009	12/31/2010	\$2,520,000.00	\$2,460,000.00	Alternative Fuel School Bus Incentive Progra	\$60,000.00	Yes
MS09004	A-Z Bus Sales, Inc.	1/30/2009	3/31/2009		\$156,000.00	\$156,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS09047	BusWest	7/9/2010	12/31/2010	4/30/2011	\$480,000.00	\$480,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes

**Total: 50**

**Closed/Incomplete Contracts**

ML08025	Los Angeles County Department of P	10/30/2009	3/29/2011		\$75,000.00	\$0.00	150 Vehicles (Diagnostic)	\$75,000.00	No
MS08079	ABC Unified School District	1/16/2009	12/15/2009	12/15/2010	\$50,000.00	\$0.00	Maintenance Facility Modifications	\$50,000.00	No

**Total: 2**

**Open/Complete Contracts**

ML08024	City of Anaheim	7/9/2010	7/8/2017	1/8/2018	\$425,000.00	\$425,000.00	9 LPG Buses and 8 CNG Buses	\$0.00	Yes
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
ML08040	City of Riverside	9/11/2009	9/10/2016	3/10/2019	\$455,500.00	\$455,500.00	16 CNG Vehicles, Expand CNG Station & M	\$0.00	Yes
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
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
MS08058	Clean Energy Fuels Corp.	11/26/2009	3/25/2016	3/25/2017	\$400,000.00	\$400,000.00	New CNG Station - Ontario Airport	\$0.00	Yes
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
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

**Total: 9**

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
<b>FY 2008-2009 Contracts</b>									
<b>Open Contracts</b>									
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
<b>Total: 2</b>									
<b>Declined/Cancelled Contracts</b>									
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
<b>Total: 11</b>									
<b>Closed Contracts</b>									
ML09007	City of Rancho Cucamonga	2/26/2010	4/25/2012		\$117,500.00	\$62,452.57	Maintenance Facility Modification	\$55,047.43	Yes
ML09010	City of Palm Springs	1/8/2010	2/7/2016		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09011	City of San Bernardino	2/19/2010	5/18/2016		\$250,000.00	\$250,000.00	10 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09012	City of Gardena	3/12/2010	11/11/2015		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09013	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$144,470.00	\$128,116.75	Traffic Signal Synchr./Moreno Valley	\$16,353.25	Yes
ML09014	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$113,030.00	\$108,495.94	Traffic Signal Synchr./Corona	\$4,534.06	Yes
ML09015	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$80,060.00	\$79,778.52	Traffic Signal Synchr./Co. of Riverside	\$281.48	Yes
ML09016	County of San Bernardino Public Wo	1/28/2010	3/27/2014		\$50,000.00	\$50,000.00	Install New CNG Station	\$0.00	Yes
ML09020	County of San Bernardino	8/16/2010	2/15/2012		\$49,770.00	\$49,770.00	Remote Vehicle Diagnostics/252 Vehicles	\$0.00	Yes
ML09021	City of Palm Desert	7/9/2010	3/8/2012		\$39,450.00	\$38,248.87	Traffic Signal Synchr./Rancho Mirage	\$1,201.13	Yes
ML09024	Los Angeles County Department of P	10/15/2010	12/14/2012	6/14/2013	\$400,000.00	\$0.00	Maintenance Facility Modifications	\$400,000.00	No
ML09027	Los Angeles County Department of P	7/23/2010	3/22/2012	6/22/2012	\$150,000.00	\$150,000.00	Freeway Detector Map Interface	\$0.00	Yes
ML09029	City of Whittier	11/6/2009	4/5/2016		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09030	City of Los Angeles GSD/Fleet Servi	6/18/2010	6/17/2011		\$22,310.00	\$22,310.00	Remote Vehicle Diagnostics/107 Vehicles	\$0.00	Yes
ML09034	City of La Palma	11/25/2009	6/24/2015		\$25,000.00	\$25,000.00	1 LPG Heavy-Duty Vehicle	\$0.00	Yes
ML09037	City of Redondo Beach	6/18/2010	6/17/2016		\$50,000.00	\$50,000.00	Purchase Two CNG Sweepers	\$0.00	Yes
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML09047	Los Angeles County Department of P	8/13/2014	8/12/2015	11/12/2015	\$400,000.00	\$272,924.53	Maintenance Facility Modifications	\$127,075.47	No
MS09001	Administrative Services Co-Op/Long	3/5/2009	6/30/2012	12/31/2013	\$225,000.00	\$150,000.00	15 CNG Taxicabs	\$75,000.00	Yes
MS09005	Gas Equipment Systems, Inc.	6/19/2009	10/18/2010		\$71,000.00	\$71,000.00	Provide Temp. Fueling for Mountain Area C	\$0.00	Yes

**Total: 20**

**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	Yes
ML09009	City of South Pasadena	11/5/2010	12/4/2016	3/4/2019	\$125,930.00	\$125,930.00	CNG Station Expansion	\$0.00	Yes
ML09023	Los Angeles County Department of P	12/10/2010	12/9/2017		\$50,000.00	\$50,000.00	2 Heavy-Duty Alternative Fuel Transit Vehicl	\$0.00	Yes
ML09026	Los Angeles County Department of P	10/15/2010	10/14/2017	4/14/2019	\$150,000.00	\$80,411.18	3 Off-Road Vehicles Repowers	\$69,588.82	Yes
ML09031	City of Los Angeles, Department of	10/29/2010	10/28/2017		\$825,000.00	\$825,000.00	33 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09032	Los Angeles World Airports	4/8/2011	4/7/2018		\$175,000.00	\$175,000.00	7 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09035	City of Fullerton	6/17/2010	6/16/2017	12/16/2018	\$450,000.00	\$450,000.00	2 Heavy-Duty CNG Vehicles & Install CNG	\$0.00	Yes
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

**Total: 11**

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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## FY 2010-2011 Contracts

### Open Contracts

ML11020	City of Indio	2/1/2013	3/31/2019	9/30/2019	\$30,000.00	\$0.00	Retrofit one H.D. Vehicles w/DECS, repower	\$30,000.00	No
ML11024	County of Los Angeles, Dept of Publi	12/5/2014	6/4/2022		\$90,000.00	\$0.00	Purchase 3 Nat. Gas H.D. Vehicles	\$90,000.00	No
ML11029	City of Santa Ana	9/7/2012	3/6/2020	3/6/2023	\$262,500.00	\$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	1/3/2022	\$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	1/6/2021	\$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
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
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
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: 14**

### Declined/Cancelled Contracts

MS11013	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Huntington Beach	\$150,000.00	No
MS11014	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Santa Ana	\$150,000.00	No
MS11015	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Inglewood	\$150,000.00	No
MS11046	Luis Castro				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11047	Ivan Borjas				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11048	Phase II Transportation				\$1,080,000.00	\$0.00	Repower 27 Heavy-Duty Vehicles	\$1,080,000.00	No
MS11049	Ruben Caceras				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11050	Carlos Arrue				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11051	Francisco Vargas				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11053	Jose Ivan Soltero				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11054	Albino Meza				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11059	Go Natural Gas				\$150,000.00	\$0.00	New Public Access CNG Station - Paramou	\$150,000.00	No
MS11063	Standard Concrete Products				\$310,825.00	\$0.00	Retrofit Two Off-Road Vehicles under Showc	\$310,825.00	No
MS11070	American Honda Motor Company				\$100,000.00	\$0.00	Expansion of Existing CNG Station	\$100,000.00	No
MS11072	Trillium USA Company DBA Californi				\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS11077	DCL America Inc.				\$263,107.00	\$0.00	Retrofit of 13 Off-Road Diesel Vehicles with	\$263,107.00	No
MS11083	Catrac 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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
ML11027	City of Los Angeles, Dept. of Genera	5/4/2012	7/3/2015	1/3/2016	\$300,000.00	\$300,000.00	Maintenance Facility Modifications	\$0.00	No
ML11035	City of La Quinta	11/18/2011	11/17/2012		\$25,368.00	\$25,368.00	Retrofit 3 On-Road Vehicles w/DECS	\$0.00	Yes
MS11001	Mineral LLC	4/22/2011	4/30/2013	4/30/2015	\$111,827.00	\$103,136.83	Design, Develop, Host and Maintain MSRC	\$8,690.17	Yes
MS11002	A-Z Bus Sales, Inc.	7/15/2011	12/31/2011	6/30/2013	\$1,705,000.00	\$1,705,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS11003	BusWest	7/26/2011	12/31/2011	12/31/2012	\$1,305,000.00	\$1,305,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS11004	Los Angeles County MTA	9/9/2011	2/29/2012		\$450,000.00	\$299,743.34	Clean Fuel Transit Service to Dodger Stadiu	\$150,256.66	Yes
MS11006	Orange County Transportation Autho	10/7/2011	2/29/2012	8/31/2012	\$268,207.00	\$160,713.00	Metrolink Service to Angel Stadium	\$107,494.00	Yes
MS11018	Orange County Transportation Autho	10/14/2011	1/31/2012		\$211,360.00	\$211,360.00	Express Bus Service to Orange County Fair	\$0.00	Yes
MS11052	Krisda Inc	9/27/2012	6/26/2013		\$120,000.00	\$120,000.00	Repower Three Heavy-Duty Vehicles	\$0.00	Yes
MS11056	The Better World Group	12/30/2011	12/29/2013	12/29/2015	\$206,836.00	\$186,953.46	Programmatic Outreach Services	\$19,882.54	Yes
MS11057	Riverside County Transportation Co	7/28/2012	3/27/2013		\$100,000.00	\$89,159.40	Develop and Implement 511 "Smart Phone"	\$10,840.60	Yes
MS11058	L A Service Authority for Freeway E	5/31/2013	4/30/2014		\$123,395.00	\$123,395.00	Implement 511 "Smart Phone" Application	\$0.00	Yes
MS11061	Eastern Municipal Water District	3/29/2012	5/28/2015		\$11,659.00	\$1,450.00	Retrofit One Off-Road Vehicle under Showc	\$10,209.00	Yes
MS11074	SunLine Transit Agency	5/11/2012	7/31/2012		\$41,849.00	\$22,391.00	Transit Service for Coachella Valley Festival	\$19,458.00	Yes
MS11080	Southern California Regional Rail Au	4/6/2012	7/31/2012		\$26,000.00	\$26,000.00	Metrolink Service to Auto Club Speedway	\$0.00	Yes
MS11086	DCL America Inc.	6/7/2013	10/6/2016		\$500,000.00	\$359,076.96	Retrofit Eight H.D. Off-Road Vehicles Under	\$140,923.04	Yes
MS11087	Cemex Construction Material Pacific,	10/16/2012	2/15/2016		\$448,766.00	\$448,760.80	Retrofit 13 H.D. Off-Road Vehicles Under Sh	\$5.20	Yes

**Total: 18**

#### Closed/Incomplete Contracts

MS11064	City of Hawthorne	7/28/2012	8/27/2018	8/27/2019	\$175,000.00	\$0.00	New Limited Access CNG Station	\$175,000.00	No
MS11076	SA Recycling, LLC	5/24/2012	9/23/2015		\$424,801.00	\$0.00	Retrofit of 13 Off-Road Diesel Vehicles with	\$424,801.00	No
MS11081	Metropolitan Stevedore Company	9/7/2012	1/6/2016		\$45,416.00	\$0.00	Install DECS on Two Off-Road Vehicles	\$45,416.00	No
MS11082	Baumot North America, LLC	8/2/2012	12/1/2015		\$65,958.00	\$4,350.00	Install DECS on Four Off-Road Vehicles	\$61,608.00	Yes

**Total: 4**

#### Open/Complete Contracts

ML11021	City of Whittier	1/27/2012	9/26/2018	6/26/2019	\$210,000.00	\$210,000.00	Purchase 7 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11022	City of Anaheim	3/16/2012	7/15/2018		\$150,000.00	\$150,000.00	Purchase of 5 H.D. Vehicles	\$0.00	Yes
ML11023	City of Rancho Cucamonga	4/20/2012	12/19/2018	9/19/2020	\$260,000.00	\$260,000.00	Expand Existing CNG Station, 2 H.D. Vehicl	\$0.00	Yes
ML11025	County of Los Angeles Department o	3/14/2014	9/13/2021		\$150,000.00	\$150,000.00	Purchase 5 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11026	City of Redlands	3/2/2012	10/1/2018		\$90,000.00	\$90,000.00	Purchase 3 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11028	City of Glendale	1/13/2012	5/12/2018		\$300,000.00	\$300,000.00	Purchase 10 H.D. CNG Vehicles	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML11030	City of Fullerton	2/3/2012	3/2/2018		\$109,200.00	\$109,200.00	Purchase 2 Nat. Gas H.D. Vehicles, Retrofit	\$0.00	Yes
ML11031	City of Culver City Transportation De	12/2/2011	12/1/2018		\$300,000.00	\$300,000.00	Purchase 10 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML11033	City of Los Angeles, Bureau of Sanit	3/16/2012	1/15/2019		\$1,080,000.00	\$1,080,000.00	Purchase 36 LNG H.D. Vehicles	\$0.00	Yes
ML11034	City of Los Angeles, Department of	5/4/2012	1/3/2019		\$630,000.00	\$630,000.00	Purchase 21 H.D. CNG Vehicles	\$0.00	Yes
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	Yes
ML11043	City of Hemet Public Works	2/3/2012	2/2/2019		\$60,000.00	\$60,000.00	Purchase 2 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML11044	City of Ontario, Housing & Municipal	1/27/2012	6/26/2019		\$400,000.00	\$400,000.00	Expand Existing CNG Station	\$0.00	Yes
MS11008	USA Waste of California, Inc.	10/24/2013	4/23/2020		\$125,000.00	\$125,000.00	Expansion of Existing LCNG Station	\$0.00	Yes
MS11009	USA Waste of California, Inc.	10/24/2013	4/23/2020		\$125,000.00	\$125,000.00	Expansion of Existing LCNG Station	\$0.00	Yes
MS11010	Border Valley Trading	8/26/2011	10/25/2017	4/25/2020	\$150,000.00	\$150,000.00	New LNG Station	\$0.00	Yes
MS11011	EDCO Disposal Corporation	12/30/2011	4/29/2019		\$100,000.00	\$100,000.00	New CNG Station - Signal Hill	\$0.00	Yes
MS11012	EDCO Disposal Corporation	12/30/2011	4/29/2019		\$100,000.00	\$100,000.00	New CNG Station - Buena Park	\$0.00	Yes
MS11016	CR&R Incorporated	4/12/2013	10/11/2019		\$100,000.00	\$100,000.00	New CNG Station - Perris	\$0.00	Yes
MS11017	CR&R, Inc.	3/2/2012	2/1/2018		\$100,000.00	\$100,000.00	Expansion of existing station - Garden Grove	\$0.00	Yes
MS11019	City of Corona	11/29/2012	4/28/2020		\$225,000.00	\$225,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11055	KEC Engineering	2/3/2012	8/2/2018	8/2/2019	\$200,000.00	\$200,000.00	Repower 5 H.D. Off-Road Vehicles	\$0.00	Yes
MS11060	Rowland Unified School District	8/17/2012	1/16/2019	1/16/2020	\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS11066	Torrance Unified School District	11/19/2012	9/18/2018		\$42,296.00	\$42,296.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11067	City of Redlands	5/24/2012	11/23/2018	11/23/2019	\$85,000.00	\$85,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11068	Ryder System Inc.	7/28/2012	10/27/2018		\$175,000.00	\$175,000.00	New Public Access L/CNG Station (Fontana)	\$0.00	Yes
MS11069	Ryder System Inc.	7/28/2012	8/27/2018		\$175,000.00	\$175,000.00	New Public Access L/CNG Station (Orange)	\$0.00	Yes
MS11071	City of Torrance Transit Department	12/22/2012	1/21/2019	1/21/2020	\$175,000.00	\$166,250.00	New Limited Access CNG Station	\$8,750.00	Yes
MS11073	Los Angeles Unified School District	9/11/2015	2/10/2022		\$175,000.00	\$175,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11079	Bear Valley Unified School District	2/5/2013	10/4/2019		\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes

**Total: 32**

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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## FY 2011-2012 Contracts

### Open Contracts

ML12014	City of Santa Ana	11/8/2013	8/7/2020		\$384,000.00	\$4,709.00	9 H.D. Nat. Gas & LPG Trucks, EV Charging	\$379,291.00	No
ML12015	City of Fullerton	4/25/2013	11/24/2020	11/24/2021	\$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	\$900,000.00	32 H.D. Nat. Gas Vehicles	\$50,000.00	No
ML12018	City of West Covina	10/18/2013	10/17/2020	1/17/2022	\$300,000.00	\$0.00	Expansion of Existing CNG Station	\$300,000.00	No
ML12041	City of Anaheim Public Utilities Depa	4/4/2014	11/3/2015	11/3/2016	\$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
ML12051	City of Bellflower	2/7/2014	2/6/2016	2/6/2017	\$170,000.00	\$0.00	EV Charging Infrastructure	\$170,000.00	No
ML12057	City of Coachella	8/28/2013	8/27/2019	1/27/2022	\$57,456.00	\$10,375.80	Purchase One Nat. Gas H.D. Vehicle/Street	\$47,080.20	No
ML12090	City of Palm Springs	10/9/2015	10/8/2021		\$21,163.00	\$0.00	EV Charging Infrastructure	\$21,163.00	No
MS12008	Bonita Unified School District	7/12/2013	12/11/2019	4/11/2021	\$175,000.00	\$0.00	Construct New Limited-Access CNG Station	\$175,000.00	No
MS12011	Southern California Gas Company	6/14/2013	6/13/2019	3/13/2021	\$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	11/12/2020	\$150,000.00	\$0.00	Construct New Public-Access CNG Station -	\$150,000.00	No
MS12033	Mike Diamond/Phace Management	12/22/2012	12/21/2018	6/21/2021	\$500,000.00	\$134,010.00	Purchase 20 Medium-Heavy Duty Vehicles	\$365,990.00	No
MS12034	Ware Disposal Company, Inc.	11/2/2012	11/1/2018	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	\$333,734.27	Implement Westside Bikeshare Program	\$166,265.73	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	1/26/2022	\$100,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$100,000.00	No
MS12077	City of Coachella	6/14/2013	6/13/2020		\$225,000.00	\$0.00	Construct New CNG Station	\$225,000.00	No
MS12080	City of Pasadena	11/8/2013	8/7/2020	2/7/2022	\$225,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$225,000.00	No
MS12083	Brea Olinda Unified School District	7/30/2015	2/29/2024		\$59,454.00	\$0.00	Install New CNG Infrastructure	\$59,454.00	No
MS12084	Airport Mobil Inc.	12/6/2013	5/5/2020		\$150,000.00	\$0.00	Install New CNG Infrastructure	\$150,000.00	No
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
MS12089	Riverside County Transportation Co	10/18/2013	9/17/2015		\$249,136.00	\$105,747.48	Implement Rideshare Incentives Program	\$143,388.52	No
MS12Hom	Mansfield Gas Equipment Systems				\$296,000.00	\$0.00	Home Refueling Apparatus Incentive Progra	\$296,000.00	No

**Total: 28**

### 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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML12053	City of Mission Viejo				\$60,000.00	\$0.00	EV Charging Infrastructure	\$60,000.00	No
MS12007	WestAir Gases & Equipment				\$100,000.00	\$0.00	Construct New Limited-Access CNG Station	\$100,000.00	No
MS12027	C.V. Ice Company, Inc.	5/17/2013	11/16/2019		\$75,000.00	\$0.00	Purchase 3 Medium-Heavy Duty Vehicles	\$75,000.00	No
MS12030	Complete Landscape Care, Inc.				\$150,000.00	\$0.00	Purchase 6 Medium-Heavy Duty Vehicles	\$150,000.00	No
MS12070	Valley Music Travel/CID Entertainme				\$99,000.00	\$0.00	Implement Shuttle Service to Coachella Mus	\$99,000.00	No

**Total: 9**

**Closed Contracts**

ML12013	City of Pasadena	10/19/2012	3/18/2015	9/18/2015	\$200,000.00	\$65,065.00	Electric Vehicle Charging Infrastructure	\$134,935.00	Yes
ML12019	City of Palm Springs	9/6/2013	7/5/2015		\$38,000.00	\$16,837.00	EV Charging Infrastructure	\$21,163.00	Yes
ML12021	City of Rancho Cucamonga	9/14/2012	1/13/2020		\$40,000.00	\$40,000.00	Four Medium-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12023	County of Los Angeles Internal Servi	8/1/2013	2/28/2015		\$250,000.00	\$192,333.00	EV Charging Infrastructure	\$57,667.00	Yes
ML12037	Coachella Valley Association of Gov	3/14/2013	3/13/2014		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML12049	City of Rialto Public Works	7/14/2014	9/13/2015		\$30,432.00	\$3,265.29	EV Charging Infrastructure	\$27,166.71	Yes
ML12050	City of Baldwin Park	4/25/2013	4/24/2014	10/24/2014	\$402,400.00	\$385,363.00	EV Charging Infrastructure	\$17,037.00	Yes
ML12054	City of Palm Desert	9/30/2013	2/28/2015		\$77,385.00	\$77,385.00	EV Charging Infrastructure	\$0.00	Yes
ML12056	City of Cathedral City	3/26/2013	5/25/2014		\$25,000.00	\$25,000.00	Regional Street Sweeping Program	\$0.00	Yes
ML12066	City of Manhattan Beach	1/7/2014	4/6/2015		\$5,900.00	\$5,900.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
MS12001	Los Angeles County MTA	7/1/2012	4/30/2013		\$300,000.00	\$211,170.00	Clean Fuel Transit Service to Dodger Stadiu	\$88,830.00	Yes
MS12002	Orange County Transportation Autho	9/7/2012	4/30/2013		\$342,340.00	\$333,185.13	Express Bus Service to Orange County Fair	\$9,154.87	Yes
MS12003	Orange County Transportation Autho	7/20/2012	2/28/2013		\$234,669.00	\$167,665.12	Implement Metrolink Service to Angel Stadiu	\$67,003.88	Yes
MS12005	USA Waste of California, Inc.	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12006	Waste Management Collection & Re	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12012	Rim of the World Unified School Dist	12/20/2012	5/19/2014		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12059	Orange County Transportation Autho	2/28/2013	12/27/2014		\$75,000.00	\$75,000.00	Maintenance Facilities Modifications	\$0.00	Yes
MS12061	Orange County Transportation Autho	3/14/2014	3/13/2017		\$224,000.00	\$114,240.00	Transit-Oriented Bicycle Sharing Program	\$109,760.00	Yes
MS12062	Fraser Communications	12/7/2012	5/31/2014		\$998,669.00	\$989,218.49	Develop & Implement "Rideshare Thursday"	\$9,450.51	Yes
MS12064	Anaheim Transportation Network	3/26/2013	12/31/2014		\$127,296.00	\$56,443.92	Implement Anaheim Circulator Service	\$70,852.08	Yes
MS12065	Orange County Transportation Autho	7/27/2013	11/30/2013		\$43,933.00	\$14,832.93	Ducks Express Service to Honda Center	\$29,100.07	Yes
MS12068	Southern California Regional Rail Au	3/1/2013	9/30/2013		\$57,363.00	\$47,587.10	Implement Metrolink Service to Autoclub Sp	\$9,775.90	Yes
MS12069	City of Irvine	8/11/2013	2/28/2014		\$45,000.00	\$26,649.41	Implement Special Transit Service to Solar	\$18,350.59	Yes
MS12076	City of Ontario, Housing & Municipal	3/8/2013	4/7/2015		\$75,000.00	\$75,000.00	Maintenance Facilities Modification	\$0.00	Yes
MS12078	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$73,107.00	Maintenance Facility Modifications - Vernon	\$1,893.00	Yes
MS12081	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$75,000.00	Maintenance Facility Modifications - Santa A	\$0.00	Yes
MS12085	Bear Valley Unified School District	4/25/2013	6/24/2014		\$75,000.00	\$75,000.00	Maintenance Facility Modifications	\$0.00	Yes
MS12087	Los Angeles County MTA	8/29/2013	11/28/2015		\$125,000.00	\$125,000.00	Implement Rideshare Incentives Program	\$0.00	Yes
MS12088	Orange County Transportation Autho	12/6/2013	3/5/2016		\$125,000.00	\$18,496.50	Implement Rideshare Incentives Program	\$106,503.50	Yes

**Total: 29**

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
<b>Closed/Incomplete Contracts</b>									
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
<b>Total: 1</b>									
<b>Open/Complete Contracts</b>									
ML12020	City of Los Angeles, Department of	9/27/2012	3/26/2019	3/26/2020	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12022	City of La Puente	12/6/2013	6/5/2020		\$110,000.00	\$110,000.00	2 Medium-Duty and Three Heavy-Duty CNG	\$0.00	Yes
ML12039	City of Redlands	2/8/2013	10/7/2019		\$90,000.00	\$90,000.00	Three Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
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	Yes
ML12055	City of Manhattan Beach	3/1/2013	12/31/2018		\$10,000.00	\$10,000.00	One Medium-Duty Nat. Gas Vehicle	\$0.00	Yes
MS12004	USA Waste of California, Inc.	10/24/2013	11/23/2019		\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12009	Sysco Food Services of Los Angeles	1/7/2014	4/6/2020		\$150,000.00	\$150,000.00	Construct New Public-Access LNG Station	\$0.00	Yes
MS12010	Murrieta Valley Unified School Distric	4/5/2013	9/4/2019		\$242,786.00	\$242,786.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12025	Silverado Stages, Inc.	11/2/2012	7/1/2018		\$150,000.00	\$150,000.00	Purchase Six Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12026	U-Haul Company of California	3/14/2013	3/13/2019		\$500,000.00	\$353,048.26	Purchase 23 Medium-Heavy Duty Vehicles	\$146,951.74	Yes
MS12028	Dy-Dee Service of Pasadena, Inc.	12/22/2012	1/21/2019		\$45,000.00	\$40,000.00	Purchase 2 Medium-Duty and 1 Medium-He	\$5,000.00	Yes
MS12029	Community Action Partnership of Or	11/2/2012	11/1/2018		\$25,000.00	\$14,850.00	Purchase 1 Medium-Heavy Duty Vehicle	\$10,150.00	Yes
MS12031	Final Assembly, Inc.	11/2/2012	11/1/2018		\$50,000.00	\$32,446.00	Purchase 2 Medium-Heavy Duty Vehicles	\$17,554.00	Yes
MS12032	Fox Transportation	12/14/2012	12/13/2018		\$500,000.00	\$500,000.00	Purchase 20 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12035	Disneyland Resort	1/4/2013	7/3/2019		\$25,000.00	\$18,900.00	Purchase 1 Medium-Heavy Duty Vehicle	\$6,100.00	Yes
MS12036	Jim & Doug Carter's Automotive/VS	1/4/2013	11/3/2018		\$50,000.00	\$50,000.00	Purchase 2 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12058	Krisda Inc	4/24/2013	1/23/2019		\$25,000.00	\$25,000.00	Repower One Heavy-Duty Off-Road Vehicle	\$0.00	Yes
MS12063	Custom Alloy Light Metals, Inc.	8/16/2013	2/15/2020		\$100,000.00	\$100,000.00	Install New Limited Access CNG Station	\$0.00	Yes
MS12071	Transit Systems Unlimited, Inc.	5/17/2013	12/16/2018		\$21,250.00	\$21,250.00	Expansion of Existing CNG Station	\$0.00	Yes
MS12072	99 Cents Only Stores	4/5/2013	9/4/2019		\$100,000.00	\$100,000.00	Construct New CNG Station	\$0.00	Yes
MS12073	FirstCNG, LLC	7/27/2013	12/26/2019		\$150,000.00	\$150,000.00	Construct New CNG Station	\$0.00	Yes
MS12074	Arcadia Unified School District	7/5/2013	9/4/2019		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
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
<b>Total: 24</b>									

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
<b>FY 2012-2014 Contracts</b>									
<b>Open Contracts</b>									
ML14012	City of Santa Ana	2/13/2015	10/12/2021		\$244,000.00	\$0.00	EV Charging and 7 H.D. LPG Vehicles	\$244,000.00	No
ML14013	City of Los Angeles, Bureau of Sanit	10/7/2016	2/6/2025		\$400,000.00	\$0.00	Purchase 14 H.D. Nat. Gas Vehicles	\$400,000.00	No
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	6/4/2022	\$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
ML14022	County of Los Angeles Department o	10/2/2015	5/1/2022		\$270,000.00	\$0.00	Purchase 9 H.D. Nat. Gas Vehicles	\$270,000.00	No
ML14023	County of Los Angeles Department o	10/2/2015	9/1/2017		\$230,000.00	\$0.00	Maintenance Fac. Modifications-Westcheste	\$230,000.00	No
ML14024	County of Los Angeles Department o	10/2/2015	9/1/2017		\$230,000.00	\$0.00	Maintenance Fac. Modifications-Baldwin Par	\$230,000.00	No
ML14025	County of Los Angeles Dept of Publi	10/2/2015	7/1/2018		\$300,000.00	\$0.00	Construct New CNG Station in Malibu	\$300,000.00	No
ML14026	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023		\$300,000.00	\$0.00	Construct New CNG Station in Castaic	\$300,000.00	No
ML14027	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023		\$500,000.00	\$0.00	Construct New CNG Station in Canyon Coun	\$500,000.00	No
ML14028	City of Fullerton	9/5/2014	1/4/2022		\$126,950.00	\$0.00	Expansion of Existing CNG Infrastructure	\$126,950.00	No
ML14029	City of Irvine	7/11/2014	6/10/2017		\$90,500.00	\$71,056.78	Bicycle Trail Improvements	\$19,443.22	No
ML14030	County of Los Angeles Internal Servi	1/9/2015	3/8/2018	6/8/2019	\$425,000.00	\$0.00	Bicycle Racks, Outreach & Education	\$425,000.00	No
ML14033	City of Irvine	7/11/2014	2/10/2021		\$60,000.00	\$0.00	Purchase 2 H.D. CNG Vehicles	\$60,000.00	No
ML14049	City of Moreno Valley	7/11/2014	3/10/2021		\$105,000.00	\$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	7/4/2018	\$450,000.00	\$0.00	Installation of Bicycle Trail	\$450,000.00	No
ML14054	City of Torrance	11/14/2014	4/13/2017	7/13/2017	\$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	5/4/2018	\$125,000.00	\$0.00	Bicycle Lanes	\$125,000.00	No
ML14061	City of La Habra	3/11/2016	3/10/2022		\$41,600.00	\$0.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$41,600.00	No
ML14062	City of San Fernando	3/27/2015	5/26/2021		\$387,091.00	\$0.00	Expand Existing CNG Fueling Station	\$387,091.00	No
ML14066	City of South Pasadena	9/12/2014	7/11/2016	7/11/2017	\$142,096.00	\$0.00	Bicycle Trail Improvements	\$142,096.00	No
ML14067	City of Duarte Transit	12/4/2015	1/3/2023		\$60,000.00	\$0.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$60,000.00	No
ML14068	City of South Pasadena	9/12/2014	10/11/2015	1/11/2020	\$10,183.00	\$0.00	Electric Vehicle Charging Infrastructure	\$10,183.00	No
ML14070	City of Rancho Cucamonga	9/3/2016	12/2/2018		\$365,245.00	\$0.00	Bicycle Trail Improvements	\$365,245.00	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
MS14046	Ontario CNG Station Inc.	5/15/2014	5/14/2020	11/14/2021	\$150,000.00	\$135,000.00	Expansion of Existing CNG Infrastructure	\$15,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14053	Upland Unified School District	1/9/2015	7/8/2021		\$175,000.00	\$166,250.00	Expansion of Existing CNG Infrastructure	\$8,750.00	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	4/6/2017	\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14059	Riverside County Transportation Co	9/5/2014	3/4/2018		\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14072	San Bernardino 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	\$217,811.50	Anaheim Resort Circulator Service	\$3,500.50	No
MS14075	Fullerton Joint Union High School Di	7/22/2016	11/21/2023		\$300,000.00	\$0.00	Expansion of Existing CNG Infrastructure/Ma	\$300,000.00	No
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
MS14079	Waste Resources, Inc.	9/14/2016	8/13/2022		\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
MS14080	CR&R Incorporated	6/1/2015	8/31/2021	8/31/2022	\$200,000.00	\$0.00	Expansion of Existing CNG Infrastructure/Ma	\$200,000.00	No
MS14081	CR&R Incorporated	6/1/2015	5/30/2021		\$175,000.00	\$90,000.00	Expansion of Existing CNG Infrastructure/Ma	\$85,000.00	No
MS14082	Grand Central Recycling & Transfer	12/4/2015	3/3/2023		\$150,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$150,000.00	No
MS14083	Hacienda La Puente Unified School	7/10/2015	3/9/2022		\$175,000.00	\$0.00	New Limited Access CNG Station	\$175,000.00	No
MS14084	US Air Conditioning Distributors	5/7/2015	9/6/2021		\$100,000.00	\$90,000.00	Expansion of Existing CNG Infrastructure	\$10,000.00	No
MS14089	Top Shelf Consulting, LLC	2/5/2015	8/4/2016	12/31/2016	\$200,000.00	\$190,000.00	Enhanced Fleet Modernization Program	\$10,000.00	No
MS14090	City of Monterey Park	5/7/2015	5/6/2021		\$225,000.00	\$186,857.60	Expansion of Existing CNG Infrastructure	\$38,142.40	No
MS14092	West Covina Unified School District	9/3/2016	12/2/2022		\$124,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$124,000.00	No

**Total: 53**

**Pending Execution Contracts**

ML14060	County of Los Angeles Internal Servi				\$104,400.00	\$0.00	Electric Vehicle Charging Infrastructure	\$104,400.00	No
ML14069	City of Beaumont				\$200,000.00	\$0.00	Construct New CNG Infrastructure	\$200,000.00	No
MS14035	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Sun Valle	\$75,000.00	No
MS14036	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - La Mirad	\$75,000.00	No
MS14037	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Carson	\$75,000.00	No
MS14038	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Fontana	\$75,000.00	No
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

**Total: 8**

**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
MS14091	Serv-Wel Disposal				\$100,000.00	\$0.00	New Limited-Access CNG Infrastructure	\$100,000.00	No

**Total: 3**

**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
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Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
MS14002	Orange County Transportation Autho	9/6/2013	4/30/2014		\$576,833.00	\$576,833.00	Clean Fuel Transit Service to Orange Count	\$0.00	Yes
MS14003	Orange County Transportation Autho	8/1/2013	4/30/2014	10/30/2014	\$194,235.00	\$184,523.00	Implement Metrolink Service to Angel Stadiu	\$9,712.00	Yes
MS14004	Orange County Transportation Autho	9/24/2013	4/30/2014		\$36,800.00	\$35,485.23	Implement Express Bus Service to Solar De	\$1,314.77	Yes
MS14005	Transit Systems Unlimited, Inc.	4/11/2014	2/28/2016		\$515,200.00	\$511,520.00	Provide Expanded Shuttle Service to Hollyw	\$3,680.00	Yes
MS14007	Orange County Transportation Autho	6/6/2014	4/30/2015		\$208,520.00	\$189,622.94	Implement Special Metrolink Service to Ang	\$18,897.06	Yes
MS14008	Orange County Transportation Autho	8/13/2014	5/31/2015		\$601,187.00	\$601,187.00	Implement Clean Fuel Bus Service to Orang	\$0.00	Yes
MS14009	A-Z Bus Sales, Inc.	1/17/2014	12/31/2014	3/31/2015	\$388,000.00	\$388,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS14039	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Irvine	\$0.00	Yes
MS14040	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Santa An	\$0.00	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
MS14087	Orange County Transportation Autho	8/14/2015	4/30/2016		\$239,645.00	\$195,377.88	Implement Special Metrolink Service to Ang	\$44,267.12	Yes
MS14088	Southern California Regional Rail Au	5/7/2015	9/30/2015		\$79,660.00	\$66,351.44	Special Metrolink Service to Autoclub Speed	\$13,308.56	Yes

**Total: 18**

**Open/Complete Contracts**

ML14031	Riverside County Waste Manageme	6/13/2014	12/12/2020		\$90,000.00	\$90,000.00	Purchase 3 H.D. CNG Vehicles	\$0.00	No
ML14032	City of Rancho Cucamonga	1/9/2015	1/8/2022		\$113,990.00	\$104,350.63	Expansion of Existing CNG Infrac., Bicycle L	\$9,639.37	Yes
ML14034	City of Lake Elsinore	9/5/2014	5/4/2021		\$56,700.00	\$56,700.00	EV Charging Stations	\$0.00	No
ML14064	City of Claremont	7/11/2014	7/10/2020	1/10/2021	\$60,000.00	\$60,000.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$0.00	No
MS14041	USA Waste of California, Inc.	9/4/2015	10/3/2021		\$175,000.00	\$175,000.00	Limited-Access CNG Station, Vehicle Maint.	\$0.00	Yes
MS14042	Grand Central Recycling & Transfer	6/6/2014	9/5/2021		\$150,000.00	\$150,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS14044	TIMCO CNG Fund I, LLC	5/2/2014	11/1/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Santa A	\$0.00	Yes
MS14045	TIMCO CNG Fund I, LLC	6/6/2014	12/5/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Inglewoo	\$0.00	Yes
MS14052	Arcadia Unified School District	6/13/2014	10/12/2020		\$78,000.00	\$78,000.00	Expansion of an Existing CNG Fueling Statio	\$0.00	Yes
MS14074	Midway City Sanitary District	1/9/2015	3/8/2021		\$250,000.00	\$250,000.00	Limited-Access CNG Station & Facility Modif	\$0.00	Yes

**Total: 10**

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
<b>FY 2014-2016 Contracts</b>									
<b>Open Contracts</b>									
ML16005	City of Palm Springs	3/4/2016	10/3/2017		\$40,000.00	\$0.00	Install Bicycle Racks, and Implement Bicycl	\$40,000.00	No
ML16006	City of Cathedral City	4/27/2016	4/26/2022		\$55,000.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle, Bicycle	\$55,000.00	No
ML16007	City of Culver City Transportation De	10/6/2015	4/5/2023		\$246,000.00	\$0.00	Purchase 7 H.D. Nat. Gas Vehicles, EV Cha	\$246,000.00	No
ML16008	City of Pomona	9/20/2016	11/19/2022		\$310,000.00	\$0.00	Purchase 4 Medium-Duty and 9 Heavy-Duty	\$310,000.00	No
ML16009	City of Fountain Valley	10/6/2015	2/5/2018		\$46,100.00	\$0.00	Install EV Charging Infrastructure	\$46,100.00	No
ML16010	City of Fullerton	10/7/2016	4/6/2023		\$370,500.00	\$0.00	Expand Existing CNG Station, EV Charging I	\$370,500.00	No
ML16011	City of Claremont	10/6/2015	6/5/2022		\$90,000.00	\$0.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$90,000.00	No
ML16012	City of Carson	1/15/2016	10/14/2022		\$60,000.00	\$0.00	Purchase 2 Heavy-Duty Nat. Gas Vehicles	\$60,000.00	No
ML16013	City of Monterey Park	12/4/2015	7/3/2022		\$90,000.00	\$0.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$90,000.00	No
ML16015	City of Yorba Linda	3/4/2016	11/3/2017		\$85,000.00	\$0.00	Install Bicycle Lanes	\$85,000.00	No
ML16016	City of Los Angeles, Department of	2/5/2016	12/4/2022		\$630,000.00	\$0.00	Purchase 21 Heavy-Duty Nat. Gas Vehicles	\$630,000.00	No
ML16017	City of Long Beach	2/5/2016	8/4/2023		\$1,445,400.00	\$40,000.00	Purchase 48 Medium-Duty, 16 H.D. Nat. Ga	\$1,405,400.00	No
ML16018	City of Hermosa Beach	10/7/2016	1/6/2023		\$29,520.00	\$0.00	Purchase 2 M.D. Nat. Gas Vehicles, Bicycle	\$29,520.00	No
ML16020	City of Pomona	4/1/2016	2/1/2018		\$440,000.00	\$0.00	Install Road Surface Bicycle Detection Syste	\$440,000.00	No
ML16021	City of Santa Clarita	10/7/2016	6/6/2024		\$49,400.00	\$0.00	Install EV Charging Infrastructure	\$49,400.00	No
ML16023	City of Banning	12/11/2015	12/10/2021		\$30,000.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle	\$30,000.00	No
ML16024	City of Azusa	4/27/2016	2/26/2022		\$30,000.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle	\$30,000.00	No
ML16025	City of South Pasadena	6/22/2016	4/21/2023		\$180,535.00	\$0.00	Purchase 2 H.D. Nat. Gas Vehicles, Expand	\$180,535.00	No
ML16026	City of Downey	5/6/2016	9/5/2017		\$40,000.00	\$0.00	Install EV Charging Infrastructure	\$40,000.00	No
ML16027	City of Whittier	1/8/2016	11/7/2022		\$30,000.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle	\$30,000.00	No
ML16028	City of Azusa	9/9/2016	4/8/2018		\$25,000.00	\$0.00	Enhance Existing Class 1 Bikeway	\$25,000.00	No
ML16031	City of Cathedral City	12/19/2015	2/18/2017		\$25,000.00	\$0.00	Street Sweeping in Coachella Valley	\$25,000.00	No
ML16032	City of Azusa	9/9/2016	4/8/2019		\$474,925.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$474,925.00	No
ML16033	Coachella Valley Association of Gov	4/27/2016	4/26/2018		\$250,000.00	\$0.00	Street Sweeping Operations in Coachella Va	\$250,000.00	No
ML16034	City of Riverside	3/11/2016	10/10/2018		\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16035	City of Wildomar	4/1/2016	11/1/2017		\$500,000.00	\$0.00	Install Bicycle Lanes	\$500,000.00	No
ML16036	City of Brea	3/4/2016	12/3/2018		\$500,000.00	\$0.00	Install a Class 1 Bikeway	\$500,000.00	No
ML16037	City of Rancho Cucamonga	2/5/2016	11/4/2022		\$30,000.00	\$0.00	Purchase One Heavy-Duty Natural Gas Vehi	\$30,000.00	No
ML16038	City of Palm Springs	4/1/2016	7/31/2022		\$230,000.00	\$0.00	Install Bicycle Lanes & Purchase 4 Heavy-D	\$230,000.00	No
ML16041	City of Moreno Valley	9/3/2016	1/21/2021		\$20,000.00	\$0.00	Install EV Charging Infrastructure	\$20,000.00	No
ML16042	City of San Dimas	4/1/2016	12/31/2019		\$55,000.00	\$0.00	Install EV Charging Infrastructure	\$55,000.00	No
ML16045	City of Anaheim	6/22/2016	8/21/2019		\$275,000.00	\$0.00	Maintenance Facility Modifications	\$275,000.00	No
ML16046	City of El Monte	4/1/2016	5/31/2021		\$20,160.00	\$0.00	Install EV Charging Infrastructure	\$20,160.00	No
ML16048	City of Placentia	3/26/2016	5/25/2021		\$90,000.00	\$18,655.00	Install a Bicycle Locker and EV Charging Infr	\$71,345.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16049	City of Buena Park	4/1/2016	11/30/2018		\$429,262.00	\$0.00	Installation of a Class 1 Bikeway	\$429,262.00	No
ML16050	City of Westminster	5/6/2016	7/5/2020		\$115,000.00	\$0.00	Installation of EV Charging Infrastructure	\$115,000.00	No
ML16051	City of South Pasadena	2/12/2016	1/11/2017		\$320,000.00	\$0.00	Implement "Open Streets" Event with Variou	\$320,000.00	No
ML16052	City of Rancho Cucamonga	9/3/2016	11/2/2019		\$315,576.00	\$0.00	Install Two Class 1 Bikeways	\$315,576.00	No
ML16053	City of Claremont	3/11/2016	7/10/2018		\$498,750.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$498,750.00	No
ML16054	City of Yucaipa	3/26/2016	7/26/2018		\$120,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$120,000.00	No
ML16055	City of Ontario	5/6/2016	5/5/2022		\$270,000.00	\$0.00	Purchas Nine Heavy-Duty Natural-Gas Vehi	\$270,000.00	No
ML16056	City of Ontario	3/23/2016	9/22/2020		\$150,000.00	\$0.00	Expansion of an Existing CNG Station	\$150,000.00	No
ML16057	City of Yucaipa	4/27/2016	1/26/2019		\$380,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$380,000.00	No
ML16058	Los Angeles County Department of P	10/7/2016	4/6/2024		\$491,898.00	\$0.00	Purchase 15 H.D. Nat. Gas Vehicles and Ins	\$491,898.00	No
ML16059	City of Burbank	4/1/2016	2/28/2022		\$180,000.00	\$0.00	Purchase 6 H.D. Nat. Gas Vehicles	\$180,000.00	No
ML16060	City of Cudahy	2/5/2016	10/4/2017		\$73,910.00	\$0.00	Implement an "Open Streets" Event	\$73,910.00	No
ML16061	City of Murrieta	4/27/2016	1/26/2020		\$11,642.00	\$0.00	Installation of EV Charging Infrastructure	\$11,642.00	No
ML16062	City of Colton, Electric Department	6/3/2016	7/2/2020		\$25,000.00	\$0.00	Installation of EV Charging Infrastructure	\$25,000.00	No
ML16072	City of Palm Desert	3/4/2016	1/3/2020		\$56,000.00	\$0.00	Installation of EV Charging Infrastructure	\$56,000.00	No
ML16074	City of La Verne	7/22/2016	1/21/2023		\$365,000.00	\$0.00	Install CNG Fueling Station	\$365,000.00	No
ML16078	City of Moreno Valley	5/6/2016	11/5/2017		\$32,800.00	\$0.00	Install Bicycle Infrastructure & Implement Bi	\$32,800.00	No
ML16079	City of Yucaipa	4/1/2016	3/31/2020		\$5,000.00	\$5,000.00	Purchase Electric Lawnmower	\$0.00	No
ML16083	City of El Monte	4/1/2016	4/30/2021		\$57,210.00	\$0.00	Install EV Charging Infrastructure	\$57,210.00	No
MS16001	Los Angeles County MTA	4/1/2016	4/30/2017		\$1,350,000.00	\$0.00	Clean Fuel Transit Service to Dodger Stadiu	\$1,350,000.00	No
MS16004	Mineral LLC	9/4/2015	7/3/2017		\$25,890.00	\$5,100.00	Design, Develop, Host and Maintain MSRC	\$20,790.00	No
MS16030	The Better World Group	12/19/2015	12/31/2017		\$120,000.00	\$49,866.69	Programmic Outreach Services to the MSR	\$70,133.31	No
MS16082	Riverside County Transportation Co	9/3/2016	8/2/2018	6/2/2018	\$590,759.00	\$0.00	Extended Freeway Service Patrols	\$590,759.00	No
MS16084	Transit Systems Unlimited, Inc.	5/6/2016	2/28/2018		\$565,600.00	\$0.00	Implement Special Shuttle Service from Uni	\$565,600.00	No
MS16086	San Bernardino Associated Governm	9/3/2016	10/2/2021		\$800,625.00	\$0.00	Freeway Service Patrols	\$800,625.00	No
MS16087	Burrtec Waste & Recycling Services,	7/8/2016	3/7/2023		\$100,000.00	\$0.00	Construct New Limited-Access CNG Station	\$100,000.00	No
MS16089	Orange County Transportation Autho	7/8/2016	4/30/2017		\$128,500.00	\$0.00	Implement Special Bus Service to Angel Sta	\$128,500.00	No
MS16091	San Bernardino Associated Governm	10/7/2016	11/6/2018		\$1,000,000.00	\$0.00	Traffic Signal Synchronization Projects	\$1,000,000.00	No
MS16093	Orange County Transportation Autho	9/3/2016	3/2/2018		\$1,553,657.00	\$0.00	Implement a Mobile Ticketing System	\$1,553,657.00	No
MS16095	Orange County Transportation Autho	7/22/2016	5/31/2017		\$694,645.00	\$0.00	Implement Special Bus Service to Orange C	\$694,645.00	No
MS16097	Walnut Valley Unified School District	10/7/2016	11/6/2022		\$250,000.00	\$0.00	Expand CNG Station & Modify Maintenance	\$250,000.00	No

**Total: 65**

**Pending Execution Contracts**

ML16014	City of Dana Point				\$153,818.00	\$0.00	Extend an Existing Class 1 Bikeway	\$153,818.00	No
ML16019	City of Los Angeles, Dept of General				\$102,955.00	\$0.00	Install EV Charging Infrastructure	\$102,955.00	No
ML16022	Los Angeles Department of Water an				\$390,000.00	\$0.00	Purchase 13 H.D. Nat. Gas Vehicles	\$390,000.00	No
ML16039	City of Torrance Transit Department				\$32,000.00	\$0.00	Install EV Charging Infrastructure	\$32,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16040	City of Eastvale				\$110,000.00	\$0.00	Install EV Charging Infrastructure	\$110,000.00	No
ML16047	City of Fontana				\$500,000.00	\$0.00	Enhance an Existing Class 1 Bikeway	\$500,000.00	No
ML16064	County of Orange, OC Parks				\$204,073.00	\$0.00	Implement "Open Streets" Events with Vario	\$204,073.00	No
ML16065	City of Temple City				\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16066	City of Long Beach				\$75,050.00	\$0.00	Implement an "Open Streets" Event	\$75,050.00	No
ML16067	City of South El Monte				\$73,329.00	\$0.00	Implement an "Open Streets" Event	\$73,329.00	No
ML16068	Riverside County Dept of Public Heal				\$171,648.00	\$0.00	Implement an "Open Streets" Events with V	\$171,648.00	No
ML16069	City of West Covina				\$54,199.00	\$0.00	Installation of EV Charging Infrastructure	\$54,199.00	No
ML16070	City of Beverly Hills				\$90,000.00	\$0.00	Purchase 3 H.D. Nat. Gas Vehicles	\$90,000.00	No
ML16071	City of Highland				\$264,500.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$264,500.00	No
ML16073	City of Long Beach				\$50,000.00	\$0.00	Implement an "Open Streets" Event	\$50,000.00	No
ML16075	City of San Fernando				\$354,000.00	\$0.00	Install a Class 1 Bikeway	\$354,000.00	No
ML16076	City of San Fernando				\$100,000.00	\$0.00	Install EV Charging Infrastructure	\$100,000.00	No
ML16077	City of Rialto				\$463,216.00	\$0.00	Pedestrian Access Improvements, Bicycle L	\$463,216.00	No
ML16092	San Bernardino Associated Governm				\$250,000.00	\$0.00	Implement a Series of "Open Streets" Event	\$250,000.00	No
MS16029	Orange County Transportation Autho				\$851,883.00	\$0.00	Transportation Control Measure Partnership	\$851,883.00	No
MS16043	LBA Realty Company LLC				\$100,000.00	\$0.00	Install Limited-Access CNG Station	\$100,000.00	No
MS16080	Riverside County Transportation Co				\$1,200,000.00	\$0.00	Passenger Rail Service for Coachella and St	\$1,200,000.00	No
MS16088	Transit Systems Unlimited, Inc.				\$17,000.00	\$0.00	Expansion of Existing CNG Station	\$17,000.00	No
MS16090	Los Angeles County MTA				\$2,500,000.00	\$0.00	Expansion of the Willowbrook/Rosa Parks Tr	\$2,500,000.00	No
MS16094	Riverside County Transportation Co				\$1,909,241.00	\$0.00	MetroLink First Mile/Last Mile Mobility Strate	\$1,909,241.00	No
MS16096	San Bernardino Associated Governm				\$450,000.00	\$0.00	EV Charging Infrastructure	\$450,000.00	No
MS16102	Nasa Services, Inc.				\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
MS16103	Arrow Services, Inc.				\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
MS16104	City of Perris				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16105	Huntington Beach Union High School				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16106	City of Lawndale				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16107	Athens Services				\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
MS16108	VNG 5703 Gage Avenue, LLC				\$150,000.00	\$0.00	Construct Public-Access CNG Station in Bell	\$150,000.00	No
MS16109	County Sanitation Districts of L.A. Co				\$275,000.00	\$0.00	Expansion of an Existing L/CNG Station	\$275,000.00	No
MS16110	City of Riverside				\$300,000.00	\$0.00	Expansion of Existing CNG Station and Mai	\$300,000.00	No
MS16111	VNG 5703 Gage Avenue, LLC				\$150,000.00	\$0.00	Construct Public Access CNG Station in Pla	\$150,000.00	No
MS16112	Orange County Transportation Autho				\$1,470,000.00	\$0.00	Repower Up to 98 Transit Buses	\$1,470,000.00	No
MS16113	Los Angeles County MTA				\$1,875,000.00	\$0.00	Repower Up to 125 Transit Buses	\$1,875,000.00	No
MS16114	City of Norwalk				\$45,000.00	\$0.00	Repower Up to 3 Transit Buses	\$45,000.00	No
MS16115	City of Santa Monica				\$870,000.00	\$0.00	Repower Up to 58 Transit Buses	\$870,000.00	No
MS16116	Riverside Transit Agency				\$10,000.00	\$0.00	Repower One Transit Bus	\$10,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
<b>Total: 41</b>									
<b>Closed Contracts</b>									
MS16002	Orange County Transportation Autho	10/6/2015	5/31/2016		\$722,266.00	\$703,860.99	Clean Fuel Transit Service to Orange Count	\$18,405.01	Yes
MS16003	Special Olympics World Games Los	10/9/2015	12/30/2015		\$380,304.00	\$380,304.00	Low-Emission Transportation Service for Sp	\$0.00	Yes
MS16085	Southern California Regional Rail Au	3/11/2016	9/30/2016		\$78,033.00	\$64,285.44	Special MetroLink Service to Autoclub Spee	\$13,747.56	No
<b>Total: 3</b>									
<b>Open/Complete Contracts</b>									
ML16063	City of Glendora	3/4/2016	4/3/2022		\$30,000.00	\$30,000.00	Purchase One H.D. Nat. Gas Vehicle	\$0.00	No
MS16081	EDCO Disposal Corporation	3/4/2016	10/3/2022		\$150,000.00	\$150,000.00	Expansion of Existing Public Access CNG St	\$0.00	No
<b>Total: 2</b>									

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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### ***FY 2016-2018 Contracts***

#### ***Pending Execution Contracts***

MS16098	Long Beach Transit				\$198,957.00	\$0.00	Provide Special Bus Service to Stub Hub Ce	\$198,957.00	No
MS16099	Foothill Transit				\$50,000.00	\$0.00	Provide Special Bus Service to the Los Ange	\$50,000.00	No
MS16100	Southern California Regional Rail Au				\$80,455.00	\$0.00	Provide Metrolink Service to Autoclub Speed	\$80,455.00	No
MS18001	Los Angeles County MTA				\$807,945.00	\$0.00	Provide Clean Fuel Transit Service to Dodge	\$807,945.00	No
MS18002	Southern California Association of G				\$2,500,000.00	\$0.00	Regional Active Transportation Partnership	\$2,500,000.00	No

**Total: 5**

 [Back to Agenda](#)

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 30

REPORT: California Air Resources Board Monthly Meeting

SYNOPSIS: The California Air Resources Board met on November 17, 2016, in Sacramento, CA. The following is a summary of this meeting.

RECOMMENDED ACTION:  
Receive and File.

Judith Mitchell, Member  
SCAQMD Governing Board

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The Air Resources Board's (ARB or Board) November meeting was held on November 17, 2016 in Sacramento at the California Environmental Protection Agency Headquarters Building. Key items presented are summarized below.

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## **Discussion Items**

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### **1. Public Meeting to Hear a 2016 Legislative Update**

The Board heard highlights of air quality and climate change legislation from the second year of the 2015-2016 California State (State) legislative session from the ARB Legislative Director. The Director reviewed State legislature activity of importance to ARB over the past year such as post-2020 climate action, environmental justice, legislative oversight, and cap-and-trade auction proceeds. In addition, the Director discussed legislature activity regarding the unexpected environmental crises caused by the Volkswagen emission scandal and the Aliso Canyon gas leak. Finally, the Director gave an overview of upcoming State legislative action that ARB will be following.

## **2. Public Meeting to Consider the Proposed Amendments to the Evaporative Emission Requirements for Small Off-Road Engines**

The Board approved amendments to address low compliance of small off-road engines (SORE) with existing evaporative emission standards. SORE are used to power a broad range of lawn and garden equipment as well as generators and small industrial equipment. The amendments will strengthen enforcement provisions, update fuel requirements used for certification to current fuel sold in California, and provide an optional streamlined fuel tank test procedure that will better harmonize with U.S. EPA requirements. In response to stakeholder comments, staff has included 15-day changes to address emissions from fuel caps, fuel lines and canister purging requirements. In the presentation, staff also discussed possible actions to achieve significant additional emission reductions from SORE using currently available technology in order to meet air quality and climate goals. A demonstration of electric lawn and garden equipment was on display at the California Environmental Protection Agency Building to showcase this available clean equipment.

**SCAQMD Staff Comments/Testimony:** Staff provided comments supporting CARB staff proposed amendments to the Small Off-Road Engine (SORE) Regulation to tighten compliance requirements for the evaporative emission standards. Staff indicated that the VOC evaporative emissions from SORE equipment contribute to the ozone air quality problem in the South Coast Air Basin and reducing VOC emissions is still necessary for the region to attain the ozone air quality standards. More importantly, evaporative emissions from gasoline-powered equipment have a direct air toxic exposure impact to the operators of such equipment. Air monitoring measurements from the MATES IV showed that benzene and butadiene (two components of gasoline fuel) account for around 16 percent of the total risk in the Basin. Staff indicated that the proposed amendments should not be delayed to 2018 as requested by the industry given the direct exposure to gasoline evaporative emissions to operators of the equipment.

## **3. Public Meeting to Hear an Informational Item on the AB 32 Scoping Plan Development**

The Board heard an overview of the 2030 Target Scoping Plan objectives, greenhouse gas (GHG) emission sources, GHG modeling results and draft policy scenarios developed to meet the 2030 GHG target. The current 2030 baseline policies do not achieve the 2030 target and leave a gap in reductions needed by 2030. Three scenarios were discussed as potential options to fill this gap. The scenarios included the draft Scoping Plan Policy Scenario (including Cap-and-Trade and reducing GHG at refineries), a no Cap-and-Trade alternative (including measures to increase the stringency of existing regulations and to reduce GHG at major sources), and a Carbon Tax alternative (including GHG reductions at refineries). Staff also discussed the

importance of local government actions in meeting the 2030 GHG goals. This informational update allowed stakeholders and board members to discuss the policies and economic modeling results before staff makes recommendations for measures in the 2030 Target Scoping Plan. Staff plans to release a discussion draft in late November and a proposed Scoping Plan in early January. The Board will hear the proposed Scoping Plan as an informational item in January 2017, with projected consideration of the final Scoping Plan in the spring of 2017.

#### **4. Public Meeting to Update the Board on the Cap-and-Trade Adaptive Management Process**

The Board heard an update on the Cap-and-Trade Adaptive Management Process. Adaptive management establishes methods to identify and track emission increases, if any, leading to the detriment of local air quality that is directly attributable to implementing the Cap-and-Trade Program. The presentation included discussion of the broader effort to focus on actions to achieve additional emission reductions at mobile and industrial sources. This effort will address near-term toxic exposure through joint ARB/district action, develop state measures to reduce criteria pollutants, toxics, and GHG emissions from mobile sources, use the latest science to assess health impacts and prioritize actions, and implement adaptive management to avoid emission increases due to Cap-and-Trade. ARB staff previewed a new visualization tool for presenting emissions of both criteria pollutants and greenhouse gas emissions from facilities included in ARB's Mandatory Reporting Regulation. A full analysis of 80 communities with Cap-and-Trade covered facilities will be included with the Draft Adaptive Management Report to be released in the spring of 2017. This report is scheduled to be brought before the Board in the summer of 2017.

#### **5. Annual Update to the Board on the Cap-and-Trade Program**

The Board heard an update on the status of California's Cap-and-Trade Program, including information on recent auctions, compliance events, the offsets program, linkage with other jurisdictions, and the status of proposed amendments to the program brought to the Board in September. Staff will continue the public process for the 2016 amendments with two 15-day regulatory packages to allow additional public comments. Staff plans to bring the amendments to the Cap-and-Trade Program to the Board for final consideration in spring 2017.

#### **Attachment**

CARB November 17, 2016 Meeting Agenda

**LOCATION:**

California Environmental Protection Agency  
Air Resources Board  
Byron Sher Auditorium, 2<sup>nd</sup> Floor  
1001 I Street  
Sacramento, California 95814

**PUBLIC MEETING AGENDA**

**November 17, 2016**

[Webcast](#)

This facility is accessible by public transit. For transit information, call (916) 321-BUSS, website:

<http://www.sacrt.com>

(This facility is accessible to persons with disabilities.)

**TO SUBMIT WRITTEN COMMENTS ON AN  
AGENDA ITEM IN ADVANCE OF THE MEETING GO  
TO: <http://www.arb.ca.gov/lispub/comm/bclist.php>**

**Thursday  
November 17, 2016  
9:00 a.m.**

**DISCUSSION ITEMS:**

**Note:** The following agenda items may be heard in a different order at the Board meeting.

**Agenda Item #**

**16-10-1: Public Meeting to Hear a 2016 Legislative Update**

*The Board will hear highlights of air quality and climate change legislation from the second year of the 2015-2016 legislative session from the Air Resources Board Legislative Director.*

[More Information](#)

[Staff Presentation](#)

**16-10-2: Public Meeting to Consider the Proposed Amendments to the Evaporative Emission Requirements for Small Off-Road Engines**

*The Board will consider amendments to address non-compliance of small off-road engines (SORE) with existing evaporative emission standards, as well as amendments to streamline the certification process by harmonizing where feasible with federal requirements. SORE are used to power a broad range of lawn and garden equipment as well as generators and small industrial equipment. Staff will also present to the Board a vision for achieving significant additional emission reductions from SORE in order to meet air quality and climate goals. As part of this Board item, a showcase of electric lawn and garden equipment will be displayed inside and adjacent to the California Environmental Protection Agency Building.*

[More Information](#)

[Staff Presentation](#)

**16-10-3: Public Meeting to Hear an Informational Item on the AB 32 Scoping Plan Development**

**Spanish translation will be provided at the Board Meeting for this item, Item 16-10-3.**

*The Board will hear a summary of draft policy scenarios developed as part the 2030 Target Scoping Plan Update. These scenarios will include policies that may be recommended to help the State achieve the 2030 greenhouse gas limit. This is an informational update that will allow stakeholders and board members to discuss the policies and economic modeling results before staff recommends a suite of measures for the 2030 Target Scoping Plan.*

[More Information](#)

[Staff Presentation](#)

**16-10-4: Annual Update to the Board on the Cap-and-Trade Program**

Spanish translation will be provided at the Board Meeting for this item, Item 16-10-4.

*The Board will hear an update on the status of California's Cap-and-Trade Program, including information on recent auctions, compliance events, the offsets program, linkage with other jurisdictions, and the status of currently proposed amendments.*

[More Information](#)

[Staff Presentation](#)

**16-10-5: Public Meeting to Update the Board on the Cap-and-Trade Adaptive Management Process**

Spanish translation will be provided at the Board Meeting for this item, Item 16-10-5.

*The Board will hear an update of the Cap-and-Trade Adaptive Management Process. Adaptive management involves establishing a process to identify and track emissions increases, if any, that are directly attributable to implementing the Cap-and-Trade Program. This process would also identify potential ways to address any increases that might be identified.*

[More Information](#)

[Staff Presentation](#)

**CLOSED SESSION**

*The Board will hold a closed session, as authorized by Government Code section 11126(e), to confer with, and receive advice from, its legal counsel regarding the following pending or potential litigation, and as authorized by Government Code section 11126(a):*

*POET, LLC, et al. v. California Air Resources Board, et al., Superior Court of California (Fresno County), Case No. 15CECG03380.*

*American Fuels and Petrochemical Manufacturers, et al. v. Jane O'Keeffe, et al., U.S. District Court (D. Ore. Portland), Case No. 3:15-CV-00467; Plaintiffs' appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 15-35834.*

*POET, LLC, et al. v. Corey, et al., Superior Court of California (Fresno County), Case No. 09CECG04659; plaintiffs' appeal, California Court of Appeal, Fifth District, Case No. F064045; California Supreme Court, Case No. S213394 [remanded to trial court]; plaintiff's appeal of trial court order discharging peremptory writ of mandate, Court of Appeal, Fifth District, Case No. F073340.*

*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 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.*

*Kimberly-Clark Worldwide, Inc. v. California Air Resources Board, et al.*, Sacramento County Superior Court, Case No. 34-2015-80002246.

*Sowinski v. California Air Resources Board, et al.*, United States District Court for the Central District of California, Case No. 8:15-cv-02123.

*State of West Virginia et al. v. United States Environmental Protection Agency*, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1363.

*Murray Energy Corporation v. United States Environmental Protection Agency*, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1385.

*State of North Dakota, et al. v. United States Environmental Protection Agency*, U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1242.

*Alliance for California Business v. California Air Resources Board, 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 (dismissed), U.S. Court of Appeals, Ninth Circuit, Case No. 13-74019.

*Owner-Operator Independent Drivers Association Inc. et al. v. Corey et al.*, U.S. District Court, (E.D. Cal. Fresno) Case No. 1:13-CV-01998-LJO-SAB (transferred by court to E.D. Cal. Sacramento, Case No. 2:14-CV-00186-MCE-AC), plaintiffs' appeal U.S. Court of Appeals, Ninth Circuit, Case Nos. 15-72101 and 15-16429.

*Jack Cody dba Cody Transport v. California Air Resources Board, et al.*, Sacramento Superior Court, Case No. 34-2015-80002116; plaintiff's appeal, Court of Appeal, Third District, Case No. C083083.

*John R. Lawson Rock & Oil, Inc. et al. v. California Air Resources Board et al.*, Fresno County Superior Court, Case No. 14-CECG01494; ARB's appeal, Court of Appeal, Fifth District, Case No. F074003.

*Transportation Solutions Defense and Education Fund v. California Air Resources Board*, Fresno County Superior Court, Case No. 14CECG01788 (plaintiff's transfer to Sacramento Superior Court, Case No. 34-2014-80001974-CU-WM-GDS).

*Meeks v. California Air Resources Board, et al.* Los Angeles County Superior Court, Case No. BC592558.

*Adam Brothers Farming, Inc. v. California Air Resources Board, et al.*, Santa Barbara County Superior Court, Case No. 15 CV04432.

*In re: Volkswagen "Clean Diesel" MDL*, United States District Court, Northern District of California, Case No. 15-MD-2672-CRB (JSC).

*American Coating Association, Inc. v. State of California and California Air Resources Board*, Sacramento County Superior Court, Case No. 04CS01707.

*Hamilton v. California Air Resources Board, et al.*, U.S. District Court for the Eastern District of California, Case No. 1:15-CV-01942-AWI-SKO.

*Mahan v. California Air Resources Board*, Sacramento County Superior Court, Case No. 34-2016-80002416.

*California Air Resources Board v. Adam Brothers Farming Inc.*, Santa Barbara County Superior Court, Case No. 16CV01758.

*California Air Resources Board v. SSA Containers, Inc.*, Los Angeles County Superior Court, Case No. BC628573 and No. BC628722.

*People v. Southern California Gas Company*, Los Angeles Superior Court, Case No. BC 602973.

*California Air Resources Board v. BP West Coast Products LLC*, Contra Costa County Superior Court, Case No. C12-00567.

*California Air Resources Board v. West Coast Diesel, Inc.*, Fresno County Superior Court, Case No. 15 CECG 03337.

### **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.*

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BOARD MEETING DATE: December 2, 2016

AGENDA NO. 31

**PROPOSAL:** Consideration to Add Rule 444 – Open Burning to Rule Forecast Report

**SYNOPSIS:** At its October 21, 2016 meeting, the Stationary Source Committee considered a request by the City of Newport Beach that Rule 444, which regulates open burning, be placed on the Rule Forecast calendar for 2017. Newport Beach has made this request because it seeks a reconsideration of the beach burning provisions of Rule 444, which the Board adopted in 2013.

**COMMITTEE:** Stationary Source, October 21, 2016, Reviewed

**ACTION:** Whether to include Rule 444 - Open Burning to the Rule Forecast Report for 2017.

Wayne Nastri  
Acting Executive Officer

PF:TG

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### **Background**

The City of Newport Beach first requested that the Board reconsider the beach burning provisions of Rule 444 in a March 9, 2016 letter. Legal staff advised the City that the Board was legally barred from taking up Rule 444 because the rule was not on the AQMD rule calendar for 2016. Staff advised the City that Health & Safety Code section 40923 provides that the Board can consider a rule for adoption or amendment only if the rule is on that year's rule adoption calendar.

At its October 2016 meeting, the Stationary Source Committee, voted to support the addition of Rule 444 to the rule adoption calendar.

The Administrative Committee at its November 18, 2016 meeting, during the review of the December 2, 2016 Board agenda, directed staff to bring this action to the Board for its consideration. The Administrative Committee also requested that staff provide information at the December 2 Board meeting regarding implementation of the beach burning provisions of Rule 444.

The adoption calendar for 2017 is included on the December 2, 2016 agenda for the Board's consideration and includes rules that the Board is expected to consider in 2017, including actions to implement the upcoming 2016 AQMP. Adding Rule 444 to the 2017 Rule Forecast Report will divert resources from other regulatory and programmatic activities that are needed to advance the region's progress towards meeting state and federal ambient air quality standards.

# Consideration to Add Rule 444 to the 2017 Rule Forecast Report

December 2, 2016



# Background

- In 2013, the issue of potential health impacts from beach burning were brought to the SCAQMD's attention
- Newport Beach requested the Coastal Commission to remove fire rings
- Commission staff cited SCAQMD Rule 444 exemption as a justification to deny request
- SCAQMD schedule driven by Coastal Commission's hearing date

# Extensive Rule Development Effort and Search for Alternatives

- Scientific (sampling, monitoring, gradient surveys, and analysis)
- Health (research on wood smoke impacts as compared to other sources of fine particulates)
- Outreach (numerous public, inter-agency, and local gov't meetings)
- Examination of beach burning alternatives
  - Fuel alternatives (natural gas, LPG, lump charcoal)
  - Successful Demonstration Project for LPG portable, mobile, beach fire device

# Potential Community Health Impacts

- Beach Fire Rings
  - Approximately 765 along public coastline
    - Los Angeles County: Dockweiler State Beach (73), Cabrillo Beach (6)
    - Orange County: Bolsa Chica State Beach (178), Huntington City Beach (112); Huntington State Beach (240), Balboa Beach (33), Corona Del Mar State Beach (27), Aliso Beach County Park (7), Doheny State Beach (72), Capistrano Beach Park (4), North Beach (5), San Clemente City Beach (9)
  - High utilization, seasonal basis
  - Some in close proximity to residences
  - Other materials being burned (i.e., trash)



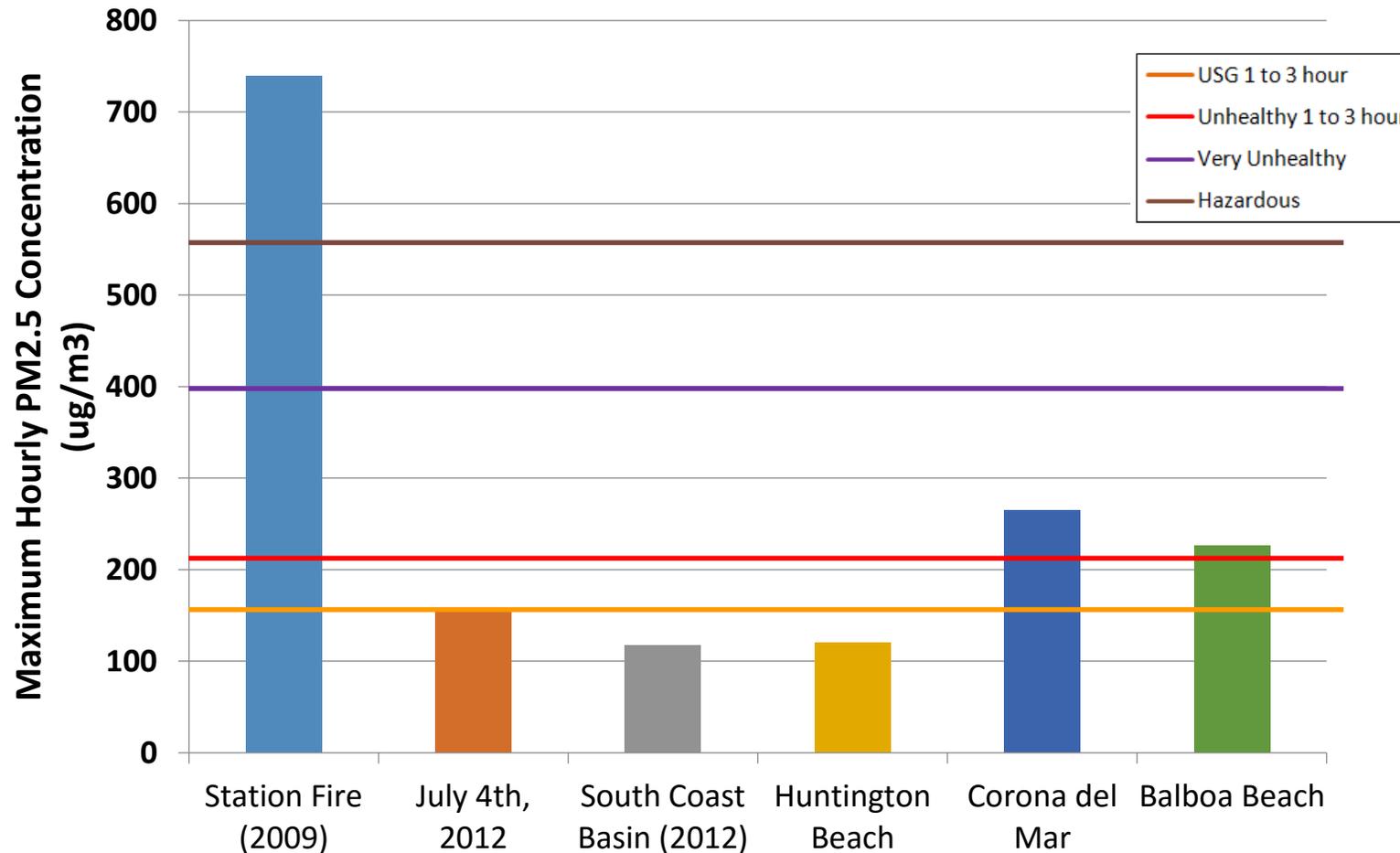
# Potential Community Health Impacts Continued

- Coastal Air Monitoring

- Location of Monitors: Huntington Beach, Balboa, Corona Del Mar
- Fire ring wood smoke impacting beach areas and extending into communities
- 1-hour average PM2.5 concentrations exceeded public health guidance levels (wildfires)



# Maximum Hourly PM2.5 Concentration Comparison



**USG = Unhealthy for Sensitive Groups**

**Unhealthy – “consider canceling public events, based on public health and travel considerations”**

# Scientific Evidence

Particulates primarily in <PM2.5 size range

Fire ring emission rates higher than:

- Three 2013 average diesel trucks
- Second hand smoke from 800 cigarettes
- Large refinery FCCU
- 2012-2013 average of unplanned refinery flaring events
- Huntington Beach power plant

California Environmental Protection Agency  
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January 22, 2009

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# Rule Reflected a Compromise

- Well short of full ban
- Minimum Spacing Distance (only applies within 700 feet of residences)
  - Typical pre-rule spacing 40-60 feet
  - 100 foot spacing reduced ring density and localized concentrations by 50-75%
  - 50 foot spacing allowed if small number of rings on the beach (15 or less)
  - Consideration of fire ring counts within city boundaries
- Buffer zone protected public health to the extent feasible
  - Fire rings outside 700 foot buffer from residences can remain
  - 700 foot buffer based on modeling results showing 98% exposure reduction between 25 and 700 feet distance
- Consideration given for ADA access
- Affected fire rings in five jurisdictions

# Rule Compliance

- Estimated 765 beach fire rings in 12 jurisdictions (five affected)  
(does not cover campgrounds or lakeside fire rings)

- Los Angeles County:

- Cabrillo Beach rings spaced to meet  
ADA requirements

- Orange County:

- 90% of fire rings unaffected
  - Huntington State, Aliso, and San Clemente Beach fire rings moved to be  
in compliance
  - Newport Beach had sufficient area, but decided to keep fire rings in  
similar area



# Rule Compliance (Cont.)

- No net change in the number of overall fire rings in LA and Orange Counties
- Impacts from local nuisance declarations unknown, but local authority strengthened
- Very few coastal no-burn days anticipated (1 in past 6 years, in the winter season)

# Newport Beach

- Two beach areas
- Unique topography
  - Corona Del Mar
- Highly concentrated fire ring spacing, despite broader beach area

- Balboa Beach



# Newport Beach Ordinance

- Met spacing requirements
- Minimized expansion of fire ring foot print by designating some as charcoal only
- Conducted public education (including charcoal give-away)
- Hired enforcement personnel, created signage
- Coastal Commission approved Rule 444 compliant program

- **No new information available since 2013 Amendments**
- **Resource Impacts to Amend Rule 444**
  - Approximate 6 - 9 month rule amendment effort
  - Requires CEQA analysis to analyze impacts from less stringent provisions
  - Up to 3 FTEs for rulemaking duration, including stakeholder outreach and CEQA/socioeconomic analysis
  - Due to controversial nature, additional resource needs:
    - Executive Office
    - Public Affairs
    - Media Office
    - General Counsel

# Action

- Whether to include Rule 444 - Open Burning to the Rule Forecast Report for 2017.

BOARD MEETING DATE: December 2, 2016

AGENDA NO. 32

**PROPOSAL:** Amend BACT Guidelines and Approve Charter for BACT Scientific Review Committee

**SYNOPSIS:** Periodically, staff proposes updates to Parts A and C of the Policy and Procedures of the BACT Guidelines for major and non-major polluting facilities as well as reports new Lowest Achievable Emission Rate and BACT determinations added to Parts B and D for major and non-major polluting facilities. Additionally, for the first time, the BACT Guidelines need to incorporate policy and procedures and determinations for facilities subject to prevention of significant deterioration for greenhouse gases. These actions are to amend the BACT Guidelines to make them consistent with recent changes to SCAQMD rules and regulations as well as state and federal requirements and approve a charter for the BACT Scientific Review Committee.

**COMMITTEE:** Stationary Source, September 16 and November 18, 2016;  
Recommended for Approval

**RECOMMENDED ACTIONS:**

1. Determine that proposed amendments to the BACT Guidelines are exempt from the California Environmental Quality Act;
2. Approve Proposed Amendments to BACT Guidelines; and
3. Approve Proposed Charter for the SCAQMD BACT Scientific Review Committee detailing goals and objectives and membership of the BACT Scientific Review Committee.

Wayne Natri  
Acting Executive Officer

## **Background**

SCAQMD's New Source Review (NSR) regulations require permit applicants to use Best Available Control Technology (BACT) for new sources, relocated sources and modifications to existing sources that may result in an emission increase of any nonattainment air contaminant, any ozone depleting compound (ODC) or ammonia. Regulation XIII–New Source Review also requires the Executive Officer to periodically publish BACT Guidelines that establish the procedures and the BACT requirements for commonly permitted equipment.

The BACT Guidelines are separated into parts for major polluting facilities and non-major polluting facilities. A facility is a major polluting facility if it emits, or has the potential to emit, a criteria air pollutant at a level that equals or exceeds the Regulation XXX Title V emission thresholds. Major polluting facilities that are subject to NSR are required by the Clean Air Act (CAA) to have the Lowest Achievable Emission Rate (LAER). The federal CAA requirement for LAER is implemented through BACT in the SCAQMD. The Part B BACT and LAER determinations for major polluting facilities are only examples of past determinations that help in determining LAER for new permit applications. The California Health & Safety Code (H&SC) Section 40405 defines state BACT similar to federal LAER and requires the application of BACT for all new and modified permitted sources subject to NSR. For non-major polluting facilities, minor source BACT (MSBACT) is as specified in Part D of the BACT Guidelines and determined in accordance with state law at the time an application is deemed complete. In updating Part D with new or more stringent MSBACT, SCAQMD must follow a more rigorous process than for major polluting facilities, including a cost-effectiveness analysis, notification of the public, presentation at a BACT Scientific Review Committee (BACT SRC) meeting and Board approval. SCAQMD also follows the criteria and process specified in H&SC Section 40440.11.

The BACT SRC was established as a standing committee by the Board on September 8, 1995. The BACT SRC was intended to enhance the public participation process with technical review and comments by a focused committee at periodic intervals, prior to the updates of the BACT Guidelines. Staff is proposing the establishment of a Charter that will provide BACT SRC members with an outline of the BACT SRC's mission, goals and objectives, and membership.

## **Proposed Amendments to the BACT Guidelines**

The proposed amendments are to update the Overview, Parts A, B, C and D and to add Parts E and F of the BACT Guidelines to maintain consistency with recent changes to SCAQMD rules and state and federal requirements. The proposed amendments will not result in more stringent requirements than would otherwise occur. Therefore, it was not necessary for staff to evaluate the achieved-in-practice status nor cost effectiveness of the underlying technologies. The BACT SRC and other interested parties were provided with a detailed description of the proposed amended BACT Guidelines at

scheduled public meetings on May 11, 2016, September 27, 2016 and November 9, 2016. The proposed amendments to the Guidelines were posted on the SCAQMD website, and a 30-day public comment period commenced after the first two BACT SRC meetings. Comments by BACT SRC members and the general public along with staff responses are included in Attachment G.

### **Overview**

The Overview consists of five chapters which provide an introduction to the BACT Guidelines and a summary of how BACT is implemented in the SCAQMD. The proposed amendments to the Overview section are primarily administrative in nature and intended to update and clarify content. A summary of the proposed Overview amendments is included in Attachment A with the complete proposed amended Overview included in Attachment B.

### **Part A – Policy and Procedures for Major Polluting Facilities**

Part A describes the policy and procedures for major polluting facilities and explains what BACT is, why it is required, when it is required and how it is determined for major polluting facilities. The proposed amendments to Part A are to maintain consistency with existing and recent changes to SCAQMD rules and state and federal requirements. A summary of the proposed Part A amendments is included in Attachment A with the complete proposed amended Part A included in Attachment B.

### **Part B - LAER/BACT Determinations for Major Polluting Facilities**

Part B consists of three sections: Section I contains listings of LAER/BACT determinations made by SCAQMD; Section II contains listings of LAER/BACT determinations for equipment in other air districts; and Section III contains listings of emerging control technologies. The proposed Part B LAER/BACT determinations of Section I are summarized below with the complete proposed determinations included in Attachment C. The other portions of Section I, and Sections II and III, are not included because they are not being updated.

#### Section I – SCAQMD LAER/BACT Determinations

Four new listings include “Flare, Oil and Gas Production” and three listings under “I.C. Engine-Emergency, Compression Ignition with PM Trap”.

The new “Flare, Oil and Gas Production” listing is for a Flare Industries/Bekaert CEB enclosed ground flare with clean enclosed burner rated at 27 MMBtu per hour. This flare is operated by Linn Operating, Inc., for process gas disposal and is located in the City of Brea. The flare was permitted with NO<sub>x</sub>, VOC and CO emission levels of 15 ppm, 10 ppm and 10 ppm, respectively, all corrected to 3% O<sub>2</sub>, which are below current BACT requirements for this type of flare. The flare commenced operation and was source tested in early 2013 and has operated since that time. The source test showed the flare complied with the NO<sub>x</sub>, VOC and CO emission limits. In addition, a similar 17

MMBtu per hour flare by the same manufacturer has been included in the CARB BACT Clearinghouse with the same emission limits.

The “I.C. Engine-Emergency, Compression Ignition with PM Trap” listings are for three separate engines rated at 374 horsepower (hp), 755 hp and 2220 hp, all equipped with a CARB-verified diesel particulate filter and certified to meet the applicable EPA tier emission standards. These engines were permitted between 2011 and 2014 and have operated since that time.

### **Part C – Policy and Procedures for Non-Major Polluting Facilities**

Part C describes the policy and procedures for non-major polluting facilities and explains what BACT is, why it is required, when it is required and how it is determined for non-major polluting facilities. The proposed updates to Part C are to maintain consistency with recent changes to SCAQMD rules and state and federal requirements. A summary of the proposed Part C amendments is included in Attachment A with the complete proposed amended Part C included in Attachment B.

### **Part D BACT Determinations for Non-Major Polluting Facilities**

Part D consists of BACT determinations for minor sources which are determined in accordance with state law at the time an application is deemed complete. The proposed amendments to Part D are intended to maintain consistency with recent changes to SCAQMD rules and state and federal requirements. The proposed amendments will not result in more stringent requirements than would otherwise occur through rule compliance. Therefore, it was not required for staff to evaluate the achieved-in-practice status nor cost effectiveness of the underlying technologies. The proposed amendments comply with the requirements of California H&SC Section 40440.11. The proposed Part D BACT determinations are summarized below with the complete proposed amended Part D included in Attachment D.

#### ***Boilers***

##### Background

SCAQMD Rules 1146 and 1146.1, addressing emissions of oxides of nitrogen from industrial, institutional, and commercial boilers, steam generators, and process heaters, were most recently approved by the Board on November 1, 2013. These rules apply to most gaseous fuel-fired boilers, steam generators and process heaters rated at greater than 2,000,000 Btu per hour, with the exception of utility boilers, refinery boilers and process heaters rated at greater than 40,000,000 Btu per hour, thermal fluid heaters and sulfur plant reaction boilers.

##### Proposal

Updated NO<sub>x</sub> concentration emissions requirements and additional subcategories are being proposed to the Boiler BACT listing to maintain consistency with the requirements in Rules 1146 and 1146.1.

Staff is recommending incorporating these limits into the BACT Guidelines now that the compliance deadlines have passed and all NO<sub>x</sub> emission limits are now required by these rules. Subcategories for “Propane Fired, > 2 MMBtu/hr and < 20 MMBtu/hr,” “Natural Gas or Propane Fired, ≥ 20 MMBtu/hr and < 75 MMBtu/hr,” “Natural Gas or Propane Fired, ≥ 75 MMBtu/hr,” “Atmospheric Unit, ≥ 2 and ≤ 10 MMBtu/hr,” “Landfill Gas Fired, < 75 MMBtu/hr” and “Digester Gas Fired, < 75 MMBtu/hr” will be added to the listing to maintain consistency with the definitions in Rules 1146 and 1146.1.

### ***Portable Internal Combustion Engines***

#### **Background**

The BACT Guidelines for portable compression ignition I.C. engines reflect the federal emission standards for non-road engines. EPA has established a multiple-tiered system for the emission standards for non-road I.C. engines, which includes portable engines. The Tier 4 emission standards were introduced in 2004 and have been completely phased in for most non-road engines as of January 1, 2015. The current BACT Guidelines list the Tier 2 and Tier 3 requirements for Compression Ignition engines.

#### **Proposal**

Staff is proposing to update the BACT Guidelines for portable I.C. Engines to reflect the requirements of the current Tier 4 standards. CARB adopted the same Tier 4 emission standards and schedule on December 7, 2005. These standards are only applicable to the Compression Ignition subcategory of this listing and will not affect the Spark Ignition engine requirements. However, until further notice, CARB has extended the deadline of the Tier 4 Final requirements, which will now be subject to higher Tier 4 Interim emission levels and are being incorporated into the BACT Guidelines for Portable, Compression-Ignition Engines  $75 \leq \text{HP} < 175$  and  $\text{HP} \geq 750$ . Final Tier 4 requirements will be added to NO<sub>x</sub>, NMHC, “NO<sub>x</sub>+NMHC”, CO and PM BACT emission standards for all the other listed ratings of Compression-Ignition portable I.C. Engines. These updates are all current requirements in 40 CFR Section 10301 Subpart B, 13 CCR Section 2420 et seq. and 17 CCR Section 93116.

Formatting changes in this BACT Listing were done to maintain consistency with the new standards. Most notably, the previous “NMHC+NO<sub>x</sub>” standard has been changed to separate NO<sub>x</sub> and NMHC standards for three of the four HP rating categories.

### ***Stationary, Emergency, Internal Combustion Engines***

#### **Background**

The BACT guidelines for the subcategories “Compression Ignition, Fire Pumps” as well as “Compression Ignition, Other” under the “I.C. Engine, Stationary, Emergency” listing reflect the federal emission standards for non-road engines as well as the CARB ATCM for Stationary Compression Engines 17 CCR Section 93115. As with the portable engines, EPA has established a tiered system for stationary I.C. engine

emission standards, which was adopted into the CARB ATCM. Currently, all I.C. engines rated greater than or equal to 50 HP and less than 750 HP are subject to the Tier 3 emission standards. Engines under these two subcategories that are rated greater than or equal to 750 HP are subject to the Tier 2 standards. In addition, these two subcategories are both subject to the requirements of SCAQMD Rule 1470 that was last amended on May 4, 2012. SCAQMD Rule 1470 sets emission standards for PM, primarily limited to new engines located at or near sensitive receptors, and NO<sub>x</sub> + NMHC and CO that are consistent with EPA and CARB's tiered-emission standards.

The "Spark Ignition" subcategory is subject to the New Source Performance Standards (NSPS) under 40 CFR 60 Subpart JJJJ. The current BACT listing applies to all ratings of spark ignition I.C. engines and limits VOC emissions to 1.5 grams VOC/bhp-hr. Subpart JJJJ requires emergency spark ignition engines rated at greater than or equal to 130 HP to meet an emission standard of 1.0 grams VOC per brake horsepower-hour (/bhp-hr).

#### Proposal

Staff is proposing to add "Compliance with Rule 1470" for NO<sub>x</sub>+NMHC and CO emission standards to the subcategories "Compression Ignition, Fire Pumps," and "Compression Ignition, Other". The current BACT listing already includes this requirement for the PM emission standard. In addition, staff is proposing to remove outdated diesel fuel standards from the SO<sub>x</sub> emission standards for these two subcategories. The current SO<sub>x</sub> standard required by SCAQMD Rule 431.2, which is also currently listed, will remain.

Staff is also proposing to remove the outdated Tier 2 references under the NO<sub>x</sub>+NMHC standard and leave the current Tier 3 standards for "Compression Ignition, Fire Pumps".

For the Spark Ignition subcategory, staff proposes to separate the listing into two ratings:  $50 \leq \text{HP} < 130$  and  $\text{HP} \geq 130$ . Engines rated  $50 \leq \text{HP} < 130$  will be subject to the same existing requirements. Engines rated  $\text{HP} \geq 130$  will be subject to the NSPS standard of 1.0 gram VOC/bhp-hr.

Staff is also proposing to delete previous footnotes for situations that are no longer applicable to the current standards due to compliance dates that have passed or rule changes.

### ***Stationary, Non-Emergency, Non-Electrical Generators, Internal Combustion Engines***

#### Background

Currently, Part D of the BACT Guidelines has a listing for "I.C. Engine, Stationary, Non-Emergency." Due to recent amendments to SCAQMD Rule 1110.2, "Emissions from Gaseous- and Liquid-Fueled Engines," staff has recognized the need for two major

categories under this listing and will be proposing two separate listings, “I.C. Engine, Stationary, Non-Emergency, Non-Electrical Generators,” and “I.C. Engine, Stationary, Non-Emergency, Electrical Generators.” At this time, only the former category will be added to the guidelines since analysis for the latter category is still in progress. The existing listing for “I.C. Engine, Stationary, Non-Emergency,” will remain until both new categories are implemented.

Qualifying engines under “I.C. Engine, Stationary, Non-Emergency” are subject to the requirements of Rule 1110.2. On February 1, 2008, the current NOx, VOC and CO concentration limits were adopted and fully implemented by 2010 for all engines, except landfill and digester gas (biogas) fired units. In 2012, a compliance deadline of January 1, 2016, was established for biogas-fired units to meet the same NOx, VOC and CO limits; however, the recent Rule 1110.2 amendment on December 4, 2015, extended the compliance date until January 1, 2017. In addition, an exemption was provided to biogas units with ongoing technology demonstration projects to extend the compliance date until January 1, 2018.

Proposal

Staff proposes to establish the category of “I.C. Engine, Stationary, Non-Emergency, Non-Electrical Generators.” The category of “I.C. Engine, Stationary, Non-Emergency” will remain unchanged. The new listing will incorporate the existing Rule 1110.2 limits and requirements listed below for all engines rated greater than 50 bhp.

ppmvd NOx @ 15% O <sub>2</sub>	ppmvd VOC <sup>1</sup> @ 15% O <sub>2</sub>	ppmvd CO @ 15% O <sub>2</sub>
11	30	250

<sup>1</sup>measured as carbon

Due to the extension allowed for biogas engines, the existing BACT limits will still apply for NOx, VOC and CO. A footnote will be added to indicate the compliance deadlines for biogas-fueled engines to meet the SCAQMD Rule 1110.2 limits for these contaminants. In addition, the SOx category will continue to require compliance with Rule 431.1.

***Liquid Transfer and Handling***

Background

Part D of the BACT Guidelines for Liquid Transfer and Handling currently lists three different subcategories for Marine, Loading and Tank Truck and Railcar Bulk Loading Classes A, B and C. The listing does not include a subcategory for Gasoline Transfer and Dispensing beyond the Bulk Loading subcategories.

Proposal

Staff is proposing to add an additional subcategory to Part D of the BACT Guidelines for “Gasoline Transfer and Dispensing.” The subcategory will only be subject to VOC

emission requirements, which will specify “Compliance with SCAQMD Rule 461.” These facilities are already subject to the requirements of this rule, last amended on April 6, 2012. This proposal will incorporate the existing rule requirements into the BACT Guidelines for minor sources.

### ***Non-Refinery Process Heater***

#### Background

SCAQMD Rules 1146 and 1146.1, both titled “Emissions of Oxides of Nitrogen from (Small) Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters,” were most recently approved by the Board on November 1, 2013. These rules apply to most gaseous fuel-fired boilers, steam generators and process heaters rated at greater than 2,000,000 Btu per hour, with the exception of utility boilers, refinery boilers and process heaters rated at greater than 40,000,000 Btu per hour, thermal fluid heaters and sulfur plant reaction boilers.

#### Proposal

To maintain consistency with the current requirements of Rules 1146 and 1146.1, staff is proposing to specify in the BACT listing for Process Heater–Non-Refinery under NO<sub>x</sub> “Compliance with SCAQMD Rules 1146 and 1146.1.” This proposal will incorporate the existing rule requirements into the BACT Guidelines for minor sources.

### ***Oil and Gas Production***

#### Background

SCAQMD Rules 1148, Thermally Enhanced Oil Recovery Wells, and 1148.1, Oil and Gas Production Wells, apply to oil and gas production operations and specifically Rule 1148.1 was recently amended and approved by the Board on September 4, 2015.

#### Proposal

To maintain consistency with the current requirements of Rules 1148 and 1148.1, staff is proposing to specify in the BACT listing for Oil and Gas Production under VOC “Compliance with SCAQMD Rules 1148 and 1148.1.” This proposal will incorporate the existing rule requirements into the BACT Guidelines for minor sources.

### **Proposed New Part E–Policy and Procedures for Facilities Subject to Prevention of Significant Deterioration for Greenhouse Gases**

#### Background

For the first time, GHG emissions from the largest stationary sources are covered by the Prevention of Significant Deterioration (PSD) and Title V Operating Permit Programs beginning January 2, 2011. These permitting programs, required under the Clean Air Act, are proven tools for protecting air quality and the same tools will be used to reduce GHG emissions. The SCAQMD is currently required to implement the GHG BACT requirements through its permitting program.

40 CFR 52.21, amended in both May 2010 and October 2015, established an approach to permit GHG emissions under PSD and Title V. Through this rule, permitting focused on the major industrial sources, which emit nearly 70 percent of the greenhouse gas pollution from stationary sources. At this time, lesser-emitting sources are not subject to these requirements.

The requirements of this rule apply only to GHG as defined by EPA as a total group of six GHG which are: carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF<sub>6</sub>). All other attainment air contaminants, as defined in SCAQMD Rule 1702 subdivision (a), shall be regulated for the purpose of PSD.

#### Proposal

To maintain consistency with current federal GHG permitting requirements, staff is proposing to add Part E to the BACT Guidelines. This part summarizes the requirements of GHG BACT regulations according to EPA, describes the Top-Down Process, explains how to calculate GHG emissions and explains PSD Applicability for GHGs for new and modified sources. 40 CFR 52.21 was recently revised to address the U.S. Supreme Court decision in *Utility Air Regulatory Group v. Environmental Protection Agency*, 134 S. Ct. 2427 (2014)<sup>19</sup>, regarding the applicability of PSD and GHG BACT. The guidance in this chapter is applicable to the EPA requirements in place as of the date of these guidelines, as well as SCAQMD Rule 1714, which incorporates most of 40 CFR 52.21 by reference. Proposed Part E is included in Attachment B.

### **Proposed New Part F–BACT Determinations for Facilities Subject to Prevention of Significant Deterioration for Greenhouse Gases**

#### Background

Similar to Part B, proposed new Part F will consist of Section I with listings of GHG BACT determinations made by SCAQMD, Section II with listings of GHG BACT determinations for equipment in other air districts, and Section III with listings of emerging GHG BACT control technologies.

#### Proposal

Staff is proposing to add Part F and bring new GHG BACT determinations for Board approval as they become available for inclusion into Part F. At this time, there are no GHG BACT listings to be proposed; however, staff is in the process of identifying potential GHG BACT for future listings. Proposed Part F is included in Attachment B.

### **Proposed Amendments to List of Abbreviations and Index of Equipment Categories**

Staff is proposing to update the List of Abbreviations by the addition of the following: California Air Resources Board (CARB), Carbon Capture and Sequestration (CCS),

Carbon Dioxide (CO<sub>2</sub>), Carbon Dioxide Equivalent (CO<sub>2e</sub>), Greenhouse Gas (GHG), Global Warming Potential (GWP), Maximum Individual Cancer Risk (MICR), Lead (Pb), Particulate Matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), Prevention of Significant Deterioration (PSD), Potential to Emit (PTE), RECLAIM Trading Credit (RTC), South Coast Air Quality Management District (SCAQMD replaced AQMD) and Best Available Control Technology for Toxics (T-BACT).

To be consistent with the function of the Index of Equipment Categories, staff is proposing to rename it to List of Equipment Categories. The proposed amendments to this list are administrative in nature and consist of having the same equipment categories as those in Parts B, D and F and included in Attachment B.

#### **Proposed Charter for BACT Scientific Review Committee**

Staff is proposing the establishment of a Charter for the BACT SRC, which details the BACT SRC's goals and objective, the composition and selection of the BACT SRC membership, the desired qualifications of its membership and the operational guidelines for the BACT SRC. The proposed Charter for the BACT SRC is included in Attachment E.

#### **Presentation to BACT Scientific Review Committee**

The proposed amendments to the BACT Guidelines were presented to the BACT SRC at the publicly noticed May 11, 2016 meeting. A 30-day period was provided to the BACT SRC and general public to review and submit comments. At the September 16, 2016 Stationary Source Committee, staff was directed to hold a follow-up BACT SRC meeting; a meeting was held on September 27, 2016 to address additional comments on the Proposed Amended BACT Guidelines. At the request of BACT SRC members and the public an additional 30-day comment period was provided to review and submit comments. The proposed amended BACT Guidelines along with staff response to comments was, for the third time, presented to the BACT SRC at a publicly noticed meeting on November 9, 2016. Comments by BACT SRC members and the general public along with staff responses are included in Attachment G.

#### **California Environmental Quality Act (CEQA)**

SCAQMD staff has reviewed the proposed amendments to the BACT Guidelines, pursuant to CEQA Guidelines, pursuant to CEQA Guidelines Section 15002(k)(1) and Section 15061, and determined them to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). Since the proposed amendments are only updating the BACT Guidelines with current, already existing requirements, it can be seen with certainty that the proposed project has no potential to adversely impact air quality or any other environmental topic area.

### **Socioeconomic Analysis**

The proposed amendments of the BACT Guidelines are to maintain consistency with recent changes to SCAQMD rules and state and federal requirements. These proposed amendments are administrative in nature and will therefore not result in more stringent requirements than would otherwise occur and would not result in any adverse socioeconomic impacts.

### **Benefits to SCAQMD**

Emission reductions realized through permitted sources that apply the latest BACT will benefit air quality, achieve emissions reductions needed to attain air quality standards and improve public health in the SCAQMD's jurisdiction. In addition, the successful implementation of BACT for permitted stationary sources will contribute towards achieving the air quality objectives of SCAQMD's Air Quality Management Plan.

### **Resource Impacts**

Existing SCAQMD resources will be sufficient to implement the proposed changes to the BACT Guidelines.

### **Recommendation**

This Board letter serves as staff's report to the Board on proposed amendments to the BACT Guidelines. The updated BACT Guidelines with these amendments are scheduled to be made available at SCAQMD's website at <http://www.aqmd.gov/home/permits/bact>, pending Board approval.

These actions are to determine that proposed amendments to the BACT Guidelines are exempt from the California Environmental Quality Act, approve proposed amendments to the BACT Guidelines, and approve the proposed Charter for the SCAQMD BACT Scientific Review Committee.

### **Attachments**

- A. Summary of Proposed Amendments to BACT Guidelines
- B. Proposed Amended BACT Guidelines Overview, Parts A, C, E and F
- C. Proposed Amended BACT Guidelines Part B
- D. Proposed Amended BACT Guidelines Part D
- E. Proposed Charter for BACT Scientific Review Committee
- F. Notice of Exemption from the California Environmental Quality Act
- G. Comments and Responses
- H. Board Meeting Presentation

## ATTACHMENT A

### SUMMARY OF PROPOSED AMENDMENTS TO BACT GUIDELINES

The following summarizes the key proposed amendments to the BACT Guidelines:

#### Overview

##### Chapter 1 - Introduction

- Toxic BACT (T-BACT) reference
- Description for addition of Parts E and F to address Prevention of Significant Deterioration (PSD) requirements for GHG emissions established by U.S. EPA
- BACT Docket information updated
- Hyperlinks added for Web pages and email

##### Chapter 2 – Applicability Determination

- Added PM<sub>2.5</sub> and updated SO<sub>x</sub> threshold levels on Table 1
- Clarification of GHG BACT emission threshold applicability in Table 1
- Updated map of SCAQMD, Figure 1

##### Chapter 3 – When is BACT Required?

- Carbon monoxide attainment and BACT requirement
- Added reference to Lead Rules 1420.1 and 1420.2
- Chlorobromomethane added to Table 2 – Class I Substances (ODCs)
- Added PM<sub>2.5</sub> to Table 3

##### Chapter 4 – What is BACT?

- PSD Rules BACT applicability

##### Chapter 5 – Review of Staff BACT Determinations

- Background, goals and objectives and membership of the Scientific Review Committee

#### Part A

##### Chapter 1 – How is LAER Determined for Major Polluting Facilities?

- Added section on Federal PM<sub>2.5</sub> New Source Review and SCAQMD Rule 1325
- Super “Clean” Materials clarified as Super “Compliant” Materials to be consistent with SCAQMD Rule 109 definition
- Added section on Other Considerations for Pollution Prevention, Monitoring and Testing and Capture Efficiency
- Clean Fuels Policy clarified as also including electricity as a clean fuel, as well as zero and near-zero emission technologies

## Part B

The following LAER/BACT listings will be included in Part B:

- I.C Engines (3), Emergency, Compression Ignition with Diesel Particulate Filter
  - 374 BHP
  - 755 BHP
  - 2220 BHP
- Flare, Oil and Gas Operations

## Part C

Chapter 1 – How is MSBACT Determined for Minor Polluting Facilities?

- Clarified that dates on Part D Determinations do not exempt equipment from complying with new requirements or limits implemented after that date
- Updated Maximum Cost Effectiveness Values
- Added section on BACT Top-Down Cost Methodology
- Clean Fuels Policy clarified as also including Industrial Electrification
- Updated Figure 2 flowchart: The Ongoing BACT Update Process

Chapter 2 – How to Use Part D of the MS BACT Guidelines?

- Super “Clean” Materials clarified as Super “Compliant” Materials to be consistent with definition
- Added section on Other Considerations for Pollution Prevention, Monitoring and Testing and Capture Efficiency

## Part D

All of the following Part D listings are proposed to be updated to the current SCAQMD and state and federal requirements. In certain cases, new listings, categories and subcategories were created for consistency with the requirements.

- Boiler
- I.C. Engine, Portable
- I.C. Engine, Stationary Emergency
- I.C. Engine, Stationary, Non-Emergency, Non-Electrical Generators
- Liquid Transfer and Handling
- Oil and Gas Production
- Process Heater - Non-Refinery

## Part E

Part E was added to address the policies and procedures set forth in EPA's GHG Program under 40 CFR 52.21, which is incorporated by reference under SCAQMD Rule 1714.

The following sections were added under Part E:

- Background
- Permitting Guidance for GHG
- Federal PSD Applicability for GHG
- SCAQMD PSD Applicability for GHG
- Top-Down BACT Process
- GHG Control Measures White Papers

## Part F

This section is reserved for future GHG BACT listings. There are currently no proposed GHG listings.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

**Best Available Control Technology Guidelines**

**OVERVIEW**

**Part A: Policy and Procedures for Major Polluting Facilities**

**Part B: LAER/BACT Determinations for Major Polluting Facilities**

**Part C: Policy and Procedures for Non-Major Polluting Facilities**

**Part D: BACT Guidelines for Non-Major Polluting Facilities**

**Part E: Policy and Procedures for Facilities Subject to Prevention of Significant Deterioration for Greenhouse Gases**

**Part F: BACT Determinations for Facilities Subject to Prevention of Significant Deterioration for Greenhouse Gases**

August 17, 2000 (Revised June 6, 2003; December 5, 2003; July 9, 2004; July 14, 2006; ~~October 7, 2016~~ December 2, 2016)

**Deputy Executive Officer**  
**Science and Technology Advancement**  
Matt M. Miyasato  
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# OVERVIEW

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## Chapter 1 - Introduction

The South Coast Air Quality Management District (SCAQMD) Regulation XIII – New Source Review (NSR) and Regulation XX – RECLAIM, require applicants to use Best Available Control Technology (BACT) for new sources, relocated sources, and for modifications to existing sources that may result in an emission increase of any nonattainment air contaminant, any ozone depleting compound (ODC), or ammonia. Regulation XIII requires the Executive Officer to periodically publish BACT Guidelines that establish the procedures and the BACT requirements for commonly permitted equipment. SCAQMD Regulation XIV – Toxics and Other Non-Criteria Pollutants, requires applicants to use Best Available Control Technology for Toxics (T-BACT) for new, relocated or modified permit units that result in a cumulative increase in Maximum Individual Cancer Risk (MICR) of greater than one in a million ( $1.0 \times 10^{-6}$ ) at any receptor location. Additionally, Regulation XVII – Prevention of Significant Deterioration (PSD) also sets forth BACT requirements for new sources, relocated sources and modifications to existing sources that emit attainment air contaminants. Regulation XIII requires the Executive Officer to periodically publish BACT Guidelines that establish the procedures and the BACT requirements for commonly permitted equipment. PSD BACT is incorporated into these BACT Guidelines. As of the publication date of these guidelines, there is currently not a requirement for SCAQMD to publish T-BACT guidelines and T-BACT must be established during the permitting process. The BACT Guidelines were first published in May 1983, and later revised in October 1988.

Historically, the BACT Guidelines were first published in May 1983, and later revised in October 1988. The Guidelines consisted of two parts: Part A – Policy and Procedures, and Part B – BACT Determinations. Part A provided an overview and general guidance while Part B contained specific BACT information by source category and pollutant. Since the October 1988 revision, Part A was amended once in 1995, and Part B was updated with six LAER determination times between 1997 and 1998.

On December 11, 1998, the Governing Board approved a new format for listing BACT determinations in Part B of the Guidelines. While the previous Part B of the BACT Guidelines specified BACT requirements and set out source category determinations which could be interpreted as definitive, the new format simply provides listings of recent BACT determinations by SCAQMD permitting staff and others as well as information on new and emerging technologies. Part B of the SCAQMD BACT Guidelines now follows the same outline as the permit listings in the California Air Resources Board State BACT Clearinghouse Database, which is managed under the direction of the California Air Pollution Control Officers Association's (CAPCOA) Engineering Managers Committee. –and coordinates the submittal of– In addition, BACT determinations made by the districts SCAQMD are submitted to the U.S. Environmental Protection Agency (USEPA) RACT/BACT/LAER Clearinghouse by ARB staff, California Air Pollution Control Officer Association (CAPCOA) BACT Clearinghouse and the United States Environmental Protection Agency (USEPA) RACT/BACT/LAER Clearinghouse. Further information on the new format of the Guidelines, including reasons for the change in direction, may be found in Board Letters presented at the October 1998

Board Meeting, Agenda No. 41, and the December 1998 Board Meeting, Agenda No. 28.

The public participation process ~~was also enhanced to include~~ technical review and comments by a focused BACT Scientific Review Committee (BACT SRC) at periodic intervals, prior to the updates of the SCAQMD BACT Guidelines. ~~At the same time,~~ ~~the~~ Board established a 30-day notice period for the BACT SRC and interested persons to review and comment on SCAQMD BACT determinations that result in BACT requirements that are more stringent than previously imposed BACT.

As a result of amendments ~~being proposed to SCAQMD's New Source Review (NSR)~~ regulations in September 2000, the BACT Guidelines ~~was~~ ~~will~~ be separated into two sections: one for major polluting facilities and another for non-major (minor) polluting facilities. (See Chapter 2 in the Overview for how to determine if a facility is major or minor).

The BACT Guidelines for major polluting facilities include:

- Part A: Policy and Procedures for Major Polluting facilities, ~~;~~ and
- Part B: LAER/BACT Determinations for Major Polluting Facilities.

The BACT Guidelines for non-major polluting facilities include:

- Part C: Policy and Procedures for Non-Major Polluting Facilities, ~~;~~ and
- Part D: BACT Guidelines for Non-Major Polluting Facilities.

Both the format of the guidelines and the process for determining BACT are significantly different between major and non-major polluting facilities. Major polluting facilities that are subject to NSR are required by the Clean Air Act to have the Lowest Achievable Emission Rate (LAER). LAER is determined at the time the permit is issued, with little regard for cost, and pursuant to USEPA's LAER policy as to what is achieved in practice. The Part B BACT and LAER determinations for major polluting facilities are only examples of past determinations that help in determining LAER for new permit applications.

For non-major polluting facilities, BACT will be determined in accordance with state law at the time an application is deemed complete unless a more stringent rule requirement becomes applicable prior to permit issuance. For the most part, it will be as specified in Part D of the BACT Guidelines. Changes to Part D for minor source BACT (MSBACT) to make them more stringent will be subject to public review and SCAQMD Board approval, in view of cost for considerations of cost.

For the 2016 amendment to the Guidelines, additional parts have been added to address PSD requirements for greenhouse gas (GHG) emissions established by U.S. EPA in 40 CFR 52.21 in 2011. The requirements are incorporated by reference in SCAQMD Rule 1714. The BACT Guidelines for GHG requirements include:

- Part E: Policy and Procedures for Facilities Subject to Prevention of Significant Deterioration for Greenhouse Gases; and
- Part F: BACT Determinations for Facilities Subject to Prevention of Significant Deterioration for Greenhouse Gases.

In order to distinguish between BACT for ~~major sources and BACT for minor~~ various sources, this document will use the following nomenclature for BACT:

LAER for BACT at major polluting facilities

MSBACT for BACT at non-major polluting facilities

PSD/CHE BACT for BACT at facilities subject to PSD/CHE BACT requirements for criteria pollutants

Written comments about the BACT Guidelines are welcome at any time and will be evaluated by SCAQMD staff and included in the BACT Docket at the SCAQMD library. These comments should be addressed to:

South Coast Air Quality Management District  
BACT Docket  
Science and Technology Advancement  
21865 Copley Dr.  
Diamond Bar, CA 91765-0934

Comments may also be submitted via email to BACTTeam@aqmd.gov, and should include BACT Docket in the subject line.

The BACT Guidelines are available without charge from SCAQMD's web site at [www.aqmd.gov/home/permits/bact](http://www.aqmd.gov/home/permits/bact). A hardcopy of tThe BACT Guidelines may be obtained for a fee by submitting a request to contacting Subscription Services at [www.aqmd.gov/contact/subscription-services](http://www.aqmd.gov/contact/subscription-services) or at the above address or by calling (909) 396-3720. Revisions to the guidelines Guidelines will be mailed to all persons that have purchased annual updates to the BACT Guidelines. ~~The BACT Guidelines are also available without charge from SCAQMD's Internet web site at <http://www.aqmd.gov/home/permits/bact> <http://www.aqmd.gov/bact>.~~

## Chapter 2 – Applicability Determination

This chapter explains how to determine whether a facility is a major or minor polluting facility, and how a facility can become a minor polluting facility.

### MAJOR POLLUTING FACILITY EMISSION THRESHOLDS

A facility is a major polluting facility (or a major stationary source as it is called in the federal Clean Air Act [CAA]) if it emits, or has the potential to emit (PTE), a criteria air pollutant at a level that equals or exceeds emission thresholds ~~specified given~~ in the CAA<sup>1</sup> based on the attainment or nonattainment status. Table 1 ~~presents~~ shows those emission thresholds for each criteria air pollutant for each air basin in SCAQMD. The map in Figure 1 shows the location of the three air basins in SCAQMD. If a threshold for any one criteria pollutant is equaled or exceeded, the facility is a major polluting facility, and will be subject to LAER for all pollutants subject to NSR. ~~Currently Although Table 1 is part of determining GHG BACT applicability, Table 1 does not include emission thresholds that trigger GHG BACT for SCAQMD Rule 1714 and 40 CFR 52.21. Subpart E of the BACT Guidelines should be referenced for a detailed explanation of how GHG BACT emission thresholds are determined.~~

A facility includes all sources located within contiguous properties owned or operated by the same person, or persons under common control. Contiguous means in actual contact or separated only by a public roadway or other public right-of-way. However, on-shore crude oil and gas production facilities under the same ownership or use entitlement must be included with offshore crude oil and gas production facilities located in Southern California Coastal or Outer Continental Shelf waters.

The following mobile source emissions are also considered as part of the facility<sup>2</sup>:

1. Emissions from in-plant vehicles; and
2. All emissions from ships during the loading or unloading of cargo and while at berth where the cargo is loaded or unloaded; and
3. Non-propulsion ship emissions within Coastal Waters under SCAQMD jurisdiction.

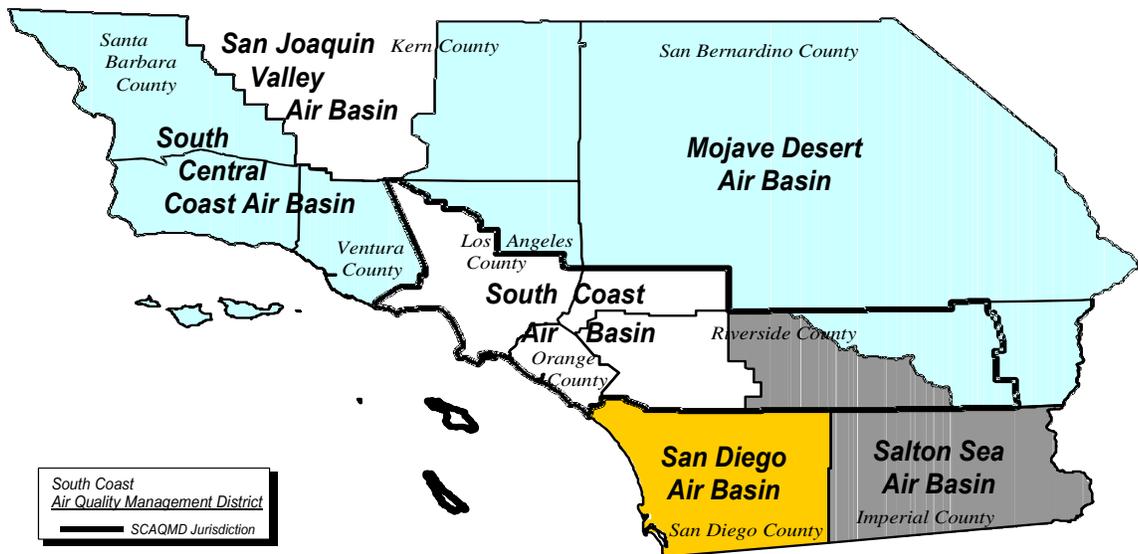
<sup>1</sup> The major source emission thresholds are higher for air basins that comply with the national ambient air quality standard and lower depending on how far an air basin is from compliance with the standard for a pollutant. The lowest thresholds apply to extreme non-attainment air basins, the only ~~example ones of which are~~ the South Coast Air Basin and San Joaquin Valley Air Basin for ozone (VOC and NOx).

<sup>2</sup> In accordance with Rule 1306(g).

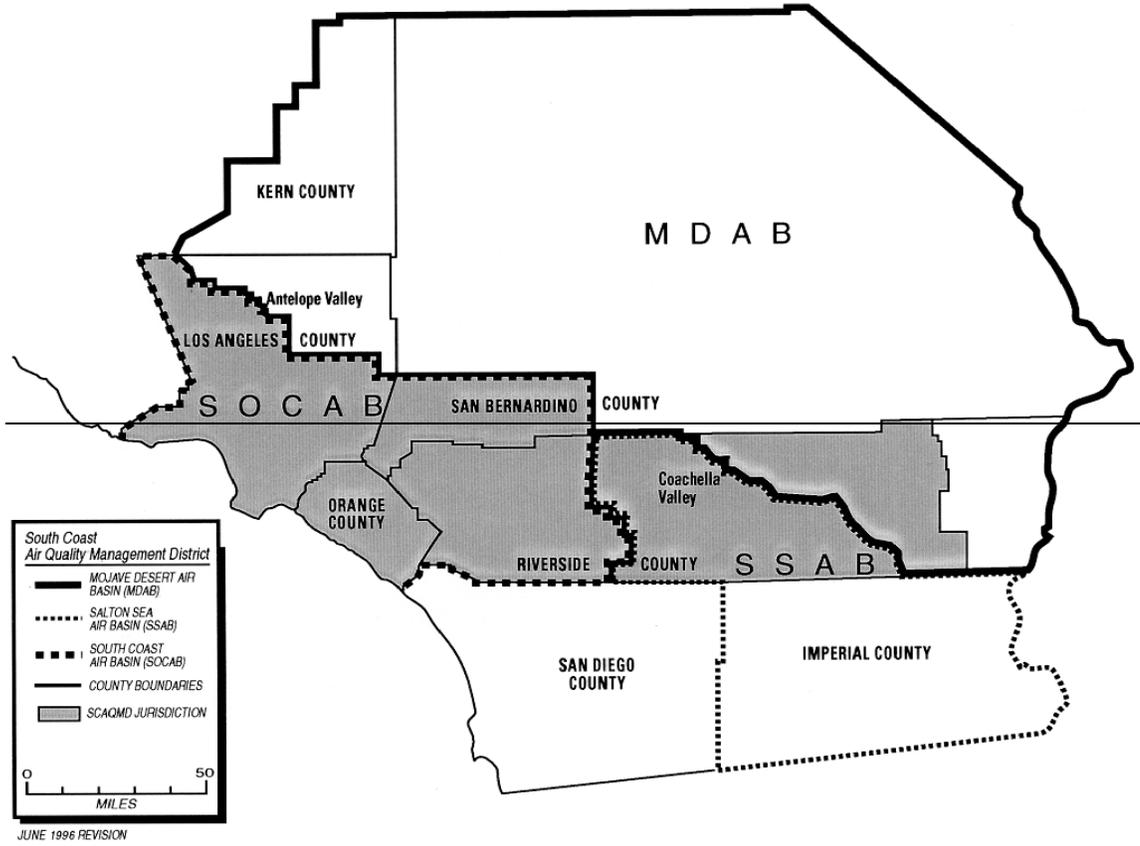
**Table 1**  
**Actual or Potential Emission Threshold Levels (Tons per Year)**  
**for Major Polluting Facilities**

Pollutant	South Coast Air Basin	Riverside County Portion of Salton Sea Air Basin	Riverside County Portion of Mojave Desert Air Basin
VOC	10	25	100
NO <sub>x</sub>	10	25	100
<sup>3</sup> SO <sub>x</sub>	<del>70</del> 100	<del>70</del> 100	100
CO	50	100	100
PM <sub>10</sub>	70	70	100
PM <sub>2.5</sub>	<del>70</del> 100	---	---

**Figure 1: Map of SCAQMD**



<sup>3</sup> The threshold for SO<sub>x</sub>, as a precursor for PM, is 70 tons per year for serious PM<sub>10</sub> areas, which the SCAB previously was, and 70 tons per year for serious PM<sub>2.5</sub> areas, which the SCAB currently is. Rule 1302 previously ~~currently~~ specified 100 tons per year, which ~~was in error, and was being changed~~ is being corrected at the November 2016 Board Meeting.



## POTENTIAL TO EMIT

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Potential to emit (PTE) is based on permit conditions that limit emissions or throughput. If there are no such permit conditions, PTE is based on:

- the maximum rated capacity; and
- the maximum daily hours of operation; and
- physical characteristics of the materials processed.

The PTE must include fugitive emissions associated with the source. RECLAIM emission allocations are not considered emission limits because RECLAIM facilities may purchase RTCs and increase their emissions without modifying their permit. For PSD purposes, as well as Rule 1325 for PM<sub>2.5</sub>, which incorporates federal requirements, fugitive emissions are included only for major source categories specifically identified in 40 CFR 52.21.

## LIMITING POTENTIAL TO EMIT

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A facility's PTE can be capped by an enforceable permit condition that limits emissions. This condition will likely involve monitoring, recordkeeping and reporting to ensure that emissions remain below the permit limit.

## Chapter 3 - When is BACT Required?

This chapter explains when BACT is required by identifying the air pollutants subject to BACT, the permit actions that trigger BACT review, and the calculation procedures to determine emission increases.

### POLLUTANTS SUBJECT TO NSR, PSD AND BACT

The SCAQMD's New Source Review (NSR) programs include *Regulation XIII - New Source Review* and *Rule 2005 - New Source Review for RECLAIM*. Rule 2005 applies only to NO<sub>x</sub> and SO<sub>x</sub> emissions from RECLAIM facilities, while Regulation XIII applies to other non-attainment air pollutants from RECLAIM facilities, all non-attainment air pollutants from all other facilities, and ammonia and ozone-depleting compound (ODC) emissions from all facilities. ODCs are defined as Class I substances listed in 40 CFR, Part 82, Appendix A, Subpart A, and are listed in Table 2. Rule 1325 specifically applies to PM<sub>2.5</sub>.

Although the SCAQMD is in attainment with the ambient air quality standards for SO<sub>2</sub> and NO<sub>2</sub>, NO<sub>x</sub> is a precursor to ozone, and both SO<sub>x</sub> and NO<sub>x</sub> are precursors to PM<sub>10</sub> and PM<sub>2.5</sub>, which are non-attainment air pollutants. Therefore, SO<sub>x</sub> and NO<sub>x</sub> are treated as non-attainment air pollutants as well, ~~including ozone~~. The net result is that VOC, NO<sub>x</sub>, SO<sub>x</sub>, ~~and PM<sub>10</sub> and PM<sub>2.5</sub>~~ are subject to NSR in all of SCAQMD. ~~, while CO is only subject to NSR in the South Coast Air Basin (SOCAB).~~

~~The South Coast Air Basin has historically been had a persistent designated nonattainment for CO problem. However, there has been considerable improvement in CO air quality in the Basin from 1976 to 2005. In 2001, the Basin met both the federal and state 8-hour CO standards for the first time at all monitoring stations. The 2003 AQMP revision to the CO plan served a dual purpose; it replaced the 1997 attainment demonstration that lapsed at the end of 2000, and it provided the basis for a CO maintenance plan in the future. The Basin was designated as attainment for CO in 2007. Therefore, CO is no longer a nonattainment pollutant, since the state standard for CO is the same as the federal. Therefore, CO is in attainment with state and federal ambient air quality standards.~~

~~The SCAQMD's Regulation XVII – Prevention of Significant Deterioration sets forth BACT requirements for stationary sources that emit attainment air contaminants. The BACT requirement applies to any net emission increase of a criteria pollutant from a permit unit at any source. Similar to the Regulation XIII NSR requirements, precursors to attainment air contaminants, would also be treated as attainment air contaminants, unless they also qualify as a nonattainment air contaminant, or nonattainment precursor as well. As explained in the SCAQMD Staff Report for Regulation XVII dated September 28, 1998 for the October 7, 1988 Board meeting, the PSD BACT requirement is applicable to all permit units regardless if the source is classified as a minor or major facility.~~

Lead (Pb) is a criteria air pollutant and is subject to BACT in areas of non-attainment, or is subject to PSD in areas of attainment. Although the SCAQMD complies with the ambient air quality standards for lead (Pb), Pb can be a component of a source's PM<sub>10</sub> emissions and is therefore subject to BACT for PM<sub>10</sub>. BACT for Pb will be BACT for PM<sub>10</sub> or compliance with Rules 1420 or, 1420.1 or 1420.2, whichever is more stringent. In addition, non-attainment pollutants include inorganic gases such as hydrogen chloride (HCl) and hydrogen fluoride (HF), which are precursors to PM<sub>10</sub>, and hydrogen sulfide (H<sub>2</sub>S), a precursor to SO<sub>2</sub>.

The applicability of the various pollutants to NSR in the various air basins is summarized in Table 3. See Figure 1 in the previous chapter for a map of SCAQMD that shows the location of the three air basins in SCAQMD.

**Table 2**  
**Class I Substances (ODCs)\***

<p>A. Group I:  <math>\text{CFCl}_3</math> Trichlorofluoromethane (CFC-11)  <math>\text{CF}_2\text{Cl}_2</math> dichlorodifluoromethane (CFC-12)  <math>\text{C}_2\text{F}_3\text{Cl}_3</math> Trichlorotrifluoroethane (CFC-113)  <math>\text{C}_2\text{F}_4\text{Cl}_2</math> Dichlorotetrafluoroethane (CFC-114)  <math>\text{C}_2\text{F}_5\text{Cl}</math> Monochloropentafluoroethane (CFC-115)            All isomers of the above chemicals</p> <p>B. Group II:  <math>\text{CF}_2\text{ClBr}</math> Bromochlorodifluoromethane (Halon-1211)  <math>\text{CF}_3\text{Br}</math> Bromotrifluoromethane (Halon-1301)  <math>\text{C}_2\text{F}_4\text{Br}_2</math> Dibromotetrafluoroethane (Halon-2402)            All isomers of the above chemicals</p> <p>C. Group III:  <math>\text{CF}_3\text{Cl}</math> Chlorotrifluoromethane (CFC-13)  <math>\text{C}_2\text{FCl}_5</math> (CFC-111)  <math>\text{C}_2\text{F}_2\text{Cl}_4</math> (CFC-112)  <math>\text{C}_3\text{FCl}_7</math> (CFC-211)  <math>\text{C}_3\text{F}_2\text{Cl}_6</math> (CFC-212)  <math>\text{C}_3\text{F}_3\text{Cl}_5</math> (CFC-213)  <math>\text{C}_3\text{F}_4\text{Cl}_4</math> (CFC-214)  <math>\text{C}_3\text{F}_5\text{Cl}_3</math> (CFC-215)  <math>\text{C}_3\text{F}_6\text{Cl}_2</math> (CFC-216)  <math>\text{C}_3\text{F}_7\text{Cl}</math> (CFC-217)            All isomers of the above chemicals</p> <p>D. Group IV:  <math>\text{CCl}_4</math> Carbon Tetrachloride</p> <p>E. Group V:  <math>\text{C}_2\text{H}_3\text{Cl}_3</math> 1,1,1 Trichloroethane (Methyl chloroform)            All isomers of the above chemical except 1,1,2-trichloroethane</p> <p>F. Group VI:  <math>\text{CH}_3\text{Br}</math> Bromomethane (Methyl Bromide)</p> <p><u>H. Group VIII:</u>  <u><math>\text{CH}_2\text{BrCl}</math> (Chlorobromomethane)</u></p>	<p>G. Group VII:  <math>\text{CHFBr}_2</math>  <math>\text{CHF}_2\text{Br}</math> (HBFC-2201)  <math>\text{CH}_2\text{FBr}</math>  <math>\text{C}_2\text{HFBr}_4</math>  <math>\text{C}_2\text{HF}_2\text{Br}_3</math>  <math>\text{C}_2\text{HF}_3\text{Br}_2</math>  <math>\text{C}_2\text{HF}_4\text{Br}</math>  <math>\text{C}_2\text{H}_2\text{FBr}_3</math>  <math>\text{C}_2\text{H}_2\text{F}_2\text{Br}_2</math>  <math>\text{C}_2\text{H}_2\text{F}_3\text{Br}</math>  <math>\text{C}_2\text{H}_2\text{FBr}_2</math>  <math>\text{C}_2\text{H}_3\text{F}_2\text{Br}</math>  <math>\text{C}_2\text{H}_4\text{FBr}</math>  <math>\text{C}_3\text{HFBr}_6</math>  <math>\text{C}_3\text{HF}_2\text{Br}_5</math>  <math>\text{C}_3\text{HF}_3\text{Br}_4</math>  <math>\text{C}_3\text{HF}_4\text{Br}_3</math>  <math>\text{C}_3\text{HF}_5\text{Br}_2</math>  <math>\text{C}_3\text{HF}_6\text{Br}</math>  <math>\text{C}_3\text{H}_2\text{FBr}_5</math>  <math>\text{C}_3\text{H}_2\text{F}_2\text{Br}_4</math>  <math>\text{C}_3\text{H}_2\text{F}_3\text{Br}_3</math>  <math>\text{C}_3\text{H}_2\text{F}_4\text{Br}_2</math>  <math>\text{C}_3\text{H}_2\text{F}_5\text{Br}</math>  <math>\text{C}_3\text{H}_3\text{FBr}_4</math>  <math>\text{C}_3\text{H}_3\text{F}_2\text{Br}_3</math>  <math>\text{C}_3\text{H}_3\text{F}_3\text{Br}_2</math>  <math>\text{C}_3\text{H}_3\text{F}_4\text{Br}</math>  <math>\text{C}_3\text{H}_4\text{FBr}_3</math>  <math>\text{C}_3\text{H}_4\text{F}_2\text{Br}_2</math>  <math>\text{C}_3\text{H}_4\text{F}_3\text{Br}</math>  <math>\text{C}_3\text{H}_5\text{FBr}_2</math>  <math>\text{C}_3\text{H}_5\text{F}_2\text{Br}</math>  <math>\text{C}_3\text{H}_6\text{FBr}</math></p> <p><u>H. Group VIII:</u>  <u><math>\text{CH}_2\text{BrCl}</math></u>  <u>(Chlorobromomethane)</u></p>
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\* 40 CFR, Part 82, Appendix A, Subpart A

**Table 3**  
**Applicability of NSR and BACT to Various Pollutants in**  
**South Coast Air Basin (SOCAB), Salton Sea Air Basin (SSAB),**  
**and Mojave Desert Air Basin (MDAB)**

<u>Air Basin</u>	<u>VOC</u>	<u>NOx</u>	<u>SOx</u>	<u>CO</u>	<u>PM<sub>10</sub></u>	<u>PM<sub>2.5</sub></u>	<u>NH<sub>3</sub></u>	<u>Pb</u>	<u>ODC</u>
SOCAB	√	√	√	√	√	√	√	√	√
SSAB	√	√	√		√		√	√	√
MDAB	√	√	√		√		√	√	√

**PERMIT ACTIONS SUBJECT TO NSR, PSD AND BACT**

SCAQMD's NSR and PSD regulations are preconstruction permit review programs that require the Executive Officer to deny a permit to construct unless the proposed equipment includes BACT when:

- new equipment is installed;
- existing stationary permitted equipment is relocated; or
- existing permitted equipment is modified such that there is an emission increase.

If the new equipment is to replace the same kind of equipment, NSR<sup>4</sup> still requires BACT unless it is an identical replacement, which does not require a new permit according to ~~paragraph (e)(3) of Rule 219 -Equipment Not Requiring a Written Permit Pursuant to Regulation II, as amended May 19, 2000.~~

BACT is not required for a change of operator, provided the facility is a continuing operation at the same location, without modification or change in operating conditions.

In case of relocation of a non-major facility, the facility operator may opt out of installing MSBACT, provided that the owner/operator meets the conditions specified in Rule 1302 (ai) and Rule 1306 (d)(3).<sup>5</sup>

PSD applies to GHG if the source is otherwise subject to PSD for another regulated NSR pollutant and the source is new with has a GHG PTE ≥ 75,000 tons per year CO<sub>2</sub>e, or an existing source with a modification resulting in a similar GHG emissions increase.

It is SCAQMD policy that BACT is required only for emission increases greater than or equal to one (1.0) pound per day.

**CALCULATION PROCEDURES FOR EMISSION INCREASES**

The calculation procedures for determining whether there is an increase in emissions from an equipment modification that triggers BACT are different for NOx

<sup>4</sup> See Rules 1303(a) and 1304(a).

<sup>5</sup> USEPA has expressed concerns with this provision of the NSR Rules for minor polluting facilities as of September 2000. Staff will continue to work with USEPA to resolve this issue.

and SO<sub>x</sub> pollutants from RECLAIM facilities ~~and then~~ for all other cases. In general, the calculation procedures for RECLAIM facilities are less likely to result in an emission increase that requires BACT.

For NO<sub>x</sub> and SO<sub>x</sub> emissions from a source at a RECLAIM facility, there is an emission increase if the maximum hourly potential to emit is greater after the modification than it was before the modification.<sup>6</sup>

For modifications subject to Regulation XIII, there are two possible cases<sup>7</sup>:

1. If the equipment was previously subject to NSR, an emission increase occurs if the new potential to emit in one day is greater than the previous potential to emit in one day.
2. If the equipment was never previously subject to NSR, an emission increase occurs if the new potential to emit in one day exceeds the actual average daily emissions over the two-year period, or other appropriate period, prior to the permit application date. However, for the installation of air pollution controls on any source constructed prior to the adoption of the NSR on October 8, 1976 for the sole purpose of reducing emissions, Rule 1306(f) allows the emission change to be calculated as the post-modification potential to emit minus the pre-modification potential to emit.

The potential to emit is based on permit conditions that directly limit the emissions, or, if there are none, then the potential to emit is based on:

- ~~a)~~ maximum rated capacity; and
- ~~b)~~ the maximum daily hours of operation; and
- ~~c)~~ the physical characteristics of the materials processed.

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<sup>6</sup> See Rule 2005(d).

<sup>7</sup> See Rule 1306(d)(2).

## Chapter 4 - What is BACT?

This chapter explains the definitions of BACT found in SCAQMD rules, state law and federal law.

### **NSR RULES (REGULATION XIII)**

New sources, relocations, and modifications of existing sources that increase nonattainment air contaminant emissions are subject to New Source Review (NSR) regulations which require BACT, among other requirements. Both federal and state laws require this strategy. The federal Clean Air Act (CAA) requirement for Lowest Achievable Emission Rate (LAER) is implemented through BACT in the SCAQMD. Federal LAER applies to major sources only. Although federal LAER applies to any emissions increase at a major stationary source of ozone precursors, SCAQMD has interpreted this provision as a 1.0 lb/day increase in emissions from all sources subject to NSR. According to SCAQMD's rules, BACT requirements may not be less stringent than federal LAER for major polluting facilities. The California Health & Safety Code (H&SC) Section 40405 defines state BACT similar to federal LAER and requires the application of BACT for all new and modified permitted sources subject to NSR.

### **PSD RULES (REGULATION XVII)**

New sources, relocations, and modifications of existing sources that emit attainment air contaminant emissions and certain other specified pollutants are subject to Prevention of Significant Deterioration (PSD) regulations, which require BACT. Pursuant to Rule 1701, the BACT requirement applies to a net emission increase from a permit unit located at minor and major stationary sources. The intention of the PSD requirement is to implement a similar requirement as Regulation XIII to maintain national ambient air quality standards for attainment air contaminants.

### **DEFINITION OF BACT**

Definitions of BACT are found in: Rule 1302 -*Definitions of Regulation XIII - New Source Review*, which applies to all cases in general, except for Rule 1702 – Definitions, which applies only to attainment air contaminants, and Rule 2000 - General, which applies to NO<sub>x</sub> and SO<sub>x</sub> emissions from ~~nearly 400~~ RECLAIM facilities. While the definitions are not identical, they are essentially the same. Section (f) of *Rule 1302 - Definitions* defines BACT as:

*BEST AVAILABLE CONTROL TECHNOLOGY (BACT) means the most stringent emission limitation or control technique which:*

- (1) *has been achieved in practice for such category or class of source; or*
- (2) *is contained in any state implementation plan (SIP) approved by the United States Environmental Protection Agency (EPA) for such category or class of source. A specific limitation or control technique shall not apply if the owner or operator of the proposed source*

- (3) *demonstrates to the satisfaction of the Executive Officer or designee that such limitation or control technique is not presently achievable; or is any other emission limitation or control technique, found by the Executive Officer or designee to be technologically feasible for such class or category of sources or for a specific source, and cost-effective as compared to measures as listed in the Air Quality Management Plan (AQMP) or rules adopted by the District Governing Board.*

The first two requirements in the BACT definition are required by federal law, as LAER for major sources. The third part of the definition is unique to SCAQMD and some other areas in California, and allows for more stringent controls than LAER.

Rule 1303(a)(2), ~~as proposed to adopted, will further~~ requires that economic and technical feasibility be considered in establishing the class or category of sources and the BACT requirements for non-major polluting facilities.

## **REQUIREMENTS OF HEALTH & SAFETY CODE SECTION 40440.11**

Senate Bill 456 (Kelley) was chaptered into state law in 1995 and became effective in 1996. H&SC Section 40440.11 specifies the criteria and process that must be followed by the SCAQMD to update its BACT Guidelines to establish more stringent BACT limits for listed source categories. After consultation with the affected industry, the CARB, and the U.S. EPA, and considerable legal review and analysis, staff concluded that the process specified in SB 456 to update the BACT Guidelines should be interpreted to apply only if the SCAQMD proposes to make BACT more stringent than LAER or to establish BACT for non-major sources. This is because the CAA requires the SCAQMD staff to apply current LAER for major polluting facilities, even if the proposed LAER determination has not gone through the SB456 process. Therefore, the SB 456 requirements do apply to BACT requirements for non-major polluting facilities, but do not apply to federal LAER determinations for major polluting facilities.

## **CLEAN FUEL GUIDELINES ~~REQUIREMENTS~~**

In January 1988, the SCAQMD Governing Board adopted a Clean Fuels Policy that included a requirement to use clean fuels as part of BACT. The implementation of this policy is further described in Parts A and C of these guidelines.

## Chapter 5 - Review of Staff BACT Determinations

New BACT determinations and guideline updates proposed by SCAQMD staff are subject to public notification requirements. In addition to allowing the public to comment on these items, the SCAQMD has established a BACT Scientific Review Committee (BACT SRC) to review and comment on technical matters of the proposals.

The SCAQMD has included provisions for an applicant to request a review of particular circumstances regarding a permit application and reconsideration of the BACT determination. Additional avenues are available to permit applicants for further review of staff BACT determinations through SCAQMD management, BACT Review Committee, Hearing Board, and the Governing Board.

### **BACT SCIENTIFIC REVIEW COMMITTEE (BACT SRC)**

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The BACT SRC was established as a standing committee by action of the SCAQMD Governing Board on September 8, 1995 to enhance the public participation process and include technical review and comments by a focused committee at periodic intervals, prior to the updates of the SCAQMD BACT Guidelines. A 30-day notice period applies for the BACT SRC and interested persons to review and comment on SCAQMD BACT determinations that result in BACT requirements that are more stringent than previously imposed. BACT SRC members, include but are not limited to, representatives from CARB, U.S. EPA, neighboring Air Pollution Control Districts (APCD), with the balance of the committee created by invitation of recognized experts from industry, public utilities, suppliers of air pollution control equipment and advocacy groups. Whenever a committee member resigns or is no longer able to serve, SCAQMD seeks out an appropriate replacement to join the committee. A list of current BACT SRC members can be accessed at:

[www.aqmd.gov/home/permits/bact/scientific-review-committee/src-members](http://www.aqmd.gov/home/permits/bact/scientific-review-committee/src-members).

The overall purpose of the BACT Scientific Review Committee (SRC) is to:

- Comment on proposed new and more stringent BACT determinations in permit applications under 30-day public review.
- Comment on proposed BACT listings for all parts of the BACT Guidelines.

Except for the above, the BACT SRC's purpose is not to comment on past permitting decisions or change them.

Specifically, the role of the BACT SRC is to review and comment in writing on the appropriateness of new BACT determinations under 30-Day public review. During this comment period, SCAQMD, State, and Federal required permit issuance timelines are still in effect. SCAQMD BACT staff will commit to sending the BACT

SRC newly proposed BACT listings at least seven days prior to the next scheduled BACT SRC meeting. Meetings will typically consist of a presentation by BACT Team (BACTTeam@aqmd.gov) staff of new BACT forms and technical data and a general discussion of the proposed BACT listings, as well as addressing any preliminary written comments received from the public and BACT SRC prior to the meeting. SCAQMD staff will respond in writing to preliminary comments about new BACT proposals within ~~two-weeks~~thirty days of the subject BACT SRC meeting. New issues raised during the BACT SRC meetings regarding newly proposed BACT listings will be addressed at the subsequent BACT SRC meeting to allow time for SCAQMD staff to research the comments. SCAQMD Engineering and Compliance staff may also respond to specific issues raised at the following BACT SRC meeting.

In addition to newly proposed BACT listings, the BACT SRC will be tasked with reviewing and commenting on updates to the policy and procedure sections of the BACT Guidelines prior to the guidelines being presented to the SCAQMD Governing Board for approval.

## **MEETING WITH SCAQMD MANAGEMENT**

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SCAQMD management, starting with the Senior ~~Engineering~~ Manager of the permitting team, can consider unique and site-specific characteristics of an individual permit. The ~~allowance flexibility for considering~~ site-specific characteristics has been taken into account in these guidelines ~~designed into the guidelines~~ and can be reviewed with the manager of the section processing the permit. It is also possible to request review at the next level, with the Assistant Deputy Executive Officer of ~~Engineering and Compliance~~. The Senior ~~Engineering~~ Managers and the Assistant Deputy Executive Officers are ~~authorized~~empowered to make case-by-case decisions on an individual permit. Further review can be obtained through a meeting with the Deputy Executive Officer (DEO) of ~~Engineering and Compliance~~. Ultimately, all permitting decisions are the responsibility of the Executive Officer.

## **THE BACT REVIEW COMMITTEE**

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Beyond meetings with SCAQMD management, an applicant may also request, prior to permit issuance or denial, that the proposed BACT for an individual permit be reviewed by the BACT Review Committee (BRC). The BRC is composed of five senior-level SCAQMD officials - the DEO of Public Affairs; the DEO of Science and Technology Advancement; the DEO of ~~Engineering and Compliance~~; the DEO of Planning, Rule Development and Area Sources; and General Counsel. This committee can review pending individual applications and decide if the BACT determination is appropriate. The BRC can be accessed without any fee or legal representation, and will meet upon demand.

## **THE SCAQMD HEARING BOARD**

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After the permit is issued or denied, the applicant can seek further independent review of an individual BACT determination through the SCAQMD Hearing Board. In order to access this venue, the permit applicant would need to submit a petition and fee to appeal the final BACT determination by SCAQMD (once the permit is denied

or issued)<sup>8</sup>. The Hearing Board is an independent, quasi-judicial body composed of five members, who can review a permitting decision by the Executive Officer. In this venue, legal counsel represents the SCAQMD. Although not required, many petitioners choose to have legal counsel to represent their position.

## THE SCAQMD GOVERNING BOARD

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Any applicant may petition the SCAQMD Governing Board to review a pending application pursuant to SCAQMD Regulation XII and Health and Safety Code Section 40509. While ~~t~~The Governing Board has the authority to hear and consider any pending permit application, it has rarely done so. It is important to note that this action must be taken while the permit application is pending with staff. Once staff reaches its decision, the only avenue of appeal is through the Hearing Board and ultimately to court.

~~but this circumstance is extremely rare and cases has only agreed to consider two pending permit applications in the last sixteen years are typically handled during the prior stages of review.~~

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<sup>8</sup> Applicants must file an appeal petition with the Hearing Board within thirty days of the receipt of the permit or the notification of permit denial. See Rule 216 - *Appeals*, Regulation V - *Procedure Before the Hearing Board*, and Rule 303 - *Hearing Board Fees* for more information.

# **PART A - POLICY AND PROCEDURES FOR MAJOR POLLUTING FACILITIES**

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## Chapter 1 - How is LAER Determined for Major Polluting Facilities?

This chapter explains the criteria used for determining LAER<sup>9</sup> and the process for updating Part B of the BACT Guidelines for major polluting facilities.

### CRITERIA FOR DETERMINING LAER FOR MAJOR POLLUTING FACILITIES

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SCAQMD staff determines LAER requirements on a permit-by-permit basis based on the definition of LAER. In essence, LAER is the most stringent emission limit or control technology that is:

- found in a state implementation plan (SIP), or
- achieved in practice (AIP), or
- is technologically feasible and cost effective.

For practical purposes, at this time, nearly all SCAQMD LAER determinations will be based on AIP LAER because it is generally more stringent than LAER based on SIP, and because state law constrains SCAQMD from using the third approach, as such a determination must go through the SB456 process, which may take more time than allowed for the permit decision.

Based on Governing Board policy, LAER also includes a requirement for the use of clean fuels. Terms such as “achieved in practice” and “technologically feasible” have not been defined in the rule, so the purpose of this section is to explain the criteria SCAQMD permitting staff uses to make a LAER determination.

### LAER Based on a SIP

The most stringent emission limit found in an approved state implementation plan (SIP) might be the basis for LAER. This means that the most stringent emission limit adopted by any state as a rule, regulation or permit<sup>10</sup>, and approved by USEPA, is eligible as a LAER requirement. No other parameters are required to be evaluated when this category is chosen. This does not include future emission limits that have not yet been implemented.

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<sup>9</sup> In order to distinguish between BACT for major polluting facilities and BACT for minor polluting facilities, this document uses the term LAER when referring to BACT for major polluting facilities.

<sup>10</sup> Some states incorporate individual permits into their SIP as case-by-case Reasonably Available Control Technology requirements.

## Achieved in Practice LAER

### ***Regulatory Documents***

An emission limit or control technology may be considered achieved in practice (AIP) for a category or class of source if it exists in any of the following regulatory documents or programs:

- SCAQMD BACT Guidelines
- CAPCOA BACT Clearinghouse
- USEPA RACT/BACT/LAER Clearinghouse
- Other districts' and states' BACT Guidelines
- BACT/LAER requirements in New Source Review permits issued by SCAQMD or other agencies

However, staff will check with the permitting authority (other than SCAQMD) on the status of the BACT or LAER requirement. If it is found that an emission limit is not being achieved or a control technology is not performing as expected in the equipment referenced in any of the above sources or in other equipment used as the basis for the BACT or LAER determination, then it will not be considered as AIP.

### ***New Technologies/Emission Levels***

New technologies and innovations of existing technologies occasionally evolve without a regulatory requirement, but still deserve consideration. They may have been voluntarily installed to reduce emissions, and may or may not be subject to an air quality permit or an emission limit. -Therefore, in addition to the above means of being determined as AIP, a control technology or emission limit may also be considered as AIP if it meets all of the following criteria:

Commercial Availability:

At least one vendor must offer this equipment for regular or full-scale operation in the United States. A performance warranty or guaranty must be available with the purchase of the control technology, as well as parts and service.

Reliability:

All control technologies must have been installed and operated reliably for at least six months. If the operator did not require the basic equipment to operate daily, then the equipment must have at least 183 cumulative days of operation. During this period, the basic and/or control equipment must have operated: 1) at a minimum of 50% design capacity; or 2) in a manner that is typical of the equipment in order to provide an expectation of continued reliability of the control technology.

Effectiveness:

The control technology must be verified to perform effectively over the range of operation expected for that type of equipment. If the control technology will be allowed to operate at lesser effectiveness during certain modes of operation, then those modes of operation must be identified. The verification shall be based on a performance test or tests deemed to be acceptable by SCAQMD, when possible, or other performance data.

## ***Technology Transfer***

LAER is based on what is AIP for a category or class of source. However, USEPA guidelines require that technology that is determined to be AIP for one category of source be considered for transfer to other source categories. There are two types of potentially transferable control technologies: 1) exhaust stream controls, and 2) process controls and modifications. For the first type, technology transfer must be considered between source categories that produce similar exhaust streams. For the second type, technology transfer must be considered between source categories with similar processes.

## **Federal PM<sub>2.5</sub> New Source Review and SCAQMD Rule 1325**

PM<sub>2.5</sub> NSR applies to a new major polluting facility, major modifications to a major polluting facility, and any modification to an existing facility that would constitute a major polluting facility. A major polluting facility would be a facility located in areas federally designated pursuant to 40 CFR 81.305 as non-attainment for PM<sub>2.5</sub> for the South Coast Air Basin (SOCAB) which has actual emissions of, or the potential to emit, 4070 tons or more per year of PM<sub>2.5</sub>, or its precursors for serious areas. For major modifications, LAER applies on a pollutant-specific basis to emissions of PM<sub>2.5</sub> and its precursors, for which (1) the source is major, (2) the modification results in a significant increase, and (3) the modification results in a significant net emissions increase.

Significant means in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates<sup>11</sup>:

Nitrogen oxides: 40 tons per year

Sulfur dioxide: 40 tons per year

PM<sub>2.5</sub>: 10 tons per year

Ammonia: 40 tons per year<sup>12</sup>

A facility subject to the Federal PM<sub>2.5</sub> NSR will be required to comply with the following:

- Lowest Achievable Emission Rate (LAER)
- Emission increases offset
- Certification of compliance with Clean Air Act; and
- Analysis conducted of benefits of the proposed project outweigh the environmental and social costs associated with that project.

Please refer to SCAQMD Rule 1325 for specific requirements.

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<sup>11</sup> SCAQMD Rule 1325(b)(12), as amended on December 5, 2014

<sup>12</sup> Ammonia is being added to Rule 1325 as a precursor to PM<sub>2.5</sub> pursuant to EPA's 2016 PM<sub>2.5</sub> SIP implementation Rule. PAR 1325, scheduled for hearing in November 2016, would set a significance threshold of 40 tons per year for ammonia.

## Cost in LAER Determinations

USEPA guidelines do not allow for routine consideration of the cost of control in LAER determinations. However, USEPA guidelines say that LAER is not considered achievable if the cost of control is so great that a new source could not be built or operated with a particular control technology. If a facility in the same or comparable industry already uses the control technology, then such use constitutes evidence that the cost to the industry is not prohibitive.

State law (H&SC 40405) also defines BACT as the lowest achievable emission rate, which is the more stringent of either (i) the most stringent emission limitation contained in the SIP, or (ii) the most stringent emission limitation that is achieved in practice. There is no explicit reference or prohibition to cost considerations, and the applicability extends to all permitted sources. SCAQMD rules implement both state BACT and federal LAER requirements simultaneously, and furthermore specify that SCAQMD BACT must meet federal LAER requirements for major polluting facilities.

If a proposed LAER determination results in extraordinary costs to a facility, the applicant may bring the matter to SCAQMD management for consideration as described in Overview, Chapter 6.

## Clean Fuel Requirements

~~In January 1988, the SCAQMD Governing Board adopted a Clean Fuels Policy that included a requirement to use clean fuels as part of BACT/LAER. A clean fuel is one that produces air emissions equivalent to or lower than natural gas for NO<sub>x</sub>, SO<sub>x</sub>, ROG, and fine respirable particulate matter (PM<sub>10</sub>). Besides natural gas, other clean fuels are methanol, liquid petroleum gas (LPG), and hydrogen. The burning of landfill, digester, refinery and other by-product gases is not subject to the clean fuels requirement. However, the combustion of these fuels must comply with other SCAQMD rules, including the sulfur content of the fuel.~~

~~The requirement of a clean fuel is based on engineering feasibility. Engineering feasibility considers the availability of a clean fuel and safety concerns associated with that fuel. Some state and local safety requirements limit the types of fuel, which can be used for emergency standby purposes. Some fire departments or fire marshals do not allow the storage of LPG near occupied buildings. Fire officials have, in some cases, vetoed the use of methanol in hospitals. If special handling or safety considerations preclude the use of the clean fuel, the SCAQMD has allowed the use of fuel oil as a standby fuel in boilers and heaters, and for emergency standby generators. The use of these fuels must meet the requirements of SCAQMD rules limiting NO<sub>x</sub> and sulfur emissions.~~

## Special Permitting Considerations

Although the most stringent, AIP LAER for a source category will most likely be the required LAER, SCAQMD staff may consider special technical circumstances that apply to the proposed equipment which may allow deviation from that LAER. The permit applicant should bring any pertinent facts to the attention of the SCAQMD permitting engineer for consideration.

### ***Case-Specific Situations***

SCAQMD staff may consider unusual equipment-specific and site-specific characteristics of the proposed project that would warrant a reconsideration of the LAER requirement for new equipment. Here are some examples of what may be considered.

#### **Technical infeasibility of the control technology:**

A particular control technology may not be required as LAER if the applicant demonstrates that it is not technically feasible to install and operate it to meet a specific LAER emission limitation in a specific permitting situation.

#### **Operating schedule and project length:**

If the equipment will operate much fewer hours per year than what is typical, or for a much shorter project length, it can affect what is considered "~~achieved in practice~~" AIP.

#### **Availability of fuel or electricity:**

Some LAER determinations may not be feasible if a project will be located in an area where natural gas or electricity is not available.

#### **Process requirements:**

Some LAER determinations specify a particular type of process equipment. SCAQMD staff may consider requirements of the proposed process equipment that would make the LAER determination not technically feasible.

### ***Equivalency***

The permit applicant may propose alternative means to achieve the same emission reduction as required by LAER. For example, if LAER requires a certain emission limit or control efficiency to be achieved, the applicant may choose any control technology, process modification, or combination thereof that can meet the same emission limit or control efficiency.

### ***Super Clean-Compliant Materials***

SCAQMD will accept the use of super ~~clean-compliant~~ materials in lieu of an add-on control device controlling volatile organic compound (VOC) emissions from coating operations. For example ~~at this time~~, if a permit applicant uses only surface coatings that ~~contain less than 5% VOC by weight~~ meet the super compliant material definition in SCAQMD Rule 109, an add-on control device would not be required for VOC LAER. This policy does not preclude any other LAER requirements for other contaminants.

### ***Equipment Modifications***

As a general rule, it is more difficult to retrofit existing equipment with LAER as a result of NSR modification when compared to a new source. The equipment being modified may not be compatible with some past LAER determinations that specify a particular process type. There may also be space restrictions that prevent installation of some add-on control technology.

## **Other Considerations**

Although multiple process and control options may be available during the LAER determination process, considerations should be made for options that reduce the formation of air contaminants from the process, as well as ensuring that emissions are properly handled. In addition to evaluating the efficiency of the control stage, these additional considerations are needed to ensure that the system is capable of reducing or eliminating emissions from the facility on a consistent basis during the operational life of the equipment.-

### **Pollution Prevention**

The Pollution Prevention Act of 1990 (42 U.S.C. §§13101-13109) established a national policy that pollution should be prevented or reduced at the source whenever feasible. In many cases, air pollution control is a process that evaluates contaminants at the exhaust of the system. Pollution prevention is the reduction or elimination of waste at the source by the modification of the production process. Pollution prevention measures may consist of the use of alternate or reformulated materials, a modification of technology or equipment, or improvement of energy efficiency changes that result in an emissions reduction. These measures should be considered as part of the LAER determination process if the measures will result in the elimination or reduction of emissions, but are not required to include projects which are considered to fundamentally redefine the source. New and different emissions created by a process or material change will also need to be considered as part of the LAER determination process, in contrast to the overall emissions reductions from the implementation of pollution prevention measures. U.S. EPA policy defined pollution prevention as source reduction and other practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water, or other resources, and protection of natural resources by conservation<sup>13</sup>. U.S. EPA further specifies that pollution prevention does not include recycling (except in-process recycling), energy recovery, treatment or disposal. For purposes of these BACT Guidelines, and to be consistent with federal definitions, source reduction and pollution prevention ~~shall~~ may include, but not be limited to, a consideration of the feasibility of:

- equipment or technology modifications,
- process or procedure modifications,
- reformulation or redesign of products,
- substitution of raw materials, or
- improvements in housekeeping, maintenance or inventory control,

that reduce the amount of air contaminants entering any waste stream or otherwise released into the environment, including fugitive emissions.

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<sup>13</sup> U.S. EPA Pollution Prevention Law and Policies ([www.epa.gov/p2/pollution-prevention-law-and-policies#define](http://www.epa.gov/p2/pollution-prevention-law-and-policies#define))

**Monitoring and Testing**

In order to ensure that LAER determinations continue to meet their initial emission and efficiency standards, periodic or continuous parameter monitoring and testing requirements may be required during the permitting process. Equipment and processes may experience some change over time, due to aging or operational methods of the equipment, which may affect emission rates or control efficiencies. In addition to other rule requirements, additional monitoring and testing requirements may need to focus on aspects directly related to the BACT determination, and may be made enforceable by permit conditions. Monitoring and testing requirements should be specific to characterize operating conditions (e.g. temperatures, pressures, flows, production rates) and measurement techniques when LAER is established to ensure clarity and consistency with the standard.

**Capture Efficiency**

An integral part of controlling air pollutants emitted from a process with add-on air pollution control equipment is capturing those emissions and directing them to the air pollution control device. Emissions which are designed to be collected by an exhaust system but are vented uncontrolled into the atmosphere can have a much greater impact than controlled emissions. When applicable, the evaluation of a process and its associated control equipment should address the qualification and quantification of capture efficiency. By addressing capture efficiency during LAER determinations, a standard can be established to evaluate the capture efficiency of other systems, as well as ensure that the capture efficiency is maintained consistently over time.

If applicable, LAER determinations may include the percentage capture efficiency and the methods and measurements (e.g. EPA Method 204, capture velocity measurements, design using ACGIH's Industrial Ventilation, static pressures) used to determine and verify it. For various circumstances, several SCAQMD rules (Table 4) already require an assessment of collection efficiency of an emission control system following EPA Method 204, EPA's "Guidelines for Determining Capture Efficiency", SCAQMD's "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency," or other methods approved by the Executive Officer, and are appropriate to include as LAER requirements. The capture efficiency for any LAER Determination shall be no less stringent than any applicable rule requirement. Other considerations that may affect capture, such as cross-drafts, thermal drafts and the volume of combustion products, should also be addressed during this process.

**Table 4**

**SCAQMD Regulation XI and XIV Rules with Capture Efficiency Requirements or Considerations**

- |               |                 |                 |               |                 |
|---------------|-----------------|-----------------|---------------|-----------------|
| • <u>1103</u> | • <u>1125</u>   | • <u>1136</u>   | • <u>1162</u> | • <u>1420.1</u> |
| • <u>1104</u> | • <u>1126</u>   | • <u>1141</u>   | • <u>1164</u> | • <u>1420.2</u> |
| • <u>1106</u> | • <u>1128</u>   | • <u>1141.2</u> | • <u>1171</u> | • <u>1425</u>   |
| • <u>1107</u> | • <u>1130</u>   | • <u>1144</u>   | • <u>1175</u> | • <u>1469</u>   |
| • <u>1115</u> | • <u>1130.1</u> | • <u>1145</u>   | • <u>1178</u> | • <u>1469.1</u> |
| • <u>1122</u> | • <u>1131</u>   | • <u>1155</u>   | • <u>1407</u> |                 |
| • <u>1124</u> | • <u>1132</u>   | • <u>1156</u>   | • <u>1420</u> |                 |

## LAER APPLICATION CUT-OFF DATES

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For applications submitted by major polluting facilities, LAER requirements will be determined based on information available up to the date the permit to construct is issued. This requirement allows interested parties to comment on possible technologies that could provide lower emissions.

Applications for a Registration Permit for equipment issued a valid Certified Equipment Permit (CEP), which is valid for one year, will only be required to comply with LAER as determined at the time the CEP was issued. However, SCAQMD staff will reevaluate the LAER requirements for the CEP upon ~~annual~~-renewal of the Title V permit. ~~CEP by the equipment manufacturer.~~

## LAER UPDATE PROCESS

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SCAQMD will update Section I – SCAQMD LAER/BACT Determinations of Part B of the BACT Guidelines on an ongoing basis with actual LAER determinations for SCAQMD permits issued to major polluting facilities. The process will depend on whether or not the LAER requirement is more stringent than previous SCAQMD LAER determinations for the same equipment category.

When SCAQMD permitting staff makes a LAER determination that is no more stringent than previous SCAQMD LAER determinations, the permitting team will issue the permit and forward information regarding this LAER determination to the BACT/~~NSR~~ Team.<sup>14</sup> The BACT/~~NSR~~ Team will review this LAER determination with the BACT SRC prior to listing in the BACT Guidelines.

Whenever permitting staff makes a LAER determination that is more stringent than what SCAQMD has previously required as LAER, the permit to construct may be subject to a public review. In any event depending on Rule 212, ~~the~~ permitting team will forward the preliminary LAER determination to the BACT/~~NSR~~ Team, who will prepare and send a public notice of the preliminary determination to the BACT SRC, potentially interested persons, and anyone else requesting the information. Staff will consider all comments filed during the 30-day review period before making a permit decision. Staff will make every effort to conduct the public review consistent with the requirements of state law. However, if the 30-day review period conflicts with the deadline of the Permit Streamlining Act<sup>15</sup> for issuing the permit, the permit will be issued in accordance with state law. The 30-day public review may also be done in parallel with other public reviews mandated by *Rule 212 - Standards for Approving Permits and Issuing Public Notice or Regulation XXX - Title V Permits* in applicable cases.

On a ~~quarterly~~-periodic basis, the SCAQMD BACT/~~NSR~~ Team will provide standing status reports to the SCAQMD Governing Board's Stationary Source Committee and to the Governing Board.

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<sup>14</sup> To reduce the burden on SCAQMD of preparing hundreds of LAER Determination Forms each month, forms will not be prepared for routine LAER determinations after Part B, Section I of the guidelines has sufficient entries to demonstrate typical LAER requirements.

<sup>15</sup> The requirements of the Permit Streamlining Act are also found in SCAQMD's Rule 210.

In summary, as technology advances, many categories in the SCAQMD's BACT Guidelines will be updated with new listings. This on-going process will reflect new lower emitting technologies not previously identified in the Guidelines.

## **CLEAN FUEL GUIDELINES REQUIREMENTS**

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In January 1988, the SCAQMD Governing Board adopted a Clean Fuels Policy that included a requirement to use clean fuels as part of BACT/LAER. A clean fuel is one that produces air emissions equivalent to or lower than natural gas for NO<sub>x</sub>, SO<sub>x</sub>, ROG, and fine respirable particulate matter (PM<sub>10</sub>). Besides natural gas, other clean fuels are methanol, liquid petroleum gas (LPG), and hydrogen and electricity. Industrial electrification (e.g., replacement of I.C. Engines, etc.) is Utilization of zero and near-zero emission technologies are also integrated into the Clean Fuels Policy. The burning of landfill, digester, refinery and other by-product gases is not subject to the clean fuels requirement. However, the combustion of these fuels must comply with other SCAQMD rules, including the sulfur content of the fuel.

The requirement of a clean fuel is based on engineering feasibility. Engineering feasibility considers the availability of a clean fuel and safety concerns associated with that fuel. Some state and local safety requirements limit the types of fuel, which can be used for emergency standby purposes. Some fire departments or fire marshals do not allow the storage of LPG near occupied buildings. Fire officials have, in some cases, vetoed the use of methanol in hospitals. If special handling or safety considerations preclude the use of the clean fuel, the SCAQMD has allowed the use of fuel oil as a standby fuel in boilers and heaters, fire suppressant pump engines and for emergency standby generators. The use of these fuels must meet the requirements of SCAQMD rules limiting NO<sub>x</sub> and sulfur emissions.

## Chapter 2 - How to Use Part B of the BACT Guidelines

This chapter explains the LAER information found in Part B - LAER/BACT Determinations for Major Polluting Facilities. Part B is a listing of LAER/BACT determinations for major polluting facilities contained in SCAQMD and other air pollution control agencies' permits, and data on new and emerging technologies. These LAER/BACT determinations and data are guides and will be used, along with other information, to determine LAER as outlined in Chapter 1. For a listing of equipment types, refer to the ~~Index~~ List of Equipment Categories. LAER determination for equipment not found in Part B of the BACT Guidelines is done according to the process outlined in Chapter 1.

### GENERAL

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Part B is divided into three sections. Section I – SCAQMD LAER/BACT Determinations, contains information on LAER/BACT determinations contained in permits issued by SCAQMD, with permit limits based on achieved in practice technology. Section II – Non-AQMD LAER/BACT Determinations, lists LAER/BACT determinations contained in other air pollution control agencies' permits or BACT Guidelines, with permit limits based on achieved in practice technology. Section III – Other Technologies, consists of information on technologies which have been achieved in practice but are not reflected in a permit limit, and information on emerging technologies or emission limits which have not yet been achieved in practice (i.e., do not qualify as LAER). All three sections are subdivided based on the attached ~~Index~~ List of Equipment Categories. Within each category, the LAER/BACT determinations will be listed in order of stringency.

Each listing includes the following information, in addition to other information detailing the description and operation of the equipment ~~subdivided into the following six sections:~~

- Basic Equipment<sup>16</sup>  
This provides information on the type, model, style, manufacturer, function, and cost of the basic equipment. It also lists applicable SCAQMD Regulation XI rules. Cost data are generally obtained from the SCAQMD application forms, manufacturer or owner/operator, and are not verified.
- Basic Equipment Rating/Size  
This identifies the size, dimensions, capacity, or rating of the basic equipment. It also provides additional information such as fuel type for combustion equipment, weight of parts cleaned per load for degreasers, and the number and size of blowers for spray booths.
- Company Information  
This identifies the contact person and owner/operator of the equipment, along with telephone numbers.

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<sup>16</sup> Basic equipment is the process or equipment, which emits the air contaminant for which BACT is being determined.

- Permit Information

This identifies the permitting agency and the name and telephone number of the agency's contact person. It also provides information on Permits to Construct/Operate. The SCAQMD is always the issuing agency for LAER determinations listed in Section I.

- Emission Information

This identifies the actual permit limits and LAER/BACT requirements set forth by the issuing agency for the equipment being evaluated. It provides technical, performance, and cost data on the control technology used to achieve the permit limit and the LAER/BACT requirements.

- Comment

This provides additional information relevant to basic equipment and control technology assessment, or further explains or clarifies the LAER/BACT determination.

The above ~~six sections~~ information will enable permit applicants to assess the applicability of each LAER/BACT determination to their particular equipment.

The LAER requirements usually found in ~~section 5A~~ of the LAER Determination listings are in the form of:

- an emission limit;
- a control technology;
- equipment requirements; or
- a combination of the last two-

If the requirement is an emission limit, the applicant may choose any control technology to achieve the emission limit. The SCAQMD prefers to set an emission limit as LAER because it allows an applicant the most flexibility in reducing emissions. If control technology and/or equipment requirements are the only specified LAER, then either emissions from the equipment are difficult to measure or it was not possible to specify an emission limit that applies to all equipment within the category. Where possible, an emission limit or control efficiency condition will be specified on the permit along with the control technology or equipment requirements to ensure that the equipment is properly operated with the lowest emissions achievable.

## HOW TO DETERMINE LAER

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The Part B LAER determinations are only examples of LAER determinations for equipment that have been issued permits or that have been demonstrated in practice. As described in Chapter 1, LAER is determined on a case-by-case basis. To find out what LAER is likely to be for a particular equipment, the applicant should review the Part B LAER determinations found at the SCAQMD website [www.aqmd.gov/home/permits/bact](http://www.aqmd.gov/home/permits/bact) ~~http://www.aqmd.gov/bact~~. The CAPCOA Clearinghouse maintained by the California Air Resources Board and the USEPA RACT/BACT/LAER Clearinghouse should also be reviewed. These compendiums contain information from other districts, local agencies, and states that may not be included in the SCAQMD BACT Guidelines. Finally, the SCAQMD permitting staff may be contacted to discuss LAER prior to submitting a permit application.

As described in Chapter 1, the permit applicant should bring to the attention of the SCAQMD permitting engineer any special permitting considerations that may affect the LAER determination.

# **PART B - LAER/BACT DETERMINATIONS FOR MAJOR POLLUTING FACILITIES**

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Part B of the BACT Guidelines is maintained on the SCAQMD Internet website at <http://www.aqmd.gov/home/permits/bact/guidelines> ~~http://www.aqmd.gov/bact~~.

# **PART C - POLICY AND PROCEDURES FOR NON-MAJOR POLLUTING FACILITIES**

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## Chapter 1 - How Is MSBACT Determined for Minor Polluting Facilities?

This chapter explains the definitions of BACT for non-major polluting facilities (minor source BACT or MSBACT) found in SCAQMD rules and state law and how they are interpreted. It also explains the criteria used for initializing the Part D MSBACT Guidelines and the process for updating the MSBACT Guidelines.

### **INITIALIZATION OF PART D OF THE MSBACT GUIDELINES**

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Part D of the MSBACT Guidelines specifies the MSBACT requirements for all of the commonly permitted categories of equipment. (See Chapter 2 for a full explanation of Part D).

~~The initial~~The initial listings in Part D of the MSBACT Guidelines reflected the current BACT determinations at the time for sources at non-major polluting facilities as of April 2000. ~~This~~These initialization ~~does~~did not represent new requirements but rather ~~memorializes~~memorialized ~~current~~ BACT determinations and emission levels at that time. This initialization ~~is~~was necessary to benchmark the transition from federal LAER to MSBACT for non-major polluting facilities. The control technologies and emission levels identified ~~initially will apply~~applied to any non-major source subject to NSR until the Guideline ~~is~~was updated or ~~becomes~~became out of date. The dates listed on the BACT determinations in Part D refer to the date of adoption of the determination. The dates listed do not grandfather the equipment from complying with any new requirements or limits that are implemented after the approval of a BACT determination<sup>17</sup>.

### **CRITERIA FOR NEW MSBACT AND UPDATING PART D**

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MSBACT requirements are determined for each source category based on the definition of MSBACT. In essence, MSBACT is the most stringent emission limit or control technology that is:

- found in a state implementation plan (SIP), or
- achieved in practice (AIP), or
- is technologically feasible and cost effective.

For practical purposes, nearly all SCAQMD MSBACT determinations will be based on AIP BACT because it is generally more stringent than MSBACT based on SIP, and because state law contains some constraints on SCAQMD from using the third approach. For minor polluting facilities, MSBACT will also take economic feasibility into account.

Based on Governing Board policy, MSBACT also includes a requirement for the use of clean fuels.

Terms such as “achieved in practice” and “technologically feasible” (including technology transfer) have not been defined in the rule, so one of the purposes of this

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<sup>17</sup> SCAQMD Rule 1303(a)(3)

section is to explain the criteria SCAQMD permitting staff uses to make a MSBACT determination.

## **MSBACT Based on a SIP**

The most stringent emission limit found in an approved state implementation plan (SIP) might be the basis for MSBACT. This means that the most stringent emission limit adopted by any state as a rule, regulation or permit<sup>18</sup> and approved by USEPA is eligible as a MSBACT requirement. This does not include future emission limits that have not yet been implemented.

## **Achieved in Practice MSBACT**

MSBACT may also be based on the most stringent control technology or emission limit that has been achieved in practice (AIP) for a category or class of source. AIP control technology may be in operation in the United States or any other part of the world. SCAQMD permitting engineers will review the following sources to determine what is the most stringent AIP MSBACT:

- LAER/BACT determinations in Part B of the BACT Guidelines
- CAPCOA BACT Clearinghouse
- USEPA RACT/BACT/LAER Clearinghouse
- Other districts' and states' BACT Guidelines
- Permits to operate issued by SCAQMD or other agencies
- Any other source for which the requirements of AIP can be demonstrated

### ***Achieved in Practice Criteria***

A control technology or emission limit found in any of the references above may be considered as AIP if it meets all of the following criteria:

Commercial Availability:

At least one vendor must offer this equipment for regular or full-scale operation in the United States. A performance warranty or guaranty must be available with the purchase of the control technology, as well as parts and service.

Reliability:

The control technology must have been installed and operated reliably for at least twelve months on a comparable commercial operation. If the operator did not require the basic equipment to operate continuously, such as only eight hours per day and 5 days per week, then the control technology must have operated whenever the basic equipment was in operation during the twelve months.

Effectiveness:

The control technology must be verified to perform effectively over the range of operation expected for that type of equipment. If the control technology will be allowed to operate at lesser effectiveness during certain modes of operation, then

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<sup>18</sup> Some states incorporate individual permits into their SIP as case-by-case Reasonably Available Control Technology requirements.

those modes must be identified. The verification shall be based on a District-approved performance test or tests, when possible, or other performance data.

Cost Effectiveness:

The control technology or emission rate must be cost effective for a substantial number of sources within the class or category. Cost effectiveness criteria are described in detail in a later section. Cost criteria are not applicable to an individual permit but rather to a class or category of source.

### ***Technology Transfer***

MSBACT is based on what is AIP for a category or class of source. However, technology transfer must also be considered across source categories, in view of the other AIP criteria. There are two types of potentially transferable control technologies: 1) exhaust stream controls, and 2) process controls and modifications. For the first type, technology transfer must be considered between source categories that produce similar exhaust streams. For the second type, process similarity governs the technology.

## **Requirements of Health & Safety Code Section 40440.11**

Senate Bill 456 (Kelley) was chartered into state law in 1995 and became effective in 1996. H&SC Section 40440.11 specifies the criteria and process that must be followed by the SCAQMD to establish new MSBACT limits for source categories listed in the MSBACT Guidelines. In general, the provisions require:

- Considering only control options or emission limits to be applied to the basic production or process equipment;
- Evaluating cost to control secondary pollutants;
- Determining the control technology is commercially available;
- Determining the control technology has been demonstrated for at least one year on a comparable commercial operation;
- Calculating total and incremental cost-effectiveness;
- Determining that the incremental cost-effectiveness is less than SCAQMD's established cost-effectiveness criteria;
- Putting BACT Guideline revisions on a regular meeting agenda of the SCAQMD Governing Board;
- Holding a Board public hearing prior to revising maximum incremental cost-effectiveness values;
- Keeping a BACT determination made for a particular application unchanged for at least one year from the application deemed complete date; and
- Considering a longer period for a major capital project (> \$10,000,000)

After consultation with the affected industry, the CARB, and the U.S. EPA, and considerable legal review and analysis, staff concluded that the process specified in SB 456 to update the BACT Guidelines should be interpreted to apply only if the SCAQMD proposes to make BACT more stringent than LAER or where LAER is inapplicable (e.g. in establishing minor source BACT). Staff intends to incorporate

the spirit and intent of the SB 456 provisions into the MSBACT update process, as explained below, because non-major polluting facilities are no longer subject to federal LAER, according to Regulation XIII. Therefore, MSBACT may consider cost as specified herein.

## COST EFFECTIVENESS METHODOLOGY

Cost effectiveness is measured in terms of control costs (dollars) per air emissions reduced (tons). If the cost per ton of emissions reduced is less than the maximum required cost effectiveness, then the control method is considered to be cost effective. This section also discusses the updated maximum cost effectiveness values, and those costs, which can be included in the cost effectiveness evaluation.

There are two types of cost effectiveness: average and incremental. Average cost effectiveness considers the difference in cost and emissions between a proposed MSBACT and an uncontrolled case. On the other hand, incremental cost effectiveness looks at the difference in cost and emissions between the proposed MSBACT and alternative control options.

Applicants may also conduct a cost effectiveness evaluation to support their case for the special permit considerations discussed in Chapter 2.

### Discounted Cash Flow Method

The discounted cash flow method (DCF) is used in the MSBACT Guidelines. This is also the method used in SCAQMD the 1999 Air Quality Management Plan. The DCF method calculates the present value of the control costs over the life of the equipment by adding the capital cost to the present value of all annual costs and other periodic costs over the life of the equipment. A real interest rate<sup>19\*</sup> of four percent, and a 10-year equipment life is used. The cost effectiveness is determined by dividing the total present value of the control costs by the total emission reductions in tons over the same 10-year equipment life.

### Maximum Cost Effectiveness Values

The MSBACT maximum cost effectiveness values, shown in Table 45, are based on a DCF analysis with a 4% real interest rate.

**Table 45: Maximum Cost Effectiveness Criteria ~~(Second Quarter 2003)~~ (1<sup>st</sup> 2nd Quarter 2016)**

Pollutant	Average (Maximum \$ per Ton)	Incremental (Maximum \$ per Ton)
ROG	<u>28,370</u> <del>460</del> <u>20,200</u>	<u>85,100</u> <del>380</del> <u>60,600</u>
NOx	<u>26,820</u> <del>910</del> <u>19,100</u>	<u>80,320</u> <del>590</del> <u>57,200</u>
SOx	<u>14,180</u> <del>230</del> <u>10,100</u>	<u>42,550</u> <del>690</del> <u>30,300</u>

<sup>19</sup> The real interest rate is the difference between market interest rates and inflation, which typically remains constant at four percent.

\* The real interest rate is the difference between market interest rates and inflation, which typically remains constant at four percent.

Pollutant	Average (Maximum \$ per Ton)	Incremental (Maximum \$ per Ton)
PM <sub>10</sub>	<u>6,324</u> 04,500	<u>18,828</u> 013,400
CO	<u>560</u> 400	<u>1,620</u> 1,150

The cost criteria are based on those adopted by the SCAQMD Governing Board in the 1995 BACT Guidelines, adjusted to ~~first~~ second quarter ~~2016~~ 2003-dollars using the Marshall and Swift Equipment Cost Index. Cost effectiveness analyses should use these figures adjusted to the latest Marshall and Swift Equipment Cost Index. Contact the BACT Team for current figures, which is published monthly in Chemical Engineering.

## Top-Down Cost Methodology

The SCAQMD uses the top-down approach for evaluating BACT and cost effectiveness. This means that the best control method, with the highest emission reduction, is first analyzed. If it is not cost effective, then the second-best control method is evaluated for cost effectiveness. The process continues until a control method is found to be cost-effective. This process provides a mechanism for all practical and potential control technologies to be evaluated. As part of the permitting process, the applicant is responsible for preparing the BACT analysis, and submitting it to the District for review and approval.

The top-down process consists of five steps:

### **1. Identify all control technologies**

Identify all possible air pollution control options for the emissions unit. In addition to add-on control, control options may include production process methods and techniques. Innovative, transferable technologies, and LAER technologies should also be identified.

### **2. Eliminate technically infeasible options**

The technologies identified in Step 1 should be evaluated for technical feasibility. Elimination of any of the technologies identified in Step 1 should be well-documented and based on physical, chemical and engineering principles.

### **3. Rank remaining control technologies**

Based on overall control effectiveness, all remaining technically feasible control options should be ranked for the pollutants under review. A list should be generated for each pollutant subject to the BACT analysis. This list should include control efficiencies, emission rates, emission reductions, environmental impacts and energy impacts. Environmental impacts may include multimedia impacts and the impacts of the control option on toxic emissions.

### **4. Evaluation**

Evaluate the most effective controls and document the results. For each option, the applicant is responsible for objectively discussing each of the beneficial and adverse impacts. Typically, the analysis should focus on the direct impacts. Calculations for

both incremental and average cost effectiveness should be completed during this step. The MSBACT option must be cost effective for both analyses. In the event that the top option from Step 4 is ruled out after the impacts and cost effectiveness are evaluated, the decision and reasoning should be fully documented. The next most stringent alternative from Step 4, should then be evaluated.

### **5. Select BACT**

The most effective control option not eliminated in Step 4 is proposed as BACT for the pollutant and permit unit and presented to the District for review and approval.

~~The SCAQMD uses the top down approach for evaluating cost effectiveness. This means that the best control method, with the highest emission reduction, is first analyzed. If it is not cost effective, then the second best control method is evaluated for cost effectiveness. The process continues until a control method is found to be cost effective.~~

~~AQMD staff will calculate both incremental and average cost effectiveness. The new MSBACT must be cost effective based on both analyses.~~

### **Costs to Include in a Cost Effectiveness Analysis**

Cost effectiveness evaluations consider both capital and operating costs. Capital cost includes not only the price of the equipment, but the cost for shipping, engineering and installation. Operating or annual costs include expenditures associated with utilities, labor and replacement costs. Finally, costs are reduced if any of the materials or energy created by the process result in cost savings. These cost items are shown in Table 56. Methodologies for determining these values are given in documents prepared by USEPA through their Office of Air Quality Planning and Standards (QAQPS-EPA Air Pollution Control Cost Manual, 4th-Sixth Edition, 2002, USEPA 450452/3B-9002-006-001 and Supplements).

The cost of land will not be considered because 1) add-on control equipment usually takes up very little space, 2) add-on control equipment does not usually require the purchase of additional land, and 3) land is non-depreciable and has value at the end of the project. In addition, the cost of controlling secondary emissions and cross-media pollutants caused by the primary MSBACT requirement should be included in any required cost effectiveness evaluation of the primary MSBACT requirement.

Table 56: Cost Factors

<b><u>Total Capital Investment</u></b>	
<u>Purchased Equipment Cost</u> Control Device Ancillary (including duct work) Instrumentation Taxes Freight	<u>Indirect Installation Costs</u> Engineering Construction and Field Expenses Start-Up Performance Tests Contingencies
<u>Direct Installation Cost</u> Foundations and Supports Handling and Erection Electrical Piping Insulation Painting	
<b><u>Total Annual Cost</u></b>	
<u>Direct Costs</u> Raw Materials Utilities - Electricity - Fuel - Steam - Water - Compressed Air Waste Treatment/Disposal Labor - Operating - Supervisory - Maintenance Maintenance Materials Replacement Parts	<u>Indirect Costs</u> Overhead Property Taxes Insurance Administrative Charges <u>Recovery Credits</u> Materials Energy

**CLEAN FUEL GUIDELINES REQUIREMENTS**

In January 1988, the SCAQMD Governing Board adopted a Clean Fuels Policy that included a requirement to use clean fuels as part of BACT. A clean fuel is one that produces air emissions equivalent to or lower than natural gas for NO<sub>x</sub>, SO<sub>x</sub>, ROG, and fine respirable particulate matter (PM<sub>10</sub>). Besides natural gas, other clean fuels are ~~methanol~~, liquid petroleum gas (LPG), ~~and hydrogen and electricity~~. Industrial electrification (e.g., replacement of I.C. Engines, etc.) is Utilization of zero and near-zero emission technologies are also integrated into the Clean Fuels Policy. The burning of landfill, digester, refinery and other by-product gases is not subject to the

clean fuels requirement ~~as they are considered industry~~. However, the combustion of these fuels must comply with other SCAQMD rules, including the sulfur content of the fuel.

The requirement of a clean fuel is based on engineering feasibility. Engineering feasibility considers the availability of a clean fuel and safety concerns associated with that fuel. Some state and local safety requirements limit the types of fuel, which can be used for emergency standby purposes. Some fire departments or fire marshals do not allow the storage of LPG near occupied buildings. Fire officials have, in some cases, vetoed the use of methanol in hospitals. If special handling or safety considerations preclude the use of the clean fuel, the SCAQMD has allowed the use of fuel oil as a standby fuel in boilers and heaters, fire suppressant pump engines and for emergency standby generators. The use of these fuels must meet the requirements of SCAQMD rules limiting NO<sub>x</sub> and sulfur emissions. In addition, the Clean Fuel requirements for MSBACT are subject to the provisions of California Health and Safety Code Section 40440.11.

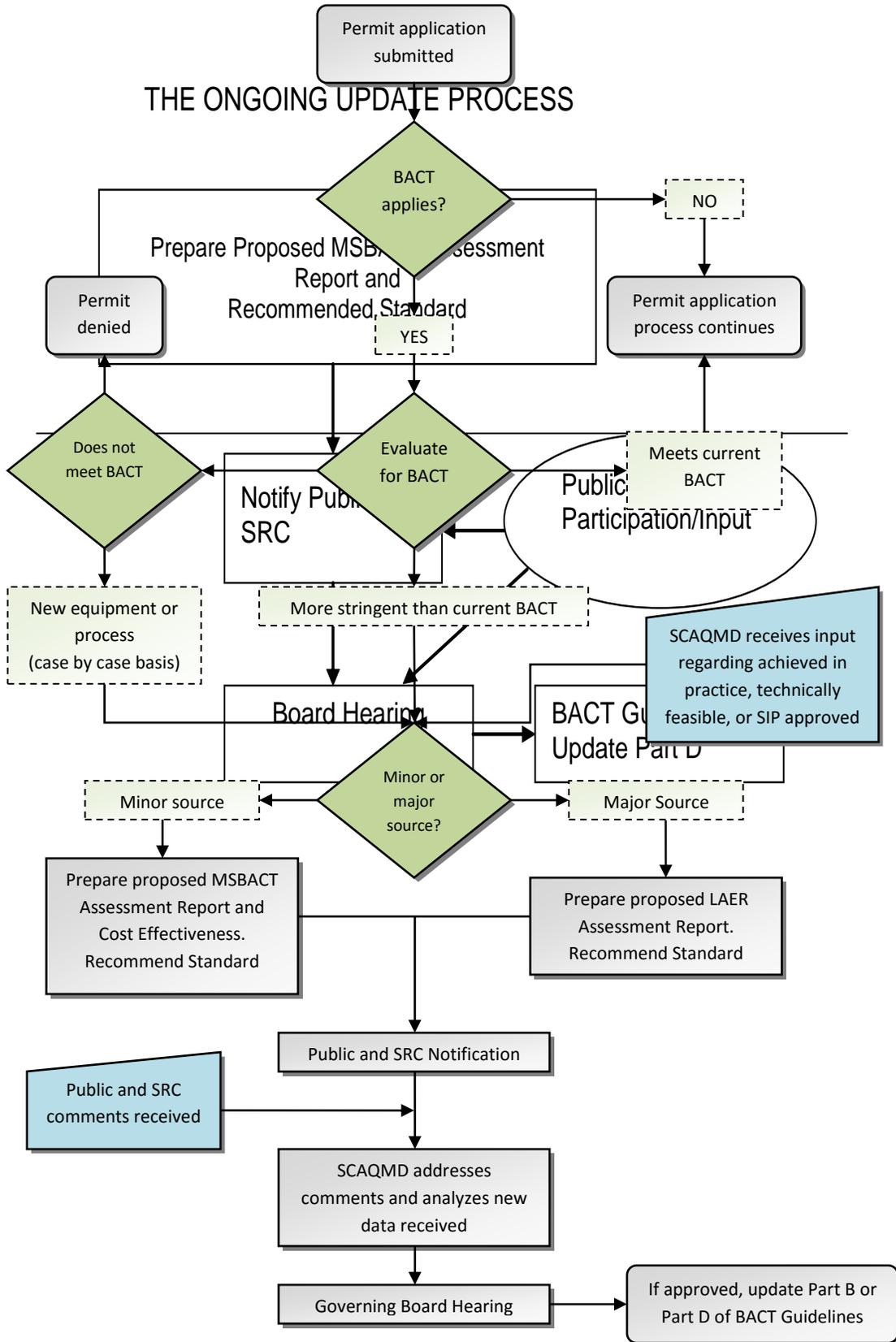
## **BACT UPDATE PROCESS**

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As technology advances, the SCAQMD's MSBACT Part D Guidelines will be updated. Updates will include revisions to the guidelines for existing equipment categories, as well as new guidelines for new categories.

The MSBACT Guidelines will be revised based on the criteria outlined in the previous sections. Once a more stringent emission limit or control technology has been reviewed by staff and is determined to meet the criteria for MSBACT, it will be reviewed through a public process. The process is shown schematically in Figure 2. The public will be notified and the BACT Scientific Review Committee (SRC) will have an opportunity to comment. Following the public process and comment period, the guidelines will be presented to the Governing Board for approval at a public hearing, prior to updates of the MSBACT Guidelines, Part D.

Figure 2: The Ongoing BACT Update Process



## Chapter 2 - How to Use Part D of the MSBACT Guidelines

This chapter explains the MSBACT information found in Part D - MSBACT Guidelines. The Guidelines in Part D should be used to determine MSBACT for non-major polluting facilities. For a listing of equipment, refer to the Part D Table of Contents. Determination of MSBACT for equipment not found in Part D of the MSBACT Guidelines is also explained.

### GENERAL

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Part D includes MSBACT Guidelines for more than 100 categories of equipment commonly processed by SCAQMD. Some guidelines are further subdivided by equipment size, rating, type or the material used, as appropriate.

The MSBACT requirements are in the form of:

- 1) an emission limit;
- 2) a control technology;
- 3) equipment requirements; or
- 4) a combination of the last two.

If the requirement is an emission limit, the applicant may choose any control technology to achieve the emission limit. The SCAQMD prefers to set an emission limit as MSBACT because it allows an applicant the most flexibility in reducing emissions.

If a control technology and/or equipment requirements are the only specified MSBACT, then either emissions from the equipment are difficult to measure or it was not possible to specify an emission limit that applies to all equipment within the category. Where possible, an emission limit or control efficiency condition will be specified in the permit along with the control technology or equipment requirements to ensure that the equipment is properly operated with the lowest emissions achievable. An applicant may still propose to use other ways to achieve the same or better emission reduction than the specified MSBACT.

MSBACT is the control technology or emission limit given in Part D for the basic equipment or process being evaluated, unless the guideline is out of date, or there are special permitting conditions, or the equipment is not identified in Part D. In those cases, the procedures described in the following sections will be used to determine MSBACT. Applicants or other interested parties are encouraged to contact the SCAQMD permitting staff if there are any questions about MSBACT.

### SPECIAL PERMITTING CONSIDERATIONS

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Although the most stringent, AIP BACT for a source category will most likely be the required MSBACT, SCAQMD staff may consider special technical

circumstances that apply to the proposed equipment which may allow deviation from that MSBACT. The permit applicant should bring any pertinent facts to the attention of the SCAQMD permitting engineer for consideration.

## Case-Specific Situations

SCAQMD staff may consider unusual equipment-specific and site-specific characteristics of the proposed project that would warrant a reconsideration of the MSBACT requirement for new equipment.

### **Technical infeasibility of the control technology:**

—A particular control technology may not be required as MSBACT if the applicant demonstrates that it is not technically feasible to install and operate it to meet a specific MSBACT emission limitation in a specific permitting situation.

### **Operating schedule and project length:**

If the equipment will operate much fewer hours per year than what is typical, or for a much shorter project length, it can affect what is considered “AIP”.

### **Availability of fuel or electricity:**

Some MSBACT determinations may not be feasible if a project will be located in an area where natural gas or electricity is not available.

### **Process requirements:**

Some MSBACT determinations specify a particular type of process equipment. SCAQMD staff may consider requirements of the proposed process equipment that would make the MSBACT determination not technically feasible.

## Equivalency

The permit applicant may propose alternative means to achieve the same emission reduction as required by BACT. For example, if BACT requires a certain emission limit or control efficiency to be achieved, the applicant may choose any control technology, process modification, or combination thereof that can meet the same emission limit or control efficiency.

## Super Clean-Compliant Materials

SCAQMD will accept the use of super clean-compliant materials in lieu of an add-on control device controlling volatile organic compound (VOC) emissions from coating operations. For example-at this time, if a permit applicant uses only surface coatings that meet the super compliant material definition in SCAQMD Rule 109 ~~contain less than 5% VOC by weight~~, it may qualify as VOC MSBACT. This policy does not preclude any other MSBACT requirement for other contaminants.

## Equipment Modifications

As a general rule, it is more difficult to retrofit existing equipment with MSBACT as a result of NSR modification when compared to a new source. The equipment being modified may not be compatible with some past MSBACT

determinations that specify a particular process type. There may also be space restrictions that prevent installation of some add-on control technology.

## **Other Considerations**

Although multiple process and control options may be available during the MSBACT determination process, considerations should be made for options that reduce the formation of air contaminants from the process, as well as ensuring that emissions are properly handled. In addition to evaluating the efficiency of the control stage, these additional considerations are needed to ensure that the system is capable of reducing or eliminating emissions from the facility on a consistent basis during the operational life of the equipment. Measures listed in this section for MSBACT are subject to the requirements of California Health and Safety Code Section 40440.11.

## **Pollution Prevention**

The Pollution Prevention Act of 1990 (42 U.S.C. §§13101-13109) established a national policy that pollution should be prevented or reduced at the source whenever feasible. In many cases, air pollution control is a process that evaluates contaminants at the exhaust of the system. Pollution prevention is the reduction or elimination of waste at the source by the modification of the production process. Pollution prevention measures may consist of the use of alternate or reformulated materials, a modification of technology or equipment, or improvement of energy efficiency changes that result in an emissions reduction. These measures should be considered as part of the MSBACT determination process if the measures will result in the elimination or reduction of emissions, but are not required to include projects which are considered to fundamentally redefine the source. New and different emissions created by a process or material change will also need to be considered as part of the MSBACT determination process, in contrast to the overall emissions reductions from the implementation of pollution prevention measures. U.S. EPA policy defined pollution prevention as source reduction and other practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water, or other resources, and protection of natural resources by conservation<sup>20</sup>. U.S. EPA further specifies that pollution prevention does not include recycling (except in-process recycling), energy recovery, treatment or disposal. For purposes of these BACT Guidelines, and to be consistent with federal definitions, source reduction and pollution prevention shall may include, but not be limited to, consideration of the feasibility of:

- equipment or technology modifications,
- process or procedure modifications,
- reformulation or redesign of products,
- substitution of raw materials, or
- improvements in housekeeping, maintenance or inventory control,

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<sup>20</sup> U.S. EPA Pollution Prevention Law and Policies ([www.epa.gov/p2/pollution-prevention-law-and-policies#define](http://www.epa.gov/p2/pollution-prevention-law-and-policies#define))

that reduce the amount of air contaminants entering any waste stream or otherwise released into the environment, including fugitive emissions.

### **Monitoring and Testing**

In order to ensure that MSBACT determinations continue to meet their initial emission and efficiency standards, periodic or continuous parameter monitoring and testing requirements may be implemented required during the permitting process. Equipment and processes may experience some change over time, due to aging or operational methods of the equipment, which may affect emission rates or control efficiencies. In addition to other rule requirements, additional monitoring and testing requirements may need to focus on aspects directly related to the MSBACT determination, and may be made enforceable by permit conditions. Monitoring and testing requirements should be specific to characterize operating conditions (e.g. temperatures, pressures, flows, production rates) and measurement techniques when MSBACT is established to ensure clarity and consistency with the standard.

### **Capture Efficiency**

An integral part of controlling air pollutants emitted from a process with add-on air pollution control equipment is capturing those emissions and directing them to the air pollution control device. Emissions which are designed to be collected by an exhaust system but are vented uncontrolled into the atmosphere can have a much greater impact than controlled emissions. When applicable, the evaluation of a process and its associated control equipment should address the qualification and quantification of capture efficiency. By addressing capture efficiency during MSBACT determinations, a standard can be established to evaluate the capture efficiency of other systems, as well as ensure that the capture efficiency is maintained consistently over time.

If applicable, MSBACT determinations may include the percentage capture efficiency and the methods and measurements (e.g. EPA Method 204, capture velocity measurements, design using ACGIH's Industrial Ventilation, static pressures) used to determine and verify it. For various circumstances, several SCAQMD rules (see Table 5, Part A, Chapter 1) already require an assessment of collection efficiency of an emission control system following EPA Method 204, EPA's "Guidelines for Determining Capture Efficiency", SCAQMD's "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency," or other methods approved by the Executive Officer, and are appropriate to include as BACT requirements. The capture efficiency for any MSBACT Determination shall be no less stringent than any applicable rule requirement. Other considerations that may affect capture, such as cross-drafts, thermal drafts and the volume of combustion products, should also be addressed during this process.

## **MSBACT Determinations Should the Guidelines Become Out of Date**

Should the MSBACT Guideline Part D become out of date with state BACT requirements or permits issued for similar equipment in other parts of the state,

staff will evaluate permits consistent with the definition of BACT considering technical and economic criteria as required by Rule 1303 (a) and Health & Safety Code Section 40405. The technical and economic factors to be considered are those identified in Chapter 1.

## **BACT APPLICATION CUT-OFF DATES**

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These guidelines apply to all non-major polluting facility applications deemed complete subsequent to SCAQMD Governing Board adoption of the Regulation XIII amendments in 2000.

Applications for a Registration Permit for equipment issued a valid Certified Equipment Permit (CEP), which is valid for one year, will only be required to comply with MSBACT as determined at the time the CEP was issued. However, SCAQMD staff will reevaluate the MSBACT requirements for the CEP upon annual renewal of the CEP by the equipment manufacturer.

# **PART D - BACT GUIDELINES FOR NON-MAJOR POLLUTING FACILITIES**

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Part D of the BACT Guidelines is published as a separate document.

**PART E – POLICY AND PROCEDURES**  
**FOR FACILITIES SUBJECT TO**  
**PREVENTION OF SIGNIFICANT**  
**DETERIORATION FOR GREENHOUSE**  
**GASES**

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## Chapter 1 - GHG BACT

This chapter explains the requirements of greenhouse gases (GHG) BACT regulations according to EPA, describes the Top-Down Process, shows how to calculate GHG emissions and explains the Prevention of Significant Deterioration (PSD) Applicability for GHGs for new sources as well as modified sources. Currently, the Tailoring Rule is undergoing a revision to address the U.S. Supreme Court decision in *Utility Air Regulatory Group v. Environmental Protection Agency*, 134 S. Ct. 2427 (2014)<sup>21</sup>. The guidance in this chapter is applicable to the EPA requirements in place as of the date of these guidelines, and takes into consideration the U.S. Supreme Court decision in *Utility Air Regulatory Group v. Environmental Protection Agency*, 134 S. Ct. 2427 (2014)<sup>22</sup>, as well as SCAQMD Rule 1714.

### BACKGROUND

EPA has found that GHG, made of up of six combined compounds, constitute air pollution that endanger public health and welfare. EPA's adopted requirements for GHG under 40 CFR 52.21 Tailoring Rule was issued in May 2010, which were revised in October 2015, to establishing a way to permit GHG emissions under PSD and Title V. Through this rule, permitting focused on the major industrial sources, which emit nearly 70 percent of the greenhouse gas pollution from stationary sources. At this time, smaller businesses and sources are not be subject to these requirements.

The requirements of this rule apply only to GHG as defined by EPA as a total group of six GHG which are: carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF<sub>6</sub>). All other attainment air contaminants, as defined in SCAQMD Rule 1702 subdivision (a), shall be regulated for the purpose of PSD. PSD is not applicable to air contaminants designated as nonattainment status.

### PERMITTING GUIDANCE FOR GHG

EPA's "PSD and Title V Permitting Guidance for Greenhouse Gases" provides the basic information that permit writers and applicants need to address GHG emissions in permits. Although this guidance was issued prior to the revision of 40 CFR 52.21 in 2015, there are parts still applicable to the current requirements. The applicable parts of the guidance document are summarized in these Guidelines. The guidance:

- applies long-standing PSD and Title V permitting requirements and processes to GHG;
- reiterates that BACT determinations will continue to be a state, and project specific decision;

<sup>21</sup> The UARG v. EPA decision limited the scope originally envisioned by the Tailoring Rule, and now only "anyway sources" are subject to GHG BACT.

<sup>22</sup> The UARG v. EPA decision limited the scope originally envisioned by the Tailoring Rule, and now only "anyway sources" are subject to GHG BACT. On October 3, 2016, EPA proposed revising 40 CFR 52.21 to establish a Significant Emissions Rate for GHGs at the same threshold of 75,000 ton per year CO<sub>2</sub>e as Step 1 of the Tailoring Rule for "anyway" sources.

- does not prescribe GHG BACT for any source type;
- emphasizes the importance of BACT options that improve energy efficiency;
- points out that Carbon Capture and Sequestration (CCS) is a promising technology in the early stage of demonstration and commercialization (it should be identified as an available control measure in the first step of BACT, it is currently an expensive technology and unlikely to be selected as BACT in most cases);
- clarifies that EPA does not intend to require GHG to be addressed in permits issued before January 2, 2011 that do not become effective until after this date;
- notes that biomass could be considered BACT after taking into account environmental, energy, and economic considerations and state and federal policies that promote biomass for energy-independence and environmental reasons. In its memorandum<sup>23</sup> dated November 19, 2014, EPA states that it is still assessing and monitoring biogenic feedstocks and will provide further guidance. Further updates can be found at EPA's webpage "CO2 Emissions Associated with Biomass Use at Stationary Sources."
- provides flow charts and examples that illustrate the key points of the traditional five-step process for determining BACT for GHG; and
- identifies technical resources related to GHG emissions and controls.

## **FEDERAL PSD APPLICABILITY FOR GHG**

Beginning January 2, 2011, GHG are regulated as a NSR contaminant. GHG BACT applies when a new or modified facility is subject to PSD requirements for GHG. The first step for PSD applicability determination for new or modified sources is listed in the Tables 7 and 8 below that address the Tailoring Rule requirements in 40 CFR 52.21. A second step for PSD applicability is contemporaneous netting. For detailed guidance on this topic, EPA's "PSD and Title V Permitting Guidance for Greenhouse Gases" (March 2011) should be referenced, but should be used in accordance with EPA's clarifying documents regarding the U.S. Supreme Court decision in *Utility Air Regulatory Group v. Environmental Protection Agency*<sup>24</sup> and the current requirements under 40 CFR 52.21.

In determining PSD applicability, a differentiation between GHG CO<sub>2</sub>e and mass basis must be made. GHG mass basis is simply the sum of all six GHG compound mass emissions. However, to obtain GHG CO<sub>2</sub>e, the mass emissions of each individual GHG compound must be multiplied by its 100-year Global Warming Potential (GWP). The individual GHG CO<sub>2</sub>e are then summed to obtain the total CO<sub>2</sub>e for the source. Current GWP factors should be obtained from EPA's website when performing these calculations.

<sup>23</sup> EPA Memo: "Addressing Biogenic Carbon Dioxide Emissions from Stationary Sources, (2014 November 9)

<sup>24</sup> EPA Memo: Next Steps and Preliminary Views on the Application of Clean Air Act Permitting Programs to Greenhouse Gases Following the Supreme Court's Decision, (2014, July 24)

**Table 7**  
**GHG PSD Applicability for New Sources**

<b>PSD applies to GHG if:</b>
<ol style="list-style-type: none"> <li>1. <u>The source is otherwise subject to PSD for another regulated NSR pollutant, <b>AND</b></u></li> <li>2. <u>The source has a GHG PTE <math>\geq</math> 75,000 tons per year (TPY) CO<sub>2</sub>e;</u></li> </ol>

**Table 8**  
**GHG PSD Applicability for Modified Sources**

<b>PSD applies to GHG if:</b>
<ol style="list-style-type: none"> <li>1. <u>The modification is otherwise subject to PSD for another regulated NSR pollutant, <b>AND</b></u></li> <li>2. <u>The modification results in a GHG emissions increase <del>or</del> and net emissions increase:</u> <ol style="list-style-type: none"> <li>a. <u>PTE <math>\geq</math> 75,000 TPY CO<sub>2</sub>e, <b>AND</b></u></li> <li>b. <u>&gt; zero TPY mass basis</u></li> </ol> </li> </ol>

**Contemporaneous Netting**

Contemporaneous netting is the process of considering all of the creditable emission increases and decreases that have occurred during the period beginning five years before the proposed construction of the modification through the date that the emission increase from the modification occurs. When calculating the net emissions increase in Table 8 above for PSD applicability, it must include all emission increases and decreases during this period.

**SCAQMD PSD APPLICABILITY FOR GHG**

SCAQMD adopted Rule 1714 in 2010 to implement the PSD GHG requirements set forth by 40 CFR 52.21. SCAQMD Rule 1714 incorporates the provisions of 40 CFR 52.21 by reference, excluding the sections listed under SCAQMD Rule 1714 (c)(1). SCAQMD PSD applicability should be determined following the applicable sections of the Code of Federal Regulation identified in the rule.

## **TOP-DOWN BACT PROCESS**

EPA recommends that permitting authorities continue to use the EPA’s five-step “Top-Down” BACT process to determine BACT for GHG (U.S. EPA, 2011)<sup>25</sup>. While this section summarizes the steps in the process, further details for each of the steps can be referenced in EPA’s guidance document.

### **BACT Step 1 – Identify All Available Control Options**

The first step in the top-down BACT process is to identify all “available” control options. Available control options are those air pollution control technologies or techniques (including lower-emitting processes and practices) that have the potential for practical application to the emissions unit and the regulated pollutant under evaluation.

Permit applicants and permitting authorities should identify all “available” GHG control options that have the potential for practical application to the source under consideration.

The application of BACT to GHG does not affect the discretion of a permitting authority to exclude options that would fundamentally redefine a proposed source. GHG control technologies are likely to vary based on the type of facility, processes involved, and GHG being addressed. EPA has emphasized the importance of energy efficiency improvements.—The first category of energy efficiency improvement options includes technologies or processes that maximize the efficiency of the individual emissions unit. The second category of energy efficiency improvements includes the options that could reduce emissions from a new greenfield facility by improving utilization of thermal energy and electricity that is generated and used on site.

For the purposes of a BACT analysis for GHG, EPA classifies CCS as an add-on pollution control technology that is “available” for large CO<sub>2</sub>-emitting facilities including fossil fuel-fired power plants and industrial facilities with high-purity CO<sub>2</sub> streams (e.g., hydrogen production, ammonia production, natural gas processing, ethanol production, ethylene oxide production, cement production, and iron and steel manufacturing).

### **BACT Step 2 – Eliminate Technically Infeasible Options**

Under the second step of the top-down BACT analysis, a potentially applicable control technique listed in Step 1 may be eliminated from further consideration if it is not technically feasible for the specific source under review. EPA generally considers a technology to be technically feasible if it has been successfully operated on the same type of source under review, or is available and applicable to the source under review.

Assuming CCS has been included in Step 1 of the top-down BACT process for such sources, it now must be evaluated for technical feasibility in Step 2. CCS is composed of three main components: CO<sub>2</sub> capture and/or compression, transport, and storage. CCS may be eliminated from a BACT analysis in Step 2 if it can be shown that there are significant differences pertinent to the successful operation for anyeach of these three main components from what has already

<sup>25</sup> U.S. EPA (2011). PSD and Title V Permitting Guidance for Greenhouse Gases

been applied to a differing source type. For example, the temperature, pressure, pollutant concentration, or volume of the gas stream to be controlled, may differ so significantly from previous applications that it is uncertain the control device will work in the situation currently undergoing review. CCS may be eliminated from a BACT analysis in Step 2 if the three components working together are deemed technically infeasible for the proposed source, taking into account the integration of the CCS components with the base facility and site-specific considerations (e.g., space for CO<sub>2</sub> capture equipment at an existing facility, right-of-ways to build a pipeline or access to an existing pipeline, access to suitable geologic reservoirs for sequestration, or other storage options).

### **BACT Step 3 – Ranking of Controls**

After the list of all available controls is winnowed down to a list of the technically feasible control technologies in Step 2, Step 3 of the top-down BACT process calls for the remaining control technologies to be listed in order of overall control effectiveness for the regulated NSR pollutant under review. The most effective control alternative (i.e., the option that achieves the lowest emissions level) should be listed at the top and the remaining technologies ranked in descending order of control effectiveness. The ranking of control options in Step 3 determines where to start the top-down BACT selection process in Step 4.

The options considered in a BACT analysis for GHG emissions will likely include, but not necessarily be limited to, control options that result in energy efficiency measures to achieve the lowest possible emission level. Where plant-wide measures to reduce emissions are being considered as GHG control techniques, the concept of overall control effectiveness will need to be refined to ensure the suite of measures with the lowest net emissions from the facility is the top-ranked measure. Ranking control options based on their net output-based emissions ensures that the thermal efficiency of the control option, as well as the power demand of that control measure, is fully considered when comparing options in Step 3 of the BACT analysis. Finally, to best reflect the impact on the environment, the ranking of control options should be based on the total CO<sub>2</sub>e rather than total mass or, mass for the individual GHG.

### **BACT Step 4 – Economic, Energy, and Environmental Impacts**

Under Step 4 of the top-down BACT analysis, permitting authorities must consider the economic, energy, and environmental impacts arising from each option remaining under consideration. Accordingly, after all available and technically feasible control options have been ranked in terms of control effectiveness (BACT Step 3), the permitting authority should consider any specific energy, environmental, and economic impacts identified with those technologies to either confirm that the top control alternative is appropriate or determine it to be inappropriate.

There are compelling public health and welfare reasons for BACT to require all GHG reductions that are achievable, considering economic impacts and the other listed statutory factors. As a key step in the process of making GHG a regulated pollutant, EPA has considered scientific literature on impacts of GHG emissions and has made a final determination that emissions of six GHG endanger both the public health and the public welfare of current and future

generations. Potential impacts that may be considered in this step based on the EPA's January 2010 Endangerment Finding<sup>26</sup> are detailed in EPA's guidance document. Among the public health impacts and risks that EPA cited are anticipated increases in ambient ozone and serious ozone-related health effects, increased likelihood of heat waves affecting mortality and morbidity, risk of increased intensity of hurricanes and floods, and increased severity of coastal storm events due to rising sea levels. With respect to public welfare, EPA cited numerous and far-ranging risks to food production and agriculture, forestry, water resources, sea level rise and coastal areas, energy, infrastructure, and settlements, and ecosystems and wildlife. The potentially serious adverse impacts of extreme events such as wildfires, flooding, drought and extreme weather conditions also supported EPA's finding.

When conducting a BACT analysis for GHG, the environmental impact analysis should continue to concentrate on impacts other than the direct impacts due to emissions of the regulated pollutant in question. Where GHG control strategies affect emissions of other regulated pollutants, applicants and permitting authorities should consider the potential trade-offs of selecting particular GHG control strategies.

### **BACT Step 5 – Selecting BACT**

In Step 5 of the BACT determination process, the most effective control option not eliminated in Step 4 should be selected as BACT for the pollutant and emissions unit under review and included in the permit. For energy-producing sources, one way to incorporate the energy efficiency of a process unit into the BACT analysis is to compare control effectiveness in BACT Step 3 based on output-based emissions of each of the control options. Establishing an output-based BACT emissions limit, or a combination of output- and input-based limits, wherever feasible and appropriate to ensure that BACT is complied with at all levels of operation should be considered.

## **GHG CONTROL MEASURES WHITE PAPERS**

EPA has a series of technical “white papers” that summarize readily available information on control techniques and measures to reduce GHG emissions from specific industrial sectors. These papers provide basic technical information which may be useful in a BACT analysis, but they do not define BACT for each sector. The industrial sectors covered include:

- Electric Generating Units (PDF) (48pp, 805k)  
EPA Contact: Christian Fellner (919-541-4003 or  
fellner.christian@epa.gov)
- Large Industrial/Commercial/Institutional Boilers (PDF) (39pp,  
337k)  
EPA Contact: Jim Eddinger (919-541-5426 or  
edding.jim@epa.gov)
- Pulp and Paper (PDF) (62pp, 421k)  
EPA Contact: Bill Schrock (919-541-5032 or schrock.bill@epa.gov)

<sup>26</sup> <https://www3.epa.gov/climatechange/endangerment/>

- Cement (PDF) (48pp, 220k)  
EPA Contact: Keith Barnett (919-541-5605 or barnett.keith@epa.gov)
- Iron and Steel Industry (PDF) (78pp, 620k)  
EPA Contact: Donna Lee Jones (919-541-5251 or jones.donnalee@epa.gov)
- Refineries (PDF) (42pp, 707k)  
EPA Contact: Brenda Shine (919-541-3608 or shine.brenda@epa.gov)
- Nitric Acid Plants (PDF) (31pp, 544k)  
EPA Contact: Nathan Topham (919-541-0483 or topham.nathan@epa.gov)
- Landfills (PDF) (28pp, 250k)  
EPA Contact: Hillary Ward (919-541-3154 or ward.hillary@epa.gov)

# **PART F – BACT DETERMINATIONS FOR FACILITIES SUBJECT TO PREVENTION OF SIGNIFICANT DETERIORATION FOR GREENHOUSE GASES**

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(This section is currently under development)

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# LIST OF ABBREVIATIONS

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<b>AIP</b>	Achieved in Practice
<b>APCD</b>	<del>Air Pollution Control District</del> Air Pollution Control District
<b>AQMD</b>	<del>South Coast Air Quality Management District</del>
<b>AQMP</b>	Air Quality Management Plan
<b>BACT</b>	Best available control technology
<b>BRC</b>	BACT Review Committee, <u>SCAQMD</u>
<b>CAA</b>	Clean Air Act
<b>CAPCOA</b>	California Air Pollution Control Officers Association
<b>CARB</b>	<u>California Air Resources Board</u>
<b>CCS</b>	<u>Carbon Capture and Sequestration</u>
<b>CEP</b>	Certified Equipment Permit
<b>CFC</b>	Chlorofluorocarbons
<b>CFR</b>	Code of Federal Regulations
<b>CO</b>	Carbon monoxide
<b>CO<sub>2</sub></b>	<u>Carbon dioxide</u>
<b>CO<sub>2</sub>e</b>	<u>Carbon dioxide equivalent</u>
<b>DCF</b>	<u>Discounted Cash Flow Method</u>
<b>DEO</b>	Deputy Executive Officer
<b>GHG</b>	<u>Greenhouse Gas(es)</u>
<b>GWP</b>	<u>Global Warming Potential</u>
<b>H&amp;SC</b>	Health and Safety Code, California State
<b>LAER</b>	Lowest achievable emission rate
<b>LPG</b>	Liquefied petroleum gas
<b>MDAB</b>	Mojave Desert Air Basin
<b>MICR</b>	<u>Maximum Individual Cancer Risk</u>
<b>MSBACT</b>	Minor Source BACT
<b>NO<sub>2</sub></b>	Nitrogen dioxide
<b>NOx</b>	Oxides of nitrogen
<b>NSR</b>	New Source Review
<b>ODC</b>	Ozone depleting compounds
<b>Pb</b>	<u>Lead</u>
<b>PM<sub>10</sub></b>	Particulate matter less than 10 microns in diameter
<b>PM<sub>2.5</sub></b>	<u>Particulate matter less than 2.5 microns in diameter</u>
<b>PSD</b>	<u>Prevention of Significant Deterioration</u>
<b>PTE</b>	<u>Potential to Emit</u>
<b>RACT</b>	Reasonably available control technology
<b>RECLAIM</b>	Regional Clean Air Incentives Market
<b>ROG</b>	Reactive organic gas
<b>RTC</b>	<u>RECLAIM trading credit</u>
<b>SCAQMD</b>	<u>South Coast Air Quality Management District</u>
<b>SIP</b>	State Implementation Plan
<b>SOCAB</b>	South Coast Air Basin

<b>SO<sub>x</sub></b>	Oxides of sulfur
<b>SRC</b>	<u>BACT</u> Scientific Review Committee
<b>SSAB</b>	Salton Sea Air Basin
<b>T-BACT</b>	<u>Best available control technology for toxics</u>
<b>TPY</b>	<u>Tons per year</u>
<b>USEPA</b>	United States Environmental Protection Agency
<b>VOC</b>	Volatile organic compound

# LISTINDEX OF EQUIPMENT CATEGORIES

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## A

Abrasive Blasting

Enclosed

Room

Absorption Chiller

Air Start Unit

Air Stripper - Ground Water Treatment

~~Aluminum Melting Furnace—Crucible or Pot (All Charge)~~

~~Aluminum Melting Furnace—Crucible or Pot, Ingot and/or Clean Scrap Charge Only~~

~~Aluminum Melting Furnace—Reverberatory, Non-Sweating, Ingot or Contaminated Scrap Charge~~

~~Aluminum Melting Furnace—Reverberatory or Rotary, Non-Sweating, Ingot or non-Contaminated Scrap Charge~~

~~Aluminum Melting Furnace—Reverberatory, Sweating, Ingot or Contaminated Scrap Charge~~

~~Aluminum Melting Furnace—Rotary, Sweating~~

~~With Air Pre-Heat, Ingot or Contaminated Scrap Charge~~

Ammonium Bisulfate and Thiosulfate Production

~~Animal Feed Manufacturing—Dry Material Handling (see Bulk Solid Material Handling)~~

Asbestos Machining Equipment

Asphalt Batch Plant

Asphalt Roofing Line

~~Asphalt Storage Tank (see Storage Tank—Liquid)~~

Asphalt Day Tanker

Auto ~~body~~ Body Shredder

## B

Ball Mill

Beryllium Machining Equipment

~~Blender (see Mixer)~~

Boiler

~~Boiler—Refinery Gas Fired~~

~~Natural Gas or Propane Fired~~

~~Atmospheric Unit~~

~~Landfill Gas Fired~~

~~Digester Gas Fired Boiler, CO—Refinery~~

~~Boiler—Agricultural Waste (Biomass) Fired~~

~~Boiler—Landfill or Digester Gas fired~~

~~Boiler—Municipal Solid Waste (MSW) Fired~~

~~Boiler—Wood Fired~~

Brake Pad Grinder

Brakeshoe Debonder

Brass Melting Furnace  
 –Crucible  
~~Brass Melting Furnace—Cupola~~  
 Brass Melting Furnace—Reverberatory or Rotary, Non-Sweating  
 Brass Melting Furnace—Reverberatory or Rotary, Sweating  
~~Brass Melting Furnace—Rotary, Non-Sweating~~  
~~Brass Melting Furnace—Rotary, Sweating~~  
 Brass Melting Furnace—Tilting Induction  
 Bulk Cement - Ship Unloading  
 Bulk Solid Material Handling-Other  
Animal Feed Mfg. – Dry Material Handling  
Clay, Ceramic, and Refractories Handling  
Coal, Coke and Sulfur Handling and Storage  
Feed and Grain Handling  
Paper and Fiber Handling  
Pneumatic Conveying - Except Paper and Fibers  
Railcar Dumper

Bulk Solid Material - Ship Loading—  
 \_\_\_ Non-White Commodities  
 \_\_\_ Bulk Solid Material—Ship Loading—White Commodities  
 Bulk Solid Material Ship Unloading  
 \_\_\_ —Except Bulk Cement  
Other Bulk Solid Materials

Bulk Solid Material Storage  
 \_\_\_ Coal, Coke and Sulfur Handling and Storage  
 \_\_\_ -Other -Non-White Commodities  
 \_\_\_ Bulk Solid Material Storage—White Commodities  
Storage Tank and Silos  
Other Open Storage

Burnoff or Burnout Furnace (Excluding Wax Burnoff Furnace)

**C**

~~Calcined Petroleum Coke Handling~~  
~~Calcined Petroleum Coke Truck Loading and Unloading~~  
 Calciner  
 Calciner -  
 \_\_\_ Petroleum Coke  
 \_\_\_ Other  
Portland Cement  
~~Calciner—Portland Cement~~  
 Carpet Beating and Shearing  
~~Carpet Oven (see Dryer or Oven)~~  
Catalyst Manufacturing and Regeneration  
 \_\_\_ Calcining  
 \_\_\_ Catalyst Solids Handling  
FCCU  
 \_\_\_ —Reactor  
Regeneration  
 \_\_\_ Catalyst Manufacturing—Rotary or Spray Dryer

~~Catalyst Manufacturing—Spray Dryer~~  
~~Catalyst Regeneration—Fluidized Catalyst Cracking Unit~~  
~~Catalyst Regeneration—Hydrocarbon Removal~~  
~~Catalyst Regeneration and Manufacturing—Calcining~~  
~~Cement Handling (see Bulk Cement—Ship Unloading)~~  
~~Charbroiler, Chain-driven (Conveyorized)~~  
~~Chemical Milling Tank—~~  
~~\_\_\_Aluminum and Magnesium~~  
~~\_\_\_Chemical Milling Tank—Nickel Alloys, Stainless Steel and Titanium~~  
~~Chip Dryer~~  
~~Chrome Plating—~~  
~~\_\_\_Decorative Chrome~~  
~~\_\_\_Chrome Plating—Hard Chrome~~  
~~Circuit Board Etcher—~~  
~~\_\_\_Batch Immersion Type, Subtractive Process~~  
~~\_\_\_Circuit Board Etcher—Conveyorized Spray Type, Subtractive Process~~  
~~Circuit Board Photoresist Developer~~  
~~Clay, Ceramic, and Refractories Handling (Except Mixing) (see Bulk Solid Material Handling)~~  
~~Cleaning Compound Blender~~  
~~CO<sub>2</sub> Plant~~  
~~Coal, Coke and Sulfur Handling and Storage (see Bulk Solid Material Handling and Bulk Solid Material Storage)~~  
~~Coffee Roasting~~  
~~\_\_\_Roaster~~  
~~\_\_\_Handling Equipment~~  
~~Coffee Roasting—Handling Equipment~~  
~~Commodities Handling and Storage (see Bulk Solid Material Handling and Bulk Solid Material Storage)~~  
~~Composting~~  
~~\_\_\_Co-composting~~

~~Compressors (see Fugitive Emission Sources)~~  
~~Connectors—Gas/Vapor and Light Liquid (see Fugitive Emission Sources)~~  
~~Concrete Batch Plant~~  
~~\_\_\_—Central Mixed~~

~~\_\_\_Concrete Batch Plant—Transit-Mixed~~  
~~Concrete Blocks and Forms Manufacturing~~  
~~Cotton Gin~~  
~~Crematory~~

**D**

~~Degreaser — Other~~  
~~\_\_\_Batch-Loaded or Conveyorized Cold Cleaners~~  
~~\_\_\_Film Cleaning Machine~~  
~~\_\_\_Solvent Spraying~~

~~Degreaser—Conveyorized Vapor, Volatile Organic Compounds\_Degreaser - Vapor Cleaning, Volatile Organic Compounds~~

Batch  
Conveyorized  
~~Degreaser—Other~~  
~~Detergent Manufacturing—~~  
\_\_\_ Solids Handling  
\_\_\_ Spray Dryer  
~~Detergent Manufacturing—Spray Dryer~~  
~~Diaphragm (see Fugitive Emission Sources)~~  
~~Diesel Engine (see I.C. Engine—Compression Ignition)~~  
~~Drum Reclamation Furnace~~  
~~Dry Cleaning —~~  
\_\_\_ Perchloroethylene  
\_\_\_ Petroleum Solvent  
~~Dry Cleaning—Petroleum Solvent~~  
~~Dry Material Handling (see Bulk Solid Material Handling)~~  
~~Dryer - Kiln~~  
~~Dryer—Rotary, Spray and Flash~~  
~~Dryer—Tenter Frame, Fabric~~  
~~Dryer - Tray, Agitated Pan, and Rotary Vacuum~~  
~~Dryer or Oven—Direct and Indirect Fired~~  
\_\_\_ Carpet Oven  
\_\_\_ Rotary, Spray and Flash Dryers  
\_\_\_ Tenter Frame Fabric Dryer  
\_\_\_ Tray, Agitated Pan, and Rotary Vacuum Dryers  
\_\_\_ Other - Direct and Indirect Fired

## E

~~Electric Furnace - Pyrolyzing, Carbonizing and Graphitizing~~  
~~Electrical Wire Reclamation - Insulation Burnoff Furnace~~  
~~Ethylene Oxide Sterilization~~  
\_\_\_ Aeration  
\_\_\_ —Quarantine Storage  
~~Ethylene Oxide Sterilization/Aeration~~  
~~Expanded Polystyrene Manufacturing, Using Blowing Agent (see Polymeric Cellular [Foam] Product Manufacturing)~~  
~~Extrusion (see Plastic or Resin Extrusion)~~

## F

~~Fatty Acid - Fat Hydrolyzing and Fractionation~~  
~~Fatty Alcohol~~  
~~Feed and Grain Handling (see Bulk Solid Material Handling)~~  
~~Fermentation - Beer and Wine~~  
\_\_\_ All Closed Systems  
\_\_\_ All Open Systems  
~~Fertilizer Handling (see Bulk Solid Material Handling)~~  
~~Fiber Impregnation~~  
~~Fiberglass Fabrication (see Polyester Resin Operations)~~  
~~Film Cleaning Machine (see Degreaser)~~  
~~Fish Cooker—Edible~~

Fish Reduction

\_\_\_Cooker

\_\_\_Fish Reduction—Digester, Evaporator and Acidulation Tank

\_\_\_Fish Reduction—Dryer

\_\_\_Fish Reduction—Meal Handling

\_\_\_Fish Rendering - Presses, Centrifuges, Separators, Tank, etc.

Fittings (see Fugitive Emission Sources)

Flare -

\_\_\_Digester Gas or Landfill Gas from Non-Hazardous Waste Landfill

\_\_\_Flare—Landfill Gas from Hazardous Waste Landfill

\_\_\_Flare—Refinery, Non-Emergency

Flexographic Printing (see Printing)

Flow Coater, Dip Tank and Roller Coater

Fluidized Catalytic Cracking Unit

Foundry Sand Mold - Cold Cure Process

Fryer - Deep Fat

Fugitive Emission Sources at Natural Gas Plants and Oil and Gas Production Fields

\_\_\_Compressors, Centrifugal Type

\_\_\_Compressors Rotary Type

\_\_\_Pressure Relief Valves

\_\_\_Pumps - In Heavy Liquid Service

\_\_\_Pumps - In Light Liquid Service

\_\_\_Sampling Connections

\_\_\_Valves, Fittings, Diaphragms, Hatches, Sight-Glasses, Open-Ended Pipes and Meters in VOC Service

Fugitive Emission Sources at Organic Liquid Bulk Loading Facilities

\_\_\_Compressors, Centrifugal Type

\_\_\_Compressors Rotary Type

\_\_\_Connectors in Gas, Vapor or Light Liquid VOC Service

\_\_\_Open-Ended Valves and Pipes

\_\_\_Pressure Relief Valves

\_\_\_Process Valves – Gate, Globe and Ball

\_\_\_Pumps - In Heavy Liquid Service

\_\_\_Pumps - In Light Liquid Service

\_\_\_Sampling Connections

Fugitive Emission Sources, Other Facilities

\_\_\_Compressors, Fittings, Open-Ended Pipes, Pressure Relief Devices, Valves, Pumps, Sampling Connections, Diaphragms, Hatches, Sight Glasses and Meters in VOC Service

Fuming Sulfuric Acid Storage Tank (see Storage Tank – Fuming Sulfuric Acid)

## G

Galvanizing Furnace -

\_\_\_Batch Operations

\_\_\_Galvanizing Furnace—Continuous Sheet Metal Operations

\_\_\_Galvanizing Furnace—Continuous Wire Operations

Garnetting Equipment

Gas Turbine

\_\_\_Simple Cycle

\_\_\_—Combined Cycle/Cogeneration

~~\_\_\_ Gas Turbine—Emergency~~  
~~\_\_\_ Gas Turbine—Landfill or Digester Gas Fired~~  
~~\_\_\_ Gas Turbine—Simple Cycle~~Natural Gas Fired

Glass Melting Furnace—  
Container Manufacturing  
Glass Melting Furnace—Decorator Glass  
Glass Melting Furnace—Flat Glass  
Graphic Arts (see Printing)

Greenhouse Gas

~~Green Petroleum Coke Handling (see Bulk Solid Material Handling)~~

~~Green Petroleum Coke Truck Loading or Unloading (see Bulk Solid Material Handling)~~

## H

Hatches (see Fugitive Emission Sources)

Hazardous Waste Incineration (see Incinerator—Hazardous Waste)

Heater (see Process Heater)

## I

I.C. Engine - Portable,-

~~\_\_\_ Compression Ignition~~

~~\_\_\_ I.C. Engine—Portable, Spark Ignition~~

I.C. Engine – Stationary, Emergency

Compression Ignition, Fire Pump

Compression Ignition, Other

Spark Ignition

I.C. Engine - I.C. Engine—Stationary, Non-Emergency

< 2064 bhp

> 2064 bhp

~~\_\_\_ I.C. Engine—Landfill or Digester Gas Fired~~

Incinerator – Hazardous Waste

Incinerator - Infectious Waste

Incinerator - Non-Infectious, Non-Hazardous Waste

Ink Jet Printing

Iron Melting Furnace

~~\_\_\_—Cupola~~

~~\_\_\_ Iron Melting Furnace—Induction~~

~~\_\_\_ Iron Melting Furnace—Reverberatory~~

## J

Jet Engine Test Facility—

~~\_\_\_ Experimental Jet Engine, High Altitude Testing~~

~~\_\_\_ Jet Engine Test Facility—Experimental Jet Engine, Sea Level (Low Altitude) Testing~~

~~\_\_\_ Jet Engine Test Facility—Jet engine~~Engine Performance Testing

## L

Laminator with Corona Transfer

Landfill Gas Gathering System

Latex Manufacturing - Reaction

~~Lead Melting Furnace—Cupola, Secondary Melting Operations~~  
~~\_\_\_ Lead Melting Furnace—Pot or Crucible, Non-Refining Operations~~  
~~\_\_\_ Lead Melting Furnace—Pot or Crucible, Refining Operations~~  
~~\_\_\_ Lead Melting Furnace—Cupola or Reverberatory, Secondary Melting Operations~~  
Lead Oxide Manufacturing - Reaction Pot Barton Process  
~~Letterpress Printing (see Printing)~~  
Liquid Transfer and Handling—  
~~\_\_\_ Container Filling~~  
~~\_\_\_ Liquid Transfer and Handling—Marine, Loading~~  
~~\_\_\_ Liquid Transfer and Handling—Marine, Unloading~~  
~~\_\_\_ Liquid Transfer and Handling—Tank Truck and Rail Car Bulk Loading, Class A, B and C (SCAQMD's Rule 462)~~  
~~Liquid Transfer and Handling—Tank Truck and Rail Car Bulk Loading, Class B (SCAQMD's Rule 462)~~  
~~Liquid Transfer and Handling—Tank Truck and Rail Car Bulk Loading, Class C (SCAQMD's Rule 462)~~  
~~Lithographic Printing—Heatset (see Printing)~~  
~~Lithographic Printing—Non-Heatset (see Printing)~~

## M

Meat Broiler and Barbecue Oven  
Metal Forging Furnace  
Metal Heating Furnace  
Metallizing Spray Gun  
~~Meters (see Fugitive Emission Sources)~~  
Mixer or Blender—Wet  
Mixer, Blender, or Mill—  
~~\_\_\_ Dry~~  
~~\_\_\_ Wet~~

## N

~~Natural Fertilizer Handling (see Bulk Solid Material Handling)~~  
~~Natural Gas Plants (see Fugitive Emission Sources)~~  
Nitric Acid Manufacturing  
Non-Metallic Mineral Processing - Except Rock and Aggregate  
Nut Roasting—  
~~\_\_\_ Handling Equipment~~  
~~\_\_\_ Nut-Roaster~~

## O

~~Offset Printing (see Lithographic Printing)~~  
Oil and Gas Production—  
~~\_\_\_ Combined Tankage~~  
~~\_\_\_ Oil and Gas Production—Wellhead~~  
~~Oil and Gas Production Fields (see Fugitive Emission Sources)~~  
~~Oil/Water Separator (see Wastewater System)~~  
~~Open Spraying—Spray Gun~~  
~~Open-ended Valves or Lines (see Fugitive Emission Sources)~~  
~~Organic Liquid Bulk Loading Facilities (see Fugitive Emission Sources)~~

Oven (see Dryer or Oven)

**P**

Perlite Manufacturing System

~~Petroleum Coke Calciner (see Calciner—Petroleum Coke)~~

Pharmaceutical Manufacturing

~~\_\_\_ Pharmaceutical—Operations Involving Solvents~~

~~\_\_\_ Solids Handling~~

~~\_\_\_ Solids Storage Tanks~~

Phosphoric Acid - Thermal Process

Phthalic Anhydride

~~Pipe—Open Ended (see Fugitive Emission Sources)~~

Plasma Arc Metal Cutting Torch, Electrical Input Rating

Plastic or Resin Extrusion

~~Pneumatic Conveying—Except Paper and Fibers (see Bulk Solid Material Handling)~~

Polyester Resin Operations—

~~\_\_\_ Molding and Casting~~

~~\_\_\_ Polyester Resin Operations—Fiberglass Fabrication, Hand and Spray Layup~~

~~\_\_\_ Polyester Resin Operations—Fiberglass Fabrication, Panel Manufacturing~~

~~\_\_\_ Polyester Resin Operations—Fiberglass Fabrication, Pultrusion~~

~~Polyethylene Manufacturing (see Resin Manufacturing)~~

Polymeric Cellular (Foam) Product Manufacturing

~~Polypropylene Manufacturing (see Resin Manufacturing)~~

~~Polystyrene Extrusion (see Plastic or Resin Extrusion)~~

~~Polystyrene Foam Product Manufacturing (see Polymeric Cellular [Foam] Product Manufacturing)~~

~~Polystyrene Foam Product Manufacturing, Using Blowing Agent (see Polymeric Cellular [Foam] Product Manufacturing)~~

~~Polystyrene Manufacturing (see Resin Manufacturing)~~

Polyurethane Tube ManufacturingMfg.

Powder Coating Booth

Precious Metal Reclamation

~~\_\_\_ —Incineration~~

~~\_\_\_ Precious Metals Recovery—Chemical Recovery and Chemical Reactions~~

~~Pressure Relief Valve (see Fugitive Emission Sources)~~

Printing (Graphic Arts)—

~~\_\_\_ Flexographic~~

~~\_\_\_ Printing (Graphic Arts)—Letterpress~~

~~\_\_\_ Printing (Graphic Arts)—Lithographic, Heatset~~

~~\_\_\_ Printing (Graphic Arts)—Lithographic, Non-Heatset~~

~~\_\_\_ Printing (Graphic Arts)—Rotogravure or Gravure – Publication and Packaging~~

~~\_\_\_ Printing (Graphic Arts)—Screen Printing and Drying~~

~~Process Drains (see Wastewater System)~~

Process Heater—

~~\_\_\_ Non-Refinery~~

~~\_\_\_ Process Heater—Refinery~~

~~Process Valves (see Fugitive Emission Sources)~~

~~Pultrusion (see Polyester Resin Operations)~~

~~Pumps (see Fugitive Emission Sources)~~

## R

Railcar Dumper (see Bulk Solid Material Handling)  
Railcar Loading/Unloading, Liquid (see Liquid Transfer and Handling)  
Reactor with Atmospheric Vent  
Rendering—  
    \_\_\_ Crax Pressing, filtering and Centrifuging Operations  
    \_\_\_ Rendering—Evaporators, Cookers and Dryers  
    \_\_\_ Rendering—Grease and Blood Processing  
    \_\_\_ Rendering—Metal Grinding and Handling System  
    \_\_\_ Rendering—Tanks and Miscellaneous Equipment  
Resin Manufacturing  
    \_\_\_ Continuous Polystyrene Process  
    \_\_\_ Liquid-Phase, High-Density Polyethylene Slurry Process  
    \_\_\_ Liquid-Phase, Polypropylene Process  
    \_\_\_ Other Resin Manufacturing  
Rock - Aggregate Processing  
Rocket Engine Test Cell  
Rolling Mill  
Rotogravure Printing—Publication and Packaging (see Printing)  
Rubber Compounding—  
    \_\_\_ Banbury Type Mixer  
    \_\_\_ Rubber Compounding—Roll Mill

## S

~~Sampling Connections (see Fugitive Emission Sources)~~  
Sand Handling System with Shakeout and/or Muller in System  
Screen-Printing and Drying (see Printing)  
Sewage Treatment Plants  
~~Sight Glass (see Fugitive Emission Sources)~~  
Silo (see Bulk Solid Material Storage)  
Smokehouse  
Solder Leveling - Hot Oil or Hot Air  
Solid Material Handling—(see Bulk Solid Material Handling)  
Solid Material Storage—(see Bulk Solid Material Storage)  
Solid Material Unloading—Railcar Dumper (see Bulk Solid Material Handling)  
Solids Handling—Catalyst (see Catalyst Manufacturing and Regeneration)  
Solids Handling—Pharmaceutical (see Pharmaceutical Manufacturing)  
Solvent Reclamation  
Spray Booth  
    \_\_\_ Automotive, Down-Draft Type  
    \_\_\_ Other Types  
Steam Generator - Oil field Field  
Steel Melting Furnace—  
    \_\_\_ Basic Oxygen Process  
    \_\_\_ Steel Melting Furnace—Electric Arc  
    \_\_\_ Steel Melting Furnace—Induction  
    \_\_\_ Steel Melting Furnace—Open Hearth  
Storage Tank (see also Bulk Solid Material Storage)  
Storage Tank — Liquid

Asphalt

External Floating Roof, and VP <= 11 psia

Storage Tank—Fixed Roof

Storage Tank—Fuming Sulfuric Acid

Storage Tank—Grease or Tallow Storage Storage Tank—

Internal Floating Roof

Storage Tank—Liquid

Storage Tank—Spent Sulfuric Acid

Storage Tank—Underground

Sulfur Handling and Storage (see Bulk Solid Material Handling and Bulk Solid Material Storage)

Sulfur Pelletizing and Prilling

Sulfur Recovery Plant

Sulfuric Acid Storage (see Storage Tank—Liquid)

Surfactant Manufacturing

**T**

Tank Degassing

Tank - Grease or Tallow Processing

Tank Truck Loading/Unloading (see Liquid Transfer and Handling)

Tire Buffer

Tunnel Washer

**V**

Vegetable Oil Purification

Vinegar Manufacturing

**W**

Wastewater System

Wastewater System—Air Stripper

Wastewater System—Oil/Water Separator

Other Equipment

Wastewater System—Sour Water Stripping

Wax Burnoff Furnace

Wet Material Handling (see Bulk Solid Material Handling)

Wood Processing Equipment

Woodworking

Pneumatic Conveyance System

**Z**

Zinc Melting Furnace—

Crucible or Pot

Zinc Melting Furnace—Reverberatory, Non-Sweating Operations

Zinc Melting Furnace—Reverberatory or Rotary, Sweating Operations

Zinc Melting Furnace—Rotary, Sweating Operations

**ATTACHMENT C**



**SCAQMD BACT Determination**

Source Type: Major/LAER  
 Application No.: 516409  
 Equipment Category: I.C. Engine - Emergency, Compression Ignition  
 Equipment Subcategory: PM Filter  
 Date: **December 10, 2015**

**1. EQUIPMENT INFORMATION**

A. MANUFACTURER: Caterpillar		B. MODEL: C9
C. DESCRIPTION: Diesel fuel, six cylinders, turbocharged and aftercooled,		
D. FUNCTION: Drives an emergency electricity generator located at building 304		
E. SIZE/DIMENSIONS/CAPACITY: 374 BHP		
<b>COMBUSTION SOURCES</b>		
F. MAXIMUM HEAT INPUT: Gross heat input in btu per hour at the higher heating value of the fuel		
G. BURNER INFORMATION		
TYPE	INDIVIDUAL HEAT INPUT	NUMBER
Make and model of burner	Rated heat input of single burner, in btu/hr	Number of burners
Enter additional burner types, as needed, add extra rows		
H. PRIMARY FUEL: DIESEL		I. OTHER FUEL: Supplementary or standby fuels
J. OPERATING SCHEDULE: <1 HRS/DAY 1 DAYS/WEEK 26 WKS/YR		
K. EQUIPMENT INFORMATION COMMENTS: Diesel particulate filter installed		

**2. COMPANY INFORMATION**

A. COMPANY: US Gov't VA Medical Center		B. FAC ID: 014966
C. ADDRESS: 11301 Wilshire Blvd CITY: West-Lost Angeles STATE: CA ZIP: 90073		D. NAICS CODE: 8060
E. CONTACT PERSON: Robert Benkeser		F. TITLE: Director, Facilities Management
G. PHONE NO.: 310-268-4677	H. EMAIL: robert.benkeser@va.gov	

### 3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: <del>PO-NO-PC</del> NEW CONSTRUCTION
C. SCAQMD ENGINEER: Roy Olivares	
D. PERMIT INFORMATION: PC ISSUANCE DATE: <u>6/29/11</u> P/O NO.: 6/29/11 PO ISSUANCE DATE: 6/29/2011	
E. START-UP DATE: 6/29/2011	
F. OPERATIONAL TIME: Intermittent--for engine readiness test. Limited to 200 hrs/year which includes no more than 50 hours/year and 4.2 hour/month for maintenance and testing. Engine shall not be operated in idle mode for more than 240 consecutive minutes.	

### 4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (% O<sub>2</sub>, % CO<sub>2</sub>, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx+VOC	SOx	CO	PM OR PM <sub>10</sub>	INORGANIC
BACT Limit		3 g/bhp-hr		2.6 g/bhp-hr	0.15 g/bhp-hr	
Averaging Time						
Correction						

B. OTHER BACT REQUIREMENTS: The filter was required to reduce toxic risk from diesel particulate emissions, but also reduces PM10, VOC and CO.

C. BASIS OF THE BACT/LAER DETERMINATION: ~~Achieved in Practice~~Achieved in Practice

D. EMISSION INFORMATION COMMENTS: Compliance with rule 404 and Rule 1470. Engine meets applicable Tier 3 BACT limits. The values in Part A are EPA certification standards based on EPA certification test methods.

## 5. CONTROL TECHNOLOGY

A. MANUFACTURER: Clean Air Systems		B. MODEL: FCA225	
C. DESCRIPTION: Diesel Particulate Filter with hiback data logging and alarm system to automatically shut down engine or switch it to power de-rating when backpressure exceeds setting specified by manufacturer. CARB certified.			
D. SIZE/DIMENSIONS/CAPACITY: An appropriate size parameter such as rated heat input, usable volume, rated filter efficiency, and/or one more characteristic dimensions.			
E. CONTROL EQUIPMENT PERMIT INFORMATION: APPLICATION NO. Click here to enter text. PC ISSUANCE DATE: Click here to enter a date. PO NO.: Click here to enter text. PO ISSUANCE DATE: Click here to enter a date.			
F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.			
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NO <sub>x</sub>	___%	___%	___%
SO <sub>x</sub>	___%	___%	___%
CO	___%	___%	___%
PM	___%	85%	___%
PM <sub>10</sub>	___%	___%	___%
Inorganic	___%	___%	___%
G. CONTROL TECHNOLOGY COMMENTS Permit condition to regenerate PM filter after every 24 cold engine start-ups or HiBack alarm signal, whichever occurs first. For regeneration run engine until exhaust temp exceeds 572 Deg. F and normal backpressure reading. Engine exhaust temp at inlet to PM filter ≥ 572 Deg. F except during cold engine start-up, not to exceed 10 minutes.			

## 6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: <u>Certified Tier 3 engine with CARB verified DPF.</u>
B. DATE(S) OF SOURCE TEST: <u>Not applicable</u>
C. COLLECTION EFFICIENCY METHOD: The method used to determine collection efficiency of the system (e.g., EPA Method 204, mass balance), if applicable. A brief description of the collection efficiency test may be included if there is no applicable method (e.g., OVA measurements, smoke tests)
D. COLLECTION EFFICIENCY PARAMETERS: The quantitative parameters used to verify the method or procedures in Section 6(C). Examples include static pressure measurements, anemometer measurements, and mass balance results.
E. SOURCE TEST/PERFORMANCE DATA: Enter source test results for each criteria contaminant or precursor (mass emissions, concentrations or efficiencies) if they differ from the requirements previously listed. As previously requested in Section 4, identify any corrections or averaging times

F. TEST OPERATING PARAMETERS AND CONDITIONS: List any important operating conditions maintained during the source test or normal operations. Examples include, but may not be limited to, pressure differentials across control devices, feed rates, firing rates, temperatures, flow rates, or other parameters used to evaluate the level of operation of the equipment during the test or operations that may affect emissions from the equipment.
G. TEST METHODS (SPECIFY AGENCY): <u>EPA Nonroad Engine Certification Test Methods</u>
H. MONITORING AND TESTING REQUIREMENTS: <u>Every 5000 hours inspect integrity of PM filter and if necessary replace</u>
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

## 7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: <u>43902</u>	B. CCAT: Click here to enter text.	C. APPLICATION TYPE CODE: <u>10</u>	
D. RECLAIM FAC? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	E. TITLE V FAC: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	F. SOURCE TEST ID(S): <u>N/A</u>	
G. SCAQMD SOURCE SPECIFIC RULES: <u>1470, 431.2</u>			
H. HEALTH RISK FOR PERMIT UNIT:			
H1. MICR: <u>2.86 x 10<sup>-8</sup></u>	H2. MICR DATE: <u>11/24/10</u>	H3. CANCER BURDEN: <u>4.84x10<sup>-3</sup></u>	H4. CB DATE: <u>11/24/10</u>
H5: HIA: <u>N/A</u>	H6. HIA DATE: Click here to enter a date.	H7. HIC: <u>1.8x10<sup>-5</sup></u>	H8. HIC DATE: <u>11/24/10</u>



## SCAQMD BACT Determination

Source Type: Major/LAER  
 Application No.: 516708  
 Equipment Category: I.C. Engine - Emergency, Compression Ignition  
 Equipment Subcategory: PM Filter  
 Date: **December 10, 2015**

### 1. EQUIPMENT INFORMATION

A. MANUFACTURER: Cummins		B. MODEL: QSK50-g4	
C. DESCRIPTION: Diesel fuel, 16 cylinders, turbocharged and aftercooled,			
D. FUNCTION: Drives an emergency electricity generator			
E. SIZE/DIMENSIONS/CAPACITY: 2220 BHP			
<b>COMBUSTION SOURCES</b>			
F. MAXIMUM HEAT INPUT: Gross heat input in btu per hour at the higher heating value of the fuel			
G. BURNER INFORMATION			
TYPE		INDIVIDUAL HEAT INPUT	
NUMBER			
Make and model of burner		Rated heat input of single burner, in btu/hr	
Number of burners			
Enter additional burner types, as needed, add extra rows			
H. PRIMARY FUEL: DIESEL		I. OTHER FUEL: Supplementary or standby fuels	
J. OPERATING SCHEDULE: <1 HRS/DAY 1 DAYS/WEEK 26 WKS/YR			
K. EQUIPMENT INFORMATION COMMENTS: Diesel particulate filter installed			

### 2. COMPANY INFORMATION

A. COMPANY: Los Angeles County Sheriff's Department		B. FAC ID: 068181	
C. ADDRESS: 28380 The Old Road CITY: Saugus STATE: CA ZIP: 91350		D. NAICS CODE: <u>92214</u>	
E. CONTACT PERSON: Daniel Maloney		F. TITLE: Crafts Operations Manager	
G. PHONE NO.: 661-295-8025		H. EMAIL: E-mail address of contact person	

### 3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: <del>PO-NO-PC</del> NEW CONSTRUCTION
C. SCAQMD ENGINEER: Roy Olivares	
D. PERMIT INFORMATION: PC ISSUANCE DATE: <u>11/15/11</u> P/O NO.:G15795 PO ISSUANCE DATE: 11/15/2011	
E. START-UP DATE: 11/15/2011	
F. OPERATIONAL TIME: Intermittent--for engine readiness test. Limited to 200 hrs/year which includes no more than 50 hours/year and 4.2 hour/month for maintenance and testing.	

### 4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (%O<sub>2</sub>, %CO<sub>2</sub>, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx+VOC	SOx	CO	PM OR PM <sub>10</sub>	INORGANIC
BACT Limit		4.8 g/bhp-hr		2.6 g/bhp-hr	0.15 g/bhp-hr	
Averaging Time						
Correction						

B. OTHER BACT REQUIREMENTS: The filter was required to reduce toxic risk from diesel particulate emissions, but also reduces PM10, VOC and CO.

C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice

D. EMISSION INFORMATION COMMENTS: Compliance with rule 404 and Rule 1470. Engine meets applicable Tier 2 BACT limits. The values in Part A are EPA certification standards based on EPA certification test methods.

## 5. CONTROL TECHNOLOGY

A. MANUFACTURER: Johnson Matthey		B. MODEL: CRT(+) <sub>12-C-BIEO-CS-24-RT</sub>	
C. DESCRIPTION: Diesel Particulate Filter with CRTDM diagnostic module, data logging and alarm system to automatically shut down engine or switch it to power de-rating when backpressure exceeds setting specified by manufacturer. CARB certified.			
D. SIZE/DIMENSIONS/CAPACITY: An appropriate size parameter such as rated heat input, usable volume, rated filter efficiency, and/or one more characteristic dimensions.			
E. CONTROL EQUIPMENT PERMIT INFORMATION: APPLICATION NO. Click here to enter text. PC ISSUANCE DATE: Click here to enter a date. PO NO.: Click here to enter text. PO ISSUANCE DATE: Click here to enter a date.			
F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.			
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NO <sub>x</sub>	___%	___%	___%
SO <sub>x</sub>	___%	___%	___%
CO	___%	___%	___%
PM	___%	85%	___%
PM <sub>10</sub>	___%	___%	___%
Inorganic	___%	___%	___%
G. CONTROL TECHNOLOGY COMMENTS Permit condition to regenerate PM filter whenever warning signal is received from alarm system. For regeneration run engine until exhaust temp exceeds 464 Deg. F and normal backpressure reading. Engine exhaust temp at inlet to PM filter $\geq$ 464 Deg. F except during cold engine start-up.			

## 6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: Certified Tier 2 engine with CARB verified DPF.
B. DATE(S) OF SOURCE TEST: <u>Not applicable</u>
C. COLLECTION EFFICIENCY METHOD: The method used to determine collection efficiency of the system (e.g., EPA Method 204, mass balance), if applicable. A brief description of the collection efficiency test may be included if there is no applicable method (e.g., OVA measurements, smoke tests)
D. COLLECTION EFFICIENCY PARAMETERS: The quantitative parameters used to verify the method or procedures in Section 6(C). Examples include static pressure measurements, anemometer measurements, and mass balance results.
E. SOURCE TEST/PERFORMANCE DATA: Enter source test results for each criteria contaminant or precursor (mass emissions, concentrations or efficiencies) if they differ from the requirements previously listed. As previously requested in Section 4, identify any corrections or averaging times

F. TEST OPERATING PARAMETERS AND CONDITIONS: List any important operating conditions maintained during the source test or normal operations. Examples include, but may not be limited to, pressure differentials across control devices, feed rates, firing rates, temperatures, flow rates, or other parameters used to evaluate the level of operation of the equipment during the test or operations that may affect emissions from the equipment.
G. TEST METHODS (SPECIFY AGENCY): <u>EPA Nonroad Engine Certification Test Methods</u>
I. MONITORING AND TESTING REQUIREMENTS: Every six months inspect integrity of PM filter and if necessary replace. Include any monitoring or testing requirements and their frequency that will be enforced to maintain emission levels reported for the BACT Determination.
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

## 7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: <u>43902</u>	B. CCAT: Click here to enter text.	C. APPLICATION TYPE CODE: <u>10</u>	
D. RECLAIM FAC? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	E. TITLE V FAC: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	F. SOURCE TEST ID(S): <u>N/A</u>	
G. SCAQMD SOURCE SPECIFIC RULES: <u>1470, 431.2</u>			
H. HEALTH RISK FOR PERMIT UNIT:			
H1. MICR: <u>6.3x10-8</u>	H2. MICR DATE: <u>6/23/11</u>	H3. CANCER BURDEN: <u>1.06x10-2</u>	H4. CB DATE: <u>6/23/11</u>
H5: HIA: <u>N/A</u>	H6. HIA DATE: Click here to enter a date.	H7. HIC: <u>3.95x10-5</u>	H8. HIC DATE: <u>6/23/11</u>



## SCAQMD BACT Determination

Source Type: Major/LAER  
 Application No.: 558397  
 Equipment Category: I.C. Engine - Emergency, Compression Ignition  
 Equipment Subcategory: PM Filter  
 Date: **December 10, 2015**

### 1. EQUIPMENT INFORMATION

A. MANUFACTURER: Cummins		B. MODEL: QSX15-G9	
C. DESCRIPTION: Diesel fuel, six cylinders, turbocharged and aftercooled,			
D. FUNCTION: Drives an emergency electricity generator			
E. SIZE/DIMENSIONS/CAPACITY: 755 BHP			
<b>COMBUSTION SOURCES</b>			
F. MAXIMUM HEAT INPUT: Gross heat input in btu per hour at the higher heating value of the fuel			
G. BURNER INFORMATION			
TYPE	INDIVIDUAL HEAT INPUT	NUMBER	
Make and model of burner	Rated heat input of single burner, in btu/hr	Number of burners	
Enter additional burner types, as needed, add extra rows			
H. PRIMARY FUEL: DIESEL		I. OTHER FUEL: Supplementary or standby fuels	
J. OPERATING SCHEDULE: <1 HRS/DAY 1 DAYS/WEEK 26 WKS/YR			
K. EQUIPMENT INFORMATION COMMENTS: Diesel particulate filter installed			

### 2. COMPANY INFORMATION

A. COMPANY: University of Southern California		B. FAC ID: 800265	
C. ADDRESS: McClintock W 34 <sup>th</sup> Childs Street CITY: Lost Angeles STATE: CA ZIP: 90089		D. NAICS CODE: <u>61131</u>	
E. CONTACT PERSON: Angel Burgos		F. TITLE: Environmental Manager	
G. PHONE NO.: 626-318-7475		H. EMAIL: aburgos@usc.edu	

### 3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: <del>PO-NO-PC</del> NEW CONSTRUCTION
C. SCAQMD ENGINEER: Ken Coats (Laird)	
D. PERMIT INFORMATION: PC ISSUANCE DATE: <a href="#">Click here to enter a date.</a> P/O NO.:G30438 PO ISSUANCE DATE: 3/21/2014	
E. START-UP DATE: 3/21/2014	
F. OPERATIONAL TIME: Intermittent--for engine readiness test. Limited to 200 hrs/year which includes no more than 50 hours/year and 4.2 hour/month for maintenance and testing.	

### 4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (% O<sub>2</sub>, % CO<sub>2</sub>, dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.

	VOC	NOx+VOC	SOx	CO	PM OR PM <sub>10</sub>	INORGANIC
BACT Limit		<del>3</del> 4.8 g/bhp-hr		2.6 g/bhp-hr	0.015 g/bhp-hr	
Averaging Time						
Correction						

B. OTHER BACT REQUIREMENTS: The filter was required to reduce toxic risk from diesel particulate emissions, but also reduces PM10, VOC and CO.

C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice

D. EMISSION INFORMATION COMMENTS: Compliance with rule 404 and Rule 1470. Engine meets applicable Tier 2 BACT limits. The values in Part A are EPA certification standards based on EPA certification test methods.

## 5. CONTROL TECHNOLOGY

A. MANUFACTURER: Rypos		B. MODEL: RH-410-L	
C. DESCRIPTION: Diesel Particulate Filter with hiback data logging and alarm system to automatically shut down engine or switch it to power de-rating when backpressure exceeds setting specified by manufacturer. CARB certified.			
D. SIZE/DIMENSIONS/CAPACITY: An appropriate size parameter such as rated heat input, usable volume, rated filter efficiency, and/or one more characteristic dimensions.			
E. CONTROL EQUIPMENT PERMIT INFORMATION: APPLICATION NO. Click here to enter text. PC ISSUANCE DATE: Click here to enter a date. PO NO.: Click here to enter text. PO ISSUANCE DATE: Click here to enter a date.			
F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.			
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NO <sub>x</sub>	___%	___%	___%
SO <sub>x</sub>	___%	___%	___%
CO	___%	___%	___%
PM	___%	85%	___%
PM <sub>10</sub>	___%	___%	___%
Inorganic	___%	___%	___%
G. CONTROL TECHNOLOGY COMMENTS Permit condition to regenerate PM filter after every 24 cold engine start-ups or HiBack alarm signal, whichever occurs first. For regeneration run engine until exhaust temp exceeds 572 Deg. F and normal backpressure reading. Engine exhaust temp at inlet to PM filter ≥ 572 Deg. F except during cold engine start-up, not to exceed 10 minutes.			

## 6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: Certified Tier 2 engine with CARB verified DPF.
B. DATE(S) OF SOURCE TEST: An appropriate size parameter such as rated product throughput, usable volume, and/or one more characteristic dimensions.
C. COLLECTION EFFICIENCY METHOD: The method used to determine collection efficiency of the system (e.g., EPA Method 204, mass balance), if applicable. A brief description of the collection efficiency test may be included if there is no applicable method (e.g., OVA measurements, smoke tests)
D. COLLECTION EFFICIENCY PARAMETERS: The quantitative parameters used to verify the method or procedures in Section 6(C). Examples include static pressure measurements, anemometer measurements, and mass balance results.
E. SOURCE TEST/PERFORMANCE DATA: Enter source test results for each criteria contaminant or precursor (mass emissions, concentrations or efficiencies) if they differ from the requirements previously listed. As previously requested in Section 4, identify any corrections or averaging times

F. TEST OPERATING PARAMETERS AND CONDITIONS: List any important operating conditions maintained during the source test or normal operations. Examples include, but may not be limited to, pressure differentials across control devices, feed rates, firing rates, temperatures, flow rates, or other parameters used to evaluate the level of operation of the equipment during the test or operations that may affect emissions from the equipment.
G. TEST METHODS (SPECIFY AGENCY): <u>EPA Nonroad Engine Certification Test Methods</u>
J. MONITORING AND TESTING REQUIREMENTS: Every 5000 hours inspect integrity of PM filter and if necessary replace Include any monitoring or testing requirements and their frequency that will be enforced to maintain emission levels reported for the BACT Determination.
I. DEMONSTRATION OF COMPLIANCE COMMENTS: Enter comments for additional information for Demonstration of Compliance.

## 7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: <u>43902</u>	B. CCAT: Click here to enter text.	C. APPLICATION TYPE CODE: <u>10</u>	
D. RECLAIM FAC? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	E. TITLE V FAC: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	F. SOURCE TEST ID(S): <u>N/A</u>	
G. SCAQMD SOURCE SPECIFIC RULES: <u>1470, 431.2</u>			
H. HEALTH RISK FOR PERMIT UNIT:			
H1. MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.
H5: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.



## SCAQMD BACT Determination

Source Type: Major/LAER  
 Application No.: 538706  
 Equipment Category: Flare  
 Equipment Subcategory: Oil and Gas Operations  
 Date: **December 10, 2015**

### 1. EQUIPMENT INFORMATION

A. MANUFACTURER: Flare Industries/Bekaert CEB		B. MODEL: CEB 800
C. DESCRIPTION: Enclosed ground flare with Clean Enclosed Burner		
D. FUNCTION: Process gas disposal		
E. SIZE/DIMENSIONS/CAPACITY: 24'H x 7'-9"L x 7'-9"W		
<b>COMBUSTION SOURCES</b>		
F. MAXIMUM HEAT INPUT: 27 MMBtu/hr		
G. BURNER INFORMATION		
TYPE	INDIVIDUAL HEAT INPUT	NUMBER
NIT mesh knitted metal fiber enclosed burner	Rated heat input of single burner, in btu/hr	1
Enter additional burner types, as needed, add extra rows		
H. PRIMARY FUEL: Process gas from Oil and Gas Operations		I. OTHER FUEL: natural gas
J. OPERATING SCHEDULE: 24 HRS/DAY 7 DAYS/WEEK 52 WKS/YR		
K. EQUIPMENT INFORMATION COMMENTS: Continuous pilot burner with thermocouple for flame detection. Propane storage provides fuel for pilot burner.		

### 2. COMPANY INFORMATION

A. COMPANY: Linn Operating, Inc.		B. FAC ID: 151532
C. ADDRESS: Brea-Olinda Oilfield, 2000 Tonner Canyon CITY: Brea STATE: CA ZIP: 92821		D. NAICS CODE: Click "NAICS" for link
E. CONTACT PERSON: Vince VanDelden		F. TITLE: EH&S Representative
G. PHONE NO.: 714-257-1604	H. EMAIL: <a href="mailto:vwvandelden@linenergy.com">vwvandelden@linenergy.com</a>	

### 3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: NEW CONSTRUCTION
C. SCAQMD ENGINEER: Maria Vibal	
D. PERMIT INFORMATION: PC ISSUANCE DATE: 1/8/13 P/O NO.:G34773 PO ISSUANCE DATE: 2/24/2015	
E. START-UP DATE: 3/25/2013	
F. OPERATIONAL TIME: The flare will be operational at all times for disposal of process gas from Oil and Gas Operations at the site.	

### 4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: All at 3% O <sub>2</sub> , one hour averaging time.						
	<b>VOC</b>	<b>NOx</b>	<b>SOx</b>	<b>CO</b>	<b>PM OR PM<sub>10</sub></b>	<b>INORGANIC</b>
BACT Limit	10 ppmv	15 ppmv		10 ppmv		
Averaging Time	<u>1 HR</u>	<u>1 HR</u>		<u>1 HR</u>		
Correction	<u>3% O<sub>2</sub></u>	<u>3% O<sub>2</sub></u>		<u>3% O<sub>2</sub></u>		
B. OTHER BACT REQUIREMENTS: Concise description of the BACT requirements for each regulated contaminant from the equipment, other than the requirements list in Section 4(A).						
C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice						
D. EMISSION INFORMATION COMMENTS: Similar flare model CEB 500, 17 MMBtu/hr operating at Oil and Gas operations in Santa Barbara APCD has been included in CARB BACT Clearinghouse with same emission limits. 99.9+% destruction for VOC and BTEX.						

## 5. CONTROL TECHNOLOGY

A. MANUFACTURER: Manufacturer of the equipment		B. MODEL: Model name and number	
C. DESCRIPTION: Additional description of the operation and functions of the control equipment.			
D. SIZE/DIMENSIONS/CAPACITY: An appropriate size parameter such as rated heat input, usable volume, rated filter efficiency, and/or one more characteristic dimensions.			
E. CONTROL EQUIPMENT PERMIT INFORMATION: APPLICATION NO. Click here to enter text. PC ISSUANCE DATE: Click here to enter a date. PO NO.: Click here to enter text. PO ISSUANCE DATE: Click here to enter a date.			
F. REQUIRED CONTROL EFFICIENCIES: Minimum efficiencies of the system control equipment as required by permit, or the most stringent rule requirement. The control or destruction efficiency is determined across the control device (e.g. inlet-outlet). Collection or capture efficiency is based at each point of contaminant collection in the system. Enter each contaminant that applies. Add rows as needed.			
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	<del>___</del> 99.9%	___%
NO <sub>x</sub>	___%	___%	___%
SO <sub>x</sub>	___%	___%	___%
CO	___%	___%	___%
PM	___%	___%	___%
PM <sub>10</sub>	___%	___%	___%
Inorganic	___%	___%	___%
G. CONTROL TECHNOLOGY COMMENTS Enter comments for additional information regarding Control Technology.			

## 6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: <u>Source Test</u>
B. DATE(S) OF SOURCE TEST: <u>3/25-26/13 &amp; 4/19/13</u>
C. COLLECTION EFFICIENCY METHOD: <u>N/A</u>
D. COLLECTION EFFICIENCY PARAMETERS: <u>N/A</u>
E. SOURCE TEST/PERFORMANCE DATA: NO <sub>x</sub> = 9.87ppmvd; CO=6.15ppmvd; VOC=3.93ppmvd, all at 3% O <sub>2</sub>
F. TEST OPERATING PARAMETERS AND CONDITIONS: Fired on process gas @ approx. 21.73 MMBtu/hr, <u>Process Gas HHV 913 Btu/scf</u>
G. TEST METHODS (SPECIFY AGENCY): ASTM D-1945 & D-3588; SCAQMD 25.3, 10.1, 100.1, 307, 5.1, 4.1, 2.1; CARB 410
K. MONITORING AND TESTING REQUIREMENTS: Include any monitoring or testing requirements and their frequency that will be enforced to maintain emission levels reported for the BACT Determination.
I. DEMONSTRATION OF COMPLIANCE COMMENTS: <del>on</del>

**7. ADDITIONAL SCAQMD REFERENCE DATA**

A. BCAT: Click here to enter text.	B. CCAT: <u>08</u>	C. APPLICATION TYPE CODE: <u>10</u>	
D. RECLAIM FAC? YES <input checked="" type="checkbox"/> <input type="checkbox"/> NO <input type="checkbox"/>	E. TITLE V FAC: YES <input checked="" type="checkbox"/> <input type="checkbox"/> NO <input type="checkbox"/>	F. SOURCE TEST ID(S): <u>PR12635</u>	
G. SCAQMD SOURCE SPECIFIC RULES: <u>1148.1</u>			
H. HEALTH RISK FOR PERMIT UNIT:			
H1. MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.
H5: HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

**Best Available Control Technology Guidelines**

**Part D: BACT Guidelines for Non-Major Polluting Facilities**

October 20, 2000 (Revised June 6, 2003; December 5, 2003; July 9, 2004; December 3, 2004; July 14, 2006; October 3, 2008; ~~DRAFT October 7, 2008~~ December 2, 2016)

**Deputy Executive Officer  
Science and Technology Advancement**  
Matt Miyasato  
Chung S. Liu (Retired)

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Authors:	Alfonso Baez Jason Aspell Martin Kay, P.E. Howard Lange	Program Supervisor Senior Air Quality Engineer Program Supervisor (Retired) Air Quality Engineer II (Retired)
Reviewed By:	Barbara Baird Amir Dejbakhsh William Wong Andrew Lee	Chief Deputy Counsel Assistant Deputy Executive Officer Principal Deputy District Counsel Senior Air Quality Engineering Manager

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:            Abrasive Blasting – Enclosed

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse; or Cartridge Dust Collector (07-11-97)	

\* Means those facilities that are ~~minor not major polluting~~ minor facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Absorption Chiller

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All		≤ 20 ppmv dry corrected to 3% O <sub>2</sub> (10-20-2000)	Natural Gas (10-20-2000)	≤50 ppmv for firetube type, ≤ 100 ppmv for watertube type, dry corrected to 3% O <sub>2</sub> (10-20-2000)	Natural Gas (10-20-2000)	

\* Means those facilities that are ~~minor not major polluting~~ minor facilities as defined by Rule 1302 - Definitions

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10-20-2000 Rev. 0

Equipment or Process:      Air Stripper – Ground Water Treatment

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Carbon Adsorber, Thermal Oxidizer, or Catalytic Oxidizer (10-20-2000)					

\* Means those facilities that are minor ~~not major polluting~~ facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process: Aluminum Melting Furnace

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Crucible or Pot		Natural Gas (07-11-97)	Natural Gas (07-11-97)		Natural Gas with Ingots or Non-contaminated Scrap Charge, or Baghouse (10-20-2000)	
Reverberatory, Non-Sweating < 5 MM BTU/HR		Natural Gas (1990)	Natural Gas (1990)		Same as above. (10-20-2000)	
Reverberatory, Non-Sweating ≥ 5 MM BTU/HR		Natural Gas with Low NOx Burner ≤ 60 ppmvd @ 3% O <sub>2</sub> (10-20-2000)	Natural Gas (1990)		Same as above. (10-20-2000)	
Reverberatory or Rotary, Sweating < 5 MM BTU/HR	Afterburner (≥ 0.3 sec. Retention Time at ≥ 1400° F) or Secondary Combustion Chamber (1990)	Natural Gas (1990)	Natural Gas (1990)		Natural Gas with Baghouse and: - Afterburner (≥ 0.3 sec. Retention Time at ≥ 1400° F); or - Secondary Combustion Chamber (1990)	
Reverberatory or Rotary, Sweating ≥ 5 MM BTU/HR	Same as Above (1990)	Natural Gas with Low NOx Burner ≤ 60 ppmvd @ 3% O <sub>2</sub> (10-20-2000)	Natural Gas (1990)		Same as above. (1990)	

Note: Some of this equipment may also subject to 40 CFR 63, Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

\* Means those facilities that are minor not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Ammonium Bisulfate and Thiosulfate Production

Rating/Size	Criteria Pollutants					
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
All					Packed Column Scrubber with Heat Exchanger and Mist Eliminator (1990)	Packed Column Scrubber for NH <sub>3</sub> (1990)

\* Means those facilities that are ~~minor not major polluting~~ facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Asbestos Machining Equipment

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Air Cleaning Equipment (40 CFR Part 61 Subpart M) (07-11-97)	

\* Means those facilities that are minor ~~not major polluting~~ facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Asphalt Batch Plant

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
All		Natural Gas with Low NOx Burner ≤ 36 ppmvd @ 3% O <sub>2</sub> (10-20-2000)			Baghouse (1990)	

\* Means those facilities that are ~~minor not major polluting~~ minor facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Asphalt Roofing Line

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All		Natural Gas (1990)	Natural Gas (1990)		Natural Gas with High Velocity Filter and Mist Eliminator (1990)	

\* Means those facilities that are ~~minor not major polluting~~ facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:            Asphaltic Day Tanker

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Fiberglass or Steel Wool Filter (07-11-97)	

\* Means those facilities that are ~~minor not major polluting~~ minor facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:     Auto Body Shredder

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse with Water Sprays in Hammermill (1988)	

\* Means those facilities that are minor ~~not major polluting~~ facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Ball Mill

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse (07-11-97)	

\* Means those facilities that are ~~minor not major polluting~~ minor facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Beryllium Machining Equipment

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					High Efficiency Particulate Air Filter and Compliance with 40CFR Part 61, Subpart D (1988)	

\* Means those facilities that are minor ~~not major polluting~~ facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0  
 10-03-2008 Rev. 1  
~~XX10-0XX7~~ 12-02-2016 Rev. 2

Equipment or Process:      Boiler

Subcategory/Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub> <sup>1)</sup>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Natural Gas or Propane Fired, <u>≥ 2 and &lt; 20</u> MM Btu/HR		<u>Compliance with SCAQMD Rules 1146 or 1146.1 ≤ 912 ppmv dry d corrected to 3% O<sub>2</sub><sup>2)</sup></u> <del>(10-20-2000)(10-XX07-20156)</del> <u>(12-02-2016)</u>	Natural Gas (10-20-2000)	≤50 ppmvd for firetube type, ≤ 100 ppmvd for watertube type, dry-corrected to 3% O <sub>2</sub> (04-10-98)	Natural Gas (04-10-98)	
<u>Propane Fired, &gt; 2 and &lt; 20</u> MMBtu/HR		<u>≤ 12 ppmvd corrected to 3% O<sub>2</sub><sup>2)</sup></u> <u>(10-20-2000)</u>		<u>≤50 ppmvd for firetube type, ≤ 100 ppmvd for watertube type, corrected to 3% O<sub>2</sub></u> <u>(04-10-98)</u>		
Natural Gas or Propane Fired, <u>≥ 20 and &lt; 75</u> MM Btu/HR		<u>With Low-NO<sub>x</sub> Burner: ≤ 9 ppmv dry corrected to 3% O<sub>2</sub></u> <u>With Add-On Controls: ≤ 7 ppmv dry corrected to 3% O<sub>2</sub></u> <u>(10-20-2000)</u>	Natural Gas (10-20-2000)	Same as above. (04-10-98)	Natural Gas (04-10-98)	<u>With Add-On Controls:</u> <u>≤ 5 ppmvd NH<sub>3</sub>, corrected to 3% O<sub>2</sub></u>  <u>≤ 1 ppmvd ozone, corrected to 3% O<sub>2</sub></u> <u>(10-20-2000)</u>
<u>Natural Gas or Propane Fired, ≥ 75</u> MM Btu/HR		<u>Compliance with SCAQMD ≤ 5 ppmv dry corrected to 3%</u>	<u>Natural Gas (10-20-2000)</u>	<u>Same as above. (04-10-98)</u>	<u>Natural Gas (04-10-98)</u>	<u>With Add-On Controls:</u> <u>≤ 5 ppmvd NH<sub>3</sub>,</u>

\* Means those facilities that are minor ~~not major polluting~~ facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

Subcategory/Rating/ Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub> <sup>1)</sup>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
		<del>O<sub>2</sub> Rule 1146 (X-10-XX07-20156)(12-02-2016)</del>				corrected to 3% O <sub>2</sub>  ≤ 1 ppmvd ozone, corrected to 3% O <sub>2</sub> (10-20-2000)

(Continued on next page)

Oil Fired <sup>3)</sup>		<u>Compliance with SCAQMD Rule 1146 or 1146.1 (10-20-2000)</u>	<u>Fuel Sulfur Content ≤ 0.05% by Weight (10-20-2000) or 0.0015% by weight if purchased after May 31, 2004 (10-03-2008)</u>	≤ 50 ppmvd for firetube type ≤ 100 ppmvd for watertube type, dry corrected to 3% O <sub>2</sub> (04-10-98)		
<u>Atmospheric Unit, ≥ 2 and ≤ 10 MMBtu/HR</u>		<u>Compliance with ≤ 12 ppmvd dry corrected to 3% O<sub>2</sub> SCAQMD Rules 1146 and 1146.1 (REVISION DATE <del>10-07-2016</del>) (12-02-2016)</u>		<u>Compliance with SCAQMD Rules 1146 and 1146.1 (REVISION DATE <del>10-07-2016</del>) (12-02-2016)</u>		
<u>Landfill or Digester Gas Fired, &lt; 75 MMBTU/HR</u>		<u>≤ 30 <del>25</del> ppmvd at 3% O<sub>2</sub> dry. Compliance with SCAQMD Rules 1146 and 1146.1 (REVISION DATE <del>10-07-2016</del>) (04-10-98) (12-02-2016)</u>		≤ 100 ppmvd at 3% O <sub>2</sub> dry. (04-10-98)	≤ 0.1 gr/scf at 12% CO <sub>2</sub> (Rule 409) (04-10-98)	

\* Means those facilities that are minor ~~not major polluting~~ facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

Subcategory/Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub> <sup>1)</sup>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Digester Gas Fired, < 75 MMBTU/Hr		15 ppmvd at 3% O <sub>2</sub> dry. Compliance with SCAQMD Rules 1146 and 1146.1 <del>(REVISION DATE 10-07-2016)</del> (12-02-2016)		≤ 100 ppmvd at 3% O <sub>2</sub> dry. (04-10-98)	≤ 0.1 gr/scf at 12% CO <sub>2</sub> (Rule 409) (04-10-98)	

- 1) Rules 1146 and 1146.1 require that boilers rated >2 and <75 MMBtu/hr meet 9 ppm NO<sub>x</sub> beginning 1/1/2012 for some categories, that natural gas fired boilers rated at >75 MMBtu/hr meet 5 ppm by 1/1/2015 (except boilers at schools and universities), that natural draft boilers rated >2 and ≤10 MMBtu/hr with unsealed combustion chambers meet 12 ppm by 1/1/2014, and that boilers firing landfill or digester gas meet 25 or 15 ppm, respectively, by 1/1/15 (all ppm are dry, corrected to 3% O<sub>2</sub>). Electric utility boilers, refinery boilers rated >40 MMBtu/hr and sulfur plant reaction boilers rated ≥5 MMBtu/hr are excluded; and there are exceptions for low-use boilers and boilers that met a 12-ppm limit prior to 9/5/08. Applicants are advised to review these rules for further details.
- 2) A higher NO<sub>x</sub> limit may be allowed for facilities required to have a standby fuel, where use of a clean standby fuel is not possible and an ultra low-NO<sub>x</sub> burner is not available.
- 3) See Clean Fuels Policy in Part C of the BACT Guidelines. Oil firing is only allowed as a standby fuel, and where use of a clean standby fuel is not possible.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Brakeshoe Debonder

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Afterburner or Secondary Combustion Chamber with $\geq 0.3$ Second Retention Time at $\geq 1,400^{\circ}\text{F}$ Achieved within 15 Minutes of Primary Burner Ignition (07-11-97)	Natural Gas (07-11-97)	Natural Gas (07-11-97)		Natural Gas (07-11-97)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process: Brass Melting Furnace

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Crucible, ≤ 300 Lbs/Hr Process Rate		Natural Gas (1990)	Natural Gas (1990)		Natural Gas, Charge Clean Metal Only and Maintain Slag Cover Over Entire Melt Surface (1990)	
Crucible, > 300 Lbs/Hr Process Rate		Low-NOx Burner (10-20-2000)	Natural Gas (1990)		Natural Gas, with Baghouse (1990)	
Reverberatory or Rotary, Non- Sweating		Natural Gas and Low NOx Burner (10-20-2000)	Natural Gas (1990)		Natural Gas with Baghouse (1990)	
Reverberatory or Rotary, Sweating	Afterburner (≥ 0.3 Second Retention Time at ≥ 1400 °F) (1990)	Natural Gas with Low NOx Burner (1990)	Natural Gas (1990)	Afterburner (≥ 0.3 Second Retention Time at ≥ 1400 °F) (1990)	Natural Gas with Baghouse (1990)	
Tilting Induction, ≤ 300 Lbs/Hr Process Rate					Charge Clean Metal Only and Slag Cover Maintained Over Entire Melt Surface (1988)	
Tilting Induction, > 300 Lbs/Hr Process Rate					Baghouse (7-11-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:                      Bulk Solid Material Handling – Other

Subcategory <sup>3</sup> /Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Animal Feed Mfg. – Dry Material Handling					Baghouse (07-11-97)	
Clay, Ceramics and Refractories Handling (Except Mixing)					Baghouse (1988)	
Coal, Coke and Sulfur Handling					Compliance with SCAQMD Rule 1158 (10-20-2000)	
Feed and Grain Handling					Baghouse (1988)	
Natural Fertilizer Handling <sup>1)</sup>					Baghouse or Equivalent Material Moisture (07-11-97)	
Paper and Fiber Handling					High Efficiency Cyclone with Baghouse (10-20-2000)	
Pneumatic Conveying, Except Paper and Fiber					Baghouse (1988)	
Railcar Dumper					Enclosed Dump Station and Water Spray for Wet Material (1988)	
Other Dry Materials Handling <sup>2)</sup>					Enclosed Conveyors and Baghouse (7-11-97)	
Other Wet Materials Handling <sup>2)</sup>					Water Spray or Adequate Material Moisture (1988)	

1. Includes conveying, size reduction, classification and packaging.
2. Includes conveying, size reduction and classification.
3. Also see Catalyst Manufacturing, Coffee Roasting, Non-Metallic Mineral Processing, Nut Roasting, Rendering, Pharmaceutical Operations, and Rock-Aggregate Processing for other bulk solid material handling.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process:            Bulk Solid Material Ship Loading

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Non-White Commodities					Enclosed Conveyor and - Water Spray; or - Adequate Material Moisture (1988)	
White Commodities					Enclosed Conveyor and Baghouse Venting Ship Holds and Transfer Points (07-11-97)	

Notes:

1. Non-White commodities include coal, copper concentrate, sulfur, iron slag, iron ore, iron pellets, green petroleum coke and other wet commodities
2. White commodities include soda ash, salt cake, potash and other dry commodities.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process: Bulk Solid Material Ship Unloading

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Bulk Cement		Shore Utility Power (1988)	Shore Utility Power (1988)		Enclosed, Self-Unloading Ship (1988)	
Other Bulk Solid Materials					Enclosed Hold and Baghouse; or Material Moisture Equivalent to an Enclosed Hold and Baghouse (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process:     Bulk Solid Material Storage

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM10	
Coal, Petroleum Coke, Sulfur					Enclosed Storage in Compliance with SCAQMD Rule 1158 (10-20-2000)	
Other Non-White Commodities					Water Spray and Chemical Additives or Charged Fog Spray (1988)	
White Commodities					Enclosed Storage and Baghouse (1988)	
Storage Tanks and Silos					Baghouse or Filtered Vent for Dry Material; Water Spray or Adequate Moisture for Wet Material (07-11-97)	
Other Open Storage					Water with Chemical Additives (1988)	

Notes:

1. Other non-white commodities include copper concentrate, iron slag, iron ore, and iron pellets.
2. White commodities include cement, gypsum, lime, soda ash, borax and flour.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Burnoff or Burnout Furnace (Excluding Wax Furnace)

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Afterburner or Secondary Combustion Chamber with ≥0.3 Second Retention Time at ≥1,400°F Achieved within 15 Minutes of Primary Burner Ignition (07-11-97)	Natural Gas (07-11-97)	Natural Gas (07-11-97)		Natural Gas (07-11-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process:        Calciner

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Petroleum Coke	Afterburner (≥ 0.3 Second Retention Time at ≥ 1400 °F) (1988)	44 ppmv, Dry, Corrected to 3% O <sub>2</sub> (1988)	Natural Gas with Flue Gas Desulfurization (> 90% Removal Efficiency) (1988)	Afterburner (≥ 0.3 Second Retention Time at ≥ 1400 °F) (1988)	0.005 gr/dscf Corrected to 3% O <sub>2</sub> (1988)	
Other		45 ppmv, Dry, Corrected to 3% O <sub>2</sub> (1988)	Natural Gas (1988)		Natural Gas with Baghouse (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process: Carpet Beating and Shearing

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process: Catalyst Manufacturing and Regeneration

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Calcining		Three-Stage NO <sub>x</sub> Reduction Scrubber (1990)	Natural Gas (1990)		Baghouse (10-20-2000)	
Reactor		NO <sub>x</sub> Scrubber (07-11-97)				
Rotary or Spray Dryer					Baghouse (07-11-97)	
Regeneration, Hydrocarbon Removal	Flare, Firebox, or Afterburner (≥ 0.3 Second Retention Time at ≥ 1,400 °F) (07-11-97)					
Catalyst Solids Handling					Baghouse (07-11-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process: Charbroiler, Chain-driven (conveyorized)

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Catalytic Oxidizer (12-12-97)				Catalytic Oxidizer (12-12-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process:            Chemical Milling Tanks

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Aluminum and Magnesium <sup>1</sup>						
Nickel Alloys, Stainless Steel and Titanium		Packed Chemical Scrubber (10-20-2000)			High Efficiency Mist Eliminator (10-20-2000)	

1) At the date of the last revision for this category, there was no Achieved In Practice BACT Determination for this subcategory. Technologically Feasible options listed in historic SCAQMD BACT Guidelines for this subcategory require cost effective analyses before they can be listed in these current Guidelines.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process:        Chip Dryer

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1400°F) (10-20-2000)	Natural Gas with Low NO <sub>x</sub> Burner (10-20-2000)	Natural Gas (1989)		Natural Gas with: - Baghouse and Limestone Filter Coating; or - Baghouse and Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1400°F) (1989)	

Note: This equipment may also subject to 40 CFR 63, Subpart RRR – National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process:     Chrome Plating

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Decorative Chrome					Packed Scrubber and Mist Suppressant (1988) Compliance with SCAQMD Rule 1469 (10-20-2000)	
Hard Chrome					Packed Scrubber and Mist Suppressant (1988) Compliance with SCAQMD Rule 1469 (10-20-2000)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:    Circuit Board Etcher

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Batch Immersion Type, Subtractive Process					Packed Water Scrubber and Etchant Solution Temperature Control (10-20-2000)	
Conveyorized Spray Type, Subtractive Process					Packed Water Scrubber and Etchant Solution Temperature Control (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Cleaning Compound Blender

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse or Wet Centrifugal Collector or Cyclone (07-11-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Coffee Roasting

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Roaster, < 110,000 BTU/Hr		Natural Gas (1988)	Natural Gas (1988)		Natural Gas (1988)	
Roaster, ≥ 110,000 BTU/Hr	Afterburner (0.3 Sec Retention Time at 1200 °F) (1990)	Natural Gas, with Heat Recovery on Afterburner Exhaust to Reduce Fuel Consumption (10-20-2000)	Natural Gas (1990)		Natural Gas with Cyclone and Afterburner (≥ 0.3 Second Retention Time at ≥ 1200 °F) (1990)	
Handling Equipment, < 1,590 Lbs/Hr All <sup>1</sup>						
Handling Equipment, ≥ 1,590 Lbs/Hr All					Cyclone (1990)	

1) At the date of the last revision for this category, there was no Achieved In Practice BACT Determination for this subcategory. Technologically Feasible options listed in historic SCAQMD BACT Guidelines for this subcategory require cost effective analyses before they can be listed in these current Guidelines.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

12-5-2003 Rev. 0

Equipment or Process: Composting

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic (Ammonia)
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Co-composting <sup>a)</sup>	Compliance with <u>SCAQMD</u> Rule 1133.2 <sup>b)</sup> (12-5-2003)					Compliance with <u>SCAQMD</u> Rule 1133.2 <sup>b)</sup> (12-5-2003)

a) Co-composting is composting where biosolids and/or manure are mixed with bulking agents to produce compost.

b) Not required for design capacity <1,000 tons per year.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process:      Concrete Batch Plant

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Central Mixed, < 5 Cubic Yards/Batch					Water Spray (1988)	
Central Mixed, ≥ 5 Cubic Yards/Batch					Baghouse for Cement Handling and Adequate Moisture in Aggregate (1988)	
Transit-Mixed					Baghouse Venting the Cement Weigh Hopper and the Mixer Truck Loading Station; and Adequate Aggregate Moisture (07-11-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process:     Concrete Blocks and Forms Manufacturing

	<b>Criteria Pollutants</b>					
<b>Rating/Size</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>Inorganic</b>
All					Baghouse (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process: Cotton Gin

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Rotary Drum Filter and Cyclone (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process:      Crematory

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
All	Secondary Combustion Chamber, ≥ 1500 °F (1990)	Natural Gas (1990)	Natural Gas (1990)		Natural Gas with Secondary Combustion Chamber, ≥ 1500 °F (1990)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process:            Degreaser – Other

Rating/Size	Criteria Pollutants					
	VOC/ODC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
Batch-Loaded or Conveyorized Cold Cleaners	Use of solvents containing 50 grams of VOC or less per liter of material (12-12-97)					
Film Cleaning Machine	Carbon Adsorber (10-20-2000)					
Solvent Spraying <sup>1)</sup> , 1,1,1 Trichloroethane	Carbon Adsorber (1990) and Compliance with 40 CFR 63, Subpart T – National Emission Standards for Halogenated Solvent Cleaning (10-20-2000)					
Solvent Spraying <sup>1)</sup> , Other VOCs	Compliance with <u>SCAQMD</u> Rule 1171 (10-20-2000)					

Note: Use of certain halogenated solvents is also subject to 40 CFR 63, Subpart T – National Emission Standards for Halogenated Solvent Cleaning

1) This subcategory includes solvent spray booths and remote reservoir cleaners.

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## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

### Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\*

10-20-2000 Rev. 0

Equipment or Process:           Degreaser –Vapor Cleaning, Volatile Organic Compounds

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Batch	<p>Tier 1: Use of an automatically operated airtight or airless cleaning system that emits no more than <math>[4.3 \times V^{0.6}]</math> lb/month of VOCs, where V is the cleaning chamber volume in cubic feet. Use of alternative equipment is allowed provided such equipment is subject to the same emissions limitation (lb/month of VOCs) as calculated above.</p> <p>Tier 2: Use of equipment that does not exceed <math>[22 \times A]</math> lb/month of VOCs, where A is the solvent surface area in square feet, provided it is technically infeasible to use Tier 1 equipment because of part deformation, inherent part pressure, part type or geometry, soil type or amount, cleanliness sensitivity, or other reasons. (4-10-98)</p>					
Conveyorized	<p>Use of a conveyorized vapor degreaser that does not exceed <math>[17 \times A]</math> lb/month of VOCs, where, A is the solvent surface area in square feet (04-10-98)</p>					

Notes:

1. Use of certain halogenated solvents is also subject to 40 CFR 63, Subpart T – National Emission Standards for Halogenated Solvent Cleaning
2. Use of VOCs not subject to the above-described NESHAP is also subject to SCAQMD Rule 1122.
3. Any permit applicant may demonstrate that the Tier 1 BACT may not be technologically feasible for the applicant’s permit unit. For batch-loaded vapor degreasing equipment, SCAQMD will consider the following three factors taken together as a whole, as well as any other technical factors presented by the applicant: a) Part Type and Geometry – In that different parts and part geometries lend themselves to different cleaning methods that may be acceptable to achieve proper cleanliness, SCAQMD will consider information presented by the applicant regarding the type and geometry of the part(s) proposed to be cleaned in determining what cleaning technologies are available for the part(s) in question; b) Soil Type and Amount – In that different types and quantities of soils being cleaned from parts lend themselves to different cleaning methods, SCAQMD will consider information presented by the applicant regarding the soil type and soil quantity of the part(s) proposed to be cleaned in determining what cleaning technologies are available for the part(s) in question; c) Cleanliness Sensitivity – In that (i) different parts have different levels of sensitivity to cleanliness (e.g., medical and high technology device parts may need to achieve an extremely high level of cleanliness, whereas standard plumbing supplies may tolerate a lower level of cleanliness), and (ii) the integrity of certain parts may be compromised by exposure to the reduced pressure environment of airless cleaning systems; SCAQMD will consider information presented by the applicant regarding the cleanliness sensitivity of the part(s) proposed to be cleaned in determining what cleaning technologies are available for the part(s) in question.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process:        Detergent Manufacturing

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Solids Handling					Cyclone and Baghouse (07-11-97)	
Spray Dryer		Natural Gas with Low-NO <sub>x</sub> Burner (1988)	Natural Gas (1988)		Natural Gas with: - Cyclone and Baghouse; or - Cyclone, Scrubber and Electrostatic Precipitator (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Drum Reclamation Furnace

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Afterburner (≥ 0.3 Sec. Retention time at ≥ 1400 °F) (1990)	Natural Gas (1990)	Natural Gas (1990)		Natural Gas with After- burner (> 0.3 Sec. Retention Time at ≥ 1400 °F) and Baghouse (1990)	

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10-20-2000 Rev. 0

7-9-2004 Rev. 1

Equipment or Process:        Dry Cleaning

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC/ODC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Perchloroethylene	Delisted as a VOC. See SCAQMD Rule 1421 – Control of Perchloroethylene Dry Cleaning Operations <sup>1</sup> (06-13-97)					
Petroleum Solvent <sup>2</sup>	Closed Loop, Dry-to-Dry Machine with a Refrigerated Condenser (10-20-2000) or Evaporatively Cooled Condenser (7-9-2004)					

<sup>1</sup> Rule 1421 implements the federal National Emission Standard for Hazardous Air Pollutant for Perchloroethylene Dry Cleaning Facilities (40 Code of Federal Regulations [CFR] 63.320, *et seq*) and the state Airborne Toxic Control Measure (ATCM) for Emissions of Perchloroethylene from Dry Cleaning Operations (17 California of Regulation [CCR] 93109, *et seq*).

<sup>2</sup>This Equipment may also be subject to AQMD Rule 1102 – Dry Cleaners Using Solvent Other Than Perchloroethylene.

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Equipment or Process:      Dryer – Kiln

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All		Natural Gas with Low NO <sub>x</sub> Burner (10-20-2000)	Natural Gas (1988)		Natural Gas (1988)	

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Equipment or Process:        Dryer or Oven

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Carpet Oven		80 ppmvd, corrected to 3% O <sub>2</sub> (10-20-2000)	Natural Gas (1990)		Natural Gas (1990)	
Rotary, Spray and Flash Dryers <sup>1)</sup>		Natural Gas with Low NO <sub>x</sub> Burner (10-20-2000)	Natural Gas (1990)		Natural Gas with Baghouse (1990)	
Tray, Agitated Pan, and Rotary Vacuum Dryers		Natural Gas with Low NO <sub>x</sub> Burner (10-20-2000)	Natural Gas (1990)		Natural Gas (1990)	
Tenter Frame Fabric Dryer		60 ppmvd Corrected to 3% <del>O<sub>2</sub></del> (10-20-2000)	Natural Gas (10-20-2000)		Natural Gas (10-20-2000)	
Other Dryers and Ovens – Direct and Indirect Fired		30 ppmvd corrected to 3% <del>O<sub>2</sub></del> (04-10-98)	Natural Gas (10-20-2000)		Natural Gas (10-20-2000)	

1. Dryers for foodstuff, pharmaceuticals, aggregate & chemicals.

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Equipment or Process: Electric Furnace – Pyrolyzing, Carbonizing and Graphitizing

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1400 °F) (1988)					

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Equipment or Process:       Electrical Wire Reclamation – Insulation Burn-Off Furnace

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
All	Afterburner (≥ 0.3 Second Retention Time at ≥ 1400 °F); Or Secondary Combustion Chamber (≥ 0.3 Second Retention Time at ≥ 1400 °F) (1988)	Natural Gas (1988)	Natural Gas (1988)		Natural Gas with Baghouse and: - Afterburner ((≥ 0.3 Second Retention Time at ≥ 1400 °F) or - Secondary Combustion Chamber (≥ 0.3 Second Retention Time at ≥ 1400 °F) (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process:            Ethylene Oxide Sterilization

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Aeration	Recirculation Vacuum Pump-Seal Fluid with Fluid Reservoir Vented to: Chemical Scrubber; or Afterburner (≥ 0.3 second retention time at ≥ 1,400°F); or Catalytic Afterburner (at ≥ 280°F) (07-11-97)					
Quarantine Storage	Unvented Enclosure with Internal Circulation Through Activated Carbon Impregnated with Sulfuric Acid (1989)					

Note: Ethylene Oxide Sterilization may also be Subject to 40 CFR 63, Subpart O – Emission Standards for Ethylene Oxide Sterilization Facilities.

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Equipment or Process:      Expanded Polystyrene Manufacturing Using Blowing Agent

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	For VOC Emissions: Incineration (≥ 0.3 Sec. Retention Time at ≥ 1400 °F) (1990)					

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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10-20-2000 Rev. 0

Equipment or Process: Fatty Acid – Fat Hydrolyzing and Fractionation

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Condenser or Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1300 °F) (10-20-2000)					

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10-20-2000 Rev. 0

Equipment or Process: Fatty Alcohol

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Afterburner (≥ 0.3 second retention time at ≥ 1,400°F) (07-11-97)					

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process:        Fermentation, Beer and Wine

Rating/Size	Criteria Pollutants					
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
All Closed Systems	Carbon Adsorber (10-20-2000)					
All Open Systems	Scrubber with Approved Liquid Waste Disposal (10-20-2000)					

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10-20-2000 Rev. 0

Equipment or Process:     Fiberglass Operations

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Fabrication – Hand and Spray Layup	Compliance with <u>SCAQMD</u> Rule 1162 (10-20-2000)				Airless Spray Equipment and Spray Booth with Mesh Type Filter (1988)	
Panel Manufacturing	Curing Oven, Impregnation Tables and Mixing Tanks Vented to an Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1400 °F). Storage and Holding Tanks Vented to a Carbon Adsorber (1988)	Natural Gas Fired Curing Oven, Electrically Heated Cellophane Oven and Laminating Table (1988)	Natural Gas (10-20-2000)		Natural Gas Fired Curing Ovens, Cellophane Ovens Vented to an Electrostatic Precipitator and Panel Cutting Saw Vented to Baghouse (1988)	
Pultrusion	Styrene Suppressed Resin (1988), and Compliance with <u>SCAQMD</u> Rule 1162 (10-20-2000)					

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Equipment or Process: Fish Reduction

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Cooker	Scrubber with Chlorinated Solution (≤ 20 ppmv Cl <sup>-</sup> Outlet Conc., ≥ 0.6 Sec. Retention Time and ≤ 200 °F Outlet Temp.) (1988)					
Digester, Evaporator and Acidulation Tank	Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1200 °F) (1990)				Natural Gas with Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1200 °F) (1990)	
Dryer	Scrubber with Chlorinated Solution (≤ 20 ppmv Cl <sup>-</sup> Outlet Conc., ≥ 0.6 Sec. Retention Time and ≤ 200 °F Outlet Temp.) (1990)				Natural Gas and Scrubber with Chlorinated Solution (≤ 20 ppmv Cl <sup>-</sup> Outlet Conc., ≥ 0.6 Sec. Retention Time and ≤ 200 °F Outlet Temp.) (1990)	
Meal Handling <sup>1</sup>						
Rendering – Presses, Centrifuges, Separators, Tanks, Etc.	Water Condenser and Vent to Dryer Firebox (1988)					

1) At the date of the last revision for this category, there was no Achieved In Practice BACT Determination for this subcategory. Technologically Feasible options listed in historic SCAQMD BACT Guidelines for this subcategory require cost effective analyses before they can be listed in these current Guidelines.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
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Equipment or Process:        Flare

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
<del>Digester</del> Digester Gas or Landfill Gas from Non-Hazardous Waste Landfill	Ground Level, Shrouded, ≥ 0.6 Sec. Retention Time at ≥ 1400 °F, Auto Combustion Air Control, Automatic Shutoff Gas Valve and Automatic Re-Start System (1988)	0.06 lbs/MM Btu (1988)		Ground Level, Shrouded, ≥ 0.6 Sec. Retention Time at ≥ 1400 °F, and Auto Combustion Air Control (1988)	Knockout Vessel (1988)	
Landfill Gas from Hazardous Waste Landfill	Ground Level, Shrouded, ≥ 0.6 Sec. Retention Time at ≥ 1500 °F, Auto Combustion Air Control, Automatic Shutoff Gas Valve and Automatic Re-Start System (1988)	0.06 lbs/MM Btu (1988)		Ground Level, Shrouded, ≥ 0.6 Sec. Retention Time at ≥ 1500 °F, and Auto Combustion Air Control (1988)	Knockout Vessel (1988)	

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Equipment or Process: Flow Coater, Dip Tank and Roller Coater

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
< 36 lbs/day VOC	Compliance with Regulation XI (10-20-2000)					
≥ 36 lbs/day VOC	Coating with Lower VOC Content than Required by Applicable Rules, and Emissions from Coating Area, Flash Off Area, Drying Area , and Oven Vented to Control Device Achieving ≥ 90% Overall Efficiency (1988)  Or Super <del>Clean</del> -Compliant Materials with ≤ 5% VOC by Weight (10-20-2000)					

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Equipment or Process: Foundry Sand Mold – Cold Cure Process

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All			Packed Column Scrubber with pH of Solution Maintained at a Minimum of 8.0 (1988)			

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Equipment or Process: Fryer – Deep Fat

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
< 2 MM Btu/hr	Integrated Afterburner/Oil Heater (≥ 0.3 Sec. Retention Time at ≥ 1400 °F) (10-20-2000)	Natural Gas (1990)	Natural Gas (1990)		Integrated Afterburner/Oil Heater (≥ 0.3 Sec. Retention Time at ≥ 1400 °F) (10-20-2000)	
≥ 2 MM Btu/hr	Integrated Afterburner/Oil Heater (≥ 0.3 Sec. Retention Time at ≥ 1400 °F) (10-20-2000)	Natural Gas (1990)	Natural Gas (1990)		Integrated Afterburner/Oil Heater (≥ 0.3 Sec. Retention Time at ≥ 1400 °F), and Electrostatic Precipitator or High Efficiency Mist Eliminator (10-20-2000)	

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10-20-2000 Rev. 0

12-5-2003 Rev. 1

Equipment or Process: Fugitive Emission Sources at Natural Gas Plants and Oil  
and Gas Production Fields

Subcategory/Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM10	
Compressors, Centrifugal Type	Seal System with a Higher Pressure Barrier Fluid (04-10-98); and Compliance with <u>SCAQMD</u> Rule 1173 (12-5-2003)					
Compressors, Rotary Type	Enclosed Seal System Connected to Closed Vent System (04-10-98); and Compliance with <u>SCAQMD</u> Rule 1173					
Pressure Relief Valves	Connected to Closed Vent System or Equipped with Rupture Disc if Applicable (4-10-98); and Compliance with <u>SCAQMD</u> Rule 1173 (12-5-2003)					
Pumps – In Heavy Liquid Service	Single Mechanical (4-10-1998); and Compliance with <u>SCAQMD</u> Rule 1173 (12-5-2003)					
Pumps – In Light Liquid Service	Sealless Type if Available and Compatible; or Double or Tandem Seals, and Vented to Closed Vent System (4-10-98); and Compliance with <u>SCAQMD</u> Rule 1173 (12-5-2003)					
Sampling Connections	Closed-Purge, Closed-Loop, or Closed-Vent System (4-10-98); and Compliance with <u>SCAQMD</u> Rule 1173 (12-5-2003)					
Valves, Fittings, Diaphragms, Hatches, Sight-Glasses, Open-Ended Pipes and Meters in VOC Service	Compliance with <u>SCAQMD</u> Rule 1173 (12-5-2003)					

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10-20-2000 Rev. 0

12-5-2003 Rev. 1

Equipment or Process: Fugitive Emission Sources at Organic Liquid Bulk  
 Loading Facilities

Subcategory/Rating/Size	Criteria Pollutants					
	VOC	NOx	SOx	CO	PM10	Inorganic
Compressors, Centrifugal Type	Seal System with a Higher Pressure Barrier Fluid; < 500 ppmv by USEPA Method 21 with Quarterly I&M Program <sup>1)</sup> (04-10-98)					
Compressors, Rotary Type	Enclosed Seal System Connected to Closed Vent System; < 500 ppmv by USEPA Method 21 with Quarterly I&M Program <sup>1)</sup> (04-10-98)					
Connectors <sup>2)</sup> in Gas, Vapor or Light Liquid VOC Service	< 500 ppmv by USEPA Method 21 with Quarterly I&M Program <sup>1)</sup> (04-10-98)					
Open Ended Valves and Pipes	Compliance with <u>SCAQMD</u> Rule 1173 where Applicable (10-20-2000)					
Pressure Relief Valves	Connected to Closed Vent System or Equipped with Rupture Disc if Applicable (4-10-98); and Compliance with <u>SCAQMD</u> Rule 1173 (10-20-2000)					
Process Valves – Gate, Globe and Ball	Compliance with <u>SCAQMD</u> Rule 1173, where Applicable (10-20-2000)					
Pumps – In Heavy Liquid Service	Single Mechanical; < 1000 ppmv by USEPA Method 21 with Quarterly I&M (4-10-1998)					
Pumps – In Light Liquid Service	1. Sealless Type if Available and Compatible, or 2. Double or Tandem Seals and Vented to Closed Vent System; < 1000 ppmv by USEPA Method 21 with Approved <u>SCAQMD</u> I&M; <1000 ppmv by USEPA Method 21 with Approved <u>SCAQMD</u> I&M (4-10-98)					
Sampling Connections	Closed-Purge, Closed-Loop, or Closed-Vent System (4-10-98)					

- 1) Quarterly I&M shall be consistent with SCAQMD Rule 1173 and other applicable requirements except that leaks between 500 and 1000 ppmv must be repaired within 14 days after detection.
- 2) Connectors include flanges, screwed or other joined fittings

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 12-5-2003 Rev. 1

Equipment or Process: Fugitive Emission Sources, Other Facilities

Subcategory/Rating/Size	Criteria Pollutants					
	VOC	NOx	SOx	CO	PM10	Inorganic
Compressors, Fittings, Open Ended Pipes, Pressure Relief Devices, , Valves, Pumps, Sampling Connections, Diaphragms, Hatches, Sight-Glasses and Meters in VOC Service	Compliance with Rule 1173, where Applicable by Rule (12-5-2003)					

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Equipment or Process: Galvanizing Furnace

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Batch Operations		Natural Gas with Low NOx Burner (10-20-2000)	Natural Gas (1988)		Natural Gas with Baghouse with Lime Coating (1988)	
Continuous Sheet Metal Operations		Natural Gas with Low NOx Burner (10-20-2000)	Natural Gas (1988)		Natural Gas with Packed Column Scrubber Serving the Caustic, Acid Pickling Tanks and/or Metal Preparation Tanks (1988, 2000)	
Continuous Wire Operations		Natural Gas with Low NOx Burner (10-20-2000)	Natural Gas (1988)		Natural Gas with Noncombustible Covering on Molten Metal Surface, Baghouse, and Packed Column Scrubber Serving the Metal Preparation Tanks (1988, 2000)	

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Equipment or Process:      Garnetting Equipment

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse or Rotary Drum Filter (1988)	

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10-20-2000 Rev. 0  
 12-3-2004 Rev. 1

Equipment or Process:      Gas Turbine

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Natural Gas Fired, < 3 MWe		9 ppmvd @ 15% O <sub>2</sub> (10-20-2000)		10 ppmvd @ 15% O <sub>2</sub> (10-20-2000)		9 ppmvd ammonia @ 15% O <sub>2</sub> (10-20-2000)
Natural Gas Fired, ≥ 3 MWe and < 50 MWe		2.5 ppmvd @ 15% O <sub>2</sub> x <u>efficiency (%)</u> <sup>1)</sup> 34% (6-12-98)		10 ppmvd @ 15% O <sub>2</sub> (6-12-98)		5.0 ppmvd ammonia @ 15% O <sub>2</sub> (10-20-2000)
Natural Gas Fired, ≥ 50 MWe	2.0 ppmvd (as methane) @ 15% O <sub>2</sub> , 1-hour avg. OR 0.0027 lbs/MMBtu (higher heating value) (10-20-2000)	2.5 ppmvd @ 15% O <sub>2</sub> , 1-hour rolling avg. OR 2.0 ppmvd @ 15 %O <sub>2</sub> , 3-hour rolling avg. x <u>efficiency (%)</u> <sup>1)</sup> 34% (10-20-2000)		6.0 ppmvd @ 15% O <sub>2</sub> , 3-hour rolling avg. (10-20-2000)		5.0 ppmvd ammonia @ 15% O <sub>2</sub> (10-20-2000)
Emergency		See Clean Fuels Policy in Part C of the BACT Guidelines (10-20-2000)	See Clean Fuels Policy in Part C of the BACT Guidelines (10-20-2000)		See Clean Fuels Policy in Part C of the BACT Guidelines (10-20-2000)	
Landfill or Digester Gas Fired		25 ppmv, dry, corrected to 15 %O <sub>2</sub> (1990)	Compliance with Rule 431.1 (10-20-2000)	130 ppmv, dry, corrected to 15 %O <sub>2</sub> (10-20-2000)	Fuel Gas Treatment for Particulate Removal (1990)	

Notes: 1) The turbine efficiency correction for NOx is limited to 1.0 as a minimum. The turbine efficiency is the demonstrated percent efficiency at full load (corrected to the higher heating value of the fuel) without consideration of any downstream heat recovery (12-3-2004).

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10-20-2000 Rev. 0

Equipment or Process: Glass Melting Furnace

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Decorator Glass		Natural Gas with Low NOx Burner (10-20-2000); Cullet in Raw Material Charged > 80% (1988)			Baghouse (10-20-2000)	
Flat Glass		Natural Gas with Heating Modifications: <ul style="list-style-type: none"> <li>- Excess Oxygen in Ports &lt; 5%</li> <li>- Cullet in Raw Material Charged &gt; 15%</li> <li>- Hot Spot Temperature &lt; 2,700 °F (1988)</li> </ul>	Process Modification: Sulfur Content of Batch Charged < 0.25% by Weight of Total Batch (1988)		Baghouse (10-20-2000)	

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Equipment or Process:            Incinerator – Hazardous Waste

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Automatic Combustion Air Control, ≥ 2 Sec. Retention Time and ≥ 1800 °F (1988)	Natural Gas Supplemental Fuel with Selective Non-catalytic Reduction (1988)	Natural Gas Supplemental Fuel and Spray Dryer with Lime Injection (1988)	Automatic Combustion Air Control, ≥ 2 Sec. Retention Time and ≥ 1800 °F (1988)	0.002 gr/dscf at 12% CO <sub>2</sub> (1988)	

Note: The equipment may also be subject to 40 CFR 264, Subpart O--Incinerators

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10-20-2000 Rev. 0

Equipment or Process:            Incinerator – Infectious Waste

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
≤ 300 lbs/hr	Multiple Chamber Starved Air Design (≥ 0.5 Sec. Retention Time at ≥ 1800 °F) (1988)	Natural Gas as Auxiliary Fuel (1988)	Natural Gas as Auxiliary Fuel with Wet Scrubber (1988)	Multiple Chamber Starved Air Design (≥ 0.5 Sec. Retention Time at ≥ 1800 °F) (1988)		
> 300 lbs/hr	Same as Above	Same as Above	Same as Above	Same as Above	0.04 gr/dscf Corrected to 12% CO <sub>2</sub> , with Enclosed Automatic Feed and Ash Removal System (1988)	

Note: The equipment may also be subject to 40 CFR 60, Subpart Ec--Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction Is Commenced After June 20, 1996

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10-20-2000 Rev. 0

7-9-2004 Rev. 1

Equipment or Process:            Incinerator – Non-Infectious, Non-Hazardous Waste

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
≤ 300 lbs/hr	Multiple Chamber Starved Air Design (≥ 0.5 Sec. Retention Time at ≥ 1600 °F) (1988)	Natural Gas as Auxiliary Fuel (1988)	Natural Gas as Auxiliary Fuel with Wet Scrubber (1988)	Multiple Chamber Starved Air Design (≥ 0.5 Sec. Retention Time at ≥ 1600 °F) (1988)	Natural Gas as Auxiliary Fuel with Enclosed Automatic Feed and Fly_ash Removal System (1988)	
> 300 lbs/hr and < 750 lbs/hr	Same as Above	Same as Above	Same as Above	Same as Above	0.04 gr/dscf Corrected to 12% CO <sub>2</sub> , with Enclosed Automatic Feed and Ash Removal System (1988)	
≥ 750 lbs/hr	Multiple Chamber Starved Air Design (≥ 0.5 Sec. Retention Time at ≥ 1800 °F) (1988)	Same as Above	Same as Above	Multiple Chamber Starved Air Design (≥ 0.5 Sec. Retention Time at ≥ 1800 °F) (1988)	Same as Above	

Note: The equipment may also be subject to 40 CFR 60, Subpart CCCC--Standards of Performance for New Stationary Sources: Commercial and Industrial Solid Waste Incineration Units.

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

## Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\*

10-20-2000 Rev. 0  
7-14-2006 Rev. 1  
~~X10-XX07~~ 12-02-2016 Rev. 2

Equipment or Process: I.C. Engine, Portable <sup>1</sup>

Subcategory/ <sup>2</sup>	Rating/Size	Criteria Pollutants					
		VOC	NOx	NOx + <del>NMHC</del> <sup>1</sup> NMHC <sup>2</sup>	SOx	CO	PM
Compression-Ignition <sup>2</sup> Ignition <sup>3</sup> )	50 ≤ HP < <del>75</del> 100			<del>Tier 2:</del> <del>7.5 grams/kW-hr</del> <del>(5.6 grams/bhp-hr)</del> <del>Tier 4 Final: 3 (After</del> <del>12/31/2007):</del> <del>4.7 grams/kW-hr</del> <del>(3.5 grams/bhp-hr)</del> <del>(7X10-14XX07-</del> <del>200620XX16) (12-02-</del> <del>2016)</del>	Diesel fuel with a sulfur content no greater than 0.0015% by weight (Rule 431.2). (6-6-2003)	<del>Tier 4 Final<sup>2</sup> or</del> <del>Tier 3:</del> <del>5.0 grams/kW-hr</del> <del>(3.7 grams/bhp-hr)</del> <del>(7X10-14XX07-</del> <del>200620XX16) (12-</del> <del>02-2016)</del>	<del>Tier 4 Final<sup>2</sup> or Tier</del> <del>3:</del> <del>0.03 0.40 grams/kW-</del> <del>hr</del> <del>(0.02<del>2</del> 0.30</del> <del>grams/bhp-hr)</del> <del>and CARB ATCM</del> <del>for portable diesel</del> <del>engines<sup>3</sup>engines<sup>4</sup></del> <del>(7X10-14XX07-</del> <del>200620XX16) (12-</del> <del>02-2016)</del>
	75100 ≤ HP < 175 <sub>5</sub>		<del>Tier 4 FinalInterim:</del> <del>0.3 4 grams/kW-hr</del> <del>(0.32.5 grams/bhp-</del> <del>hr)</del> <del>(X10-XX07-</del> <del>20XX16) (12-02-</del> <del>2016)</del>	<del>Tier 4 FinalInterim<sup>2</sup>:</del> <del>-NMHC only:</del> <del>0.19 6.6 grams/kW-hr</del> <del>_____ (0.14<del>6</del> 4.9</del> <del>grams/bhp-hr)</del> <del>Tier 3 (After 12-31-</del> <del>2006):</del> <del>(X10-XX07-</del> <del>20XX16)NOx: 0.44.0</del> <del>grams/kW-hr</del> <del>(0.33.0 grams/bhp-hr)</del> <del>(7-14-2006) (12-02-</del> <del>2016)</del>	<del>Tier 4</del> <del>FinalInterim<sup>2</sup> or</del> <del>Tier 3:</del> <del>5.0 grams/kW-hr</del> <del>(3.7 grams/bhp-hr)</del> <del>(7X10-14XX07-</del> <del>200620XX16) (12-</del> <del>02-2016)</del>	<del>Tier 4 FinalInterim<sup>2</sup></del> <del>or Tier 3:</del> <del>0.02 0.30 grams/kW-</del> <del>hr</del> <del>(0.220.015</del> <del>grams/bhp-hr)</del> <del>and CARB ATCM</del> <del>for portable diesel</del> <del>engines<sup>3</sup>engines<sup>4</sup></del> <del>(7X10-14XX07-</del> <del>200620XX16) (12-</del> <del>02-2016)</del>	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

Subcategory/	Rating/Size	Criteria Pollutants					
		VOC	NO <sub>x</sub>	NO <sub>x</sub> + NMHC <sup>1</sup> NMHC <sup>2</sup>	SO <sub>x</sub>	CO	PM
	175 ≤ HP < 750		Tier 4 Final: 0.40 grams/kW-hr (0.30 grams/bhp-hr) <del>(X10-XX07- 20XX16)</del> (12-02-2016)	Tier 4 Final <del>3</del> : NMHC only: 0.19 4.0 grams/kW-hr (0.14 <del>6</del> 3.0-grams/bhp-hr) : <del>(X10-XX07- 20XX16)</del> NO <sub>x</sub> : 0.4grams/kW hr (0.3grams/bhp hr) (7-14-2006) (12-02-2016)		Tier 4 Final <del>3</del> : 3.5 grams/kW-hr (2.6 grams/bhp-hr) <del>(X10-XX07- 20XX16)</del> (7-14-2006) (12-02-2016)	Tier 4 Final <del>3</del> : 0.02-0.20 grams/kW-hr (0.015 0.15 grams/bhp-hr) and CARB ATCM for portable diesel engines <sup>3</sup> engines <sup>4</sup> <del>(X10-XX07- 20XX16)</del> (7-14-2006) (12-02-2016)

(Continued on Next Page)

<u>Compression-Ignition</u> <sup>23</sup>	≥750 HP <sup>5</sup> All	1.5 grams/bhp-hr, or 240 ppmvd as methane @ 15% O <sub>2</sub> (4-10-1998)	Tier 4 FinalInterim: <b>For Generator Sets &gt; 1200 HP:</b> 0.67 grams/kW-hr (0.50 grams/bhp-hr)  <b>For All Engines Except "Generator Ssets &gt; 1200 HP":</b> 3.5 grams/kW-hr (2.6 grams/bhp-hr) <del>(X10-XX07- 20XX16)</del> 1.5 grams/bhp hr, or 80 ppmvd @ 15% O <sub>2</sub>	Tier 4 FinalInterim: NMHC only: 0.494 grams/kW-hr (0.4630 grams/bhp-hr) <del>(X10-XX07-20XX16)</del> (12-02-2016)	Diesel fuel with a sulfur content no greater than 0.0015% by weight (Rule 431.2). (6-6-2003)	Tier 4 FinalInterim: 3.5 grams/kW-hr (2.6 grams/bhp-hr) <del>(X10-XX07- 20XX16)</del> 2.0 grams/bhp hr, or 176 ppmvd @ 15% O <sub>2</sub> (4-10-1998) (12-02-2016)	Tier 4 FinalInterim: <b>For Generator Sets:</b> 0.0310 grams/kW-hr (0.0227 grams/bhp-hr)  <b>For All Engines Except Gensets:</b> 0.04 grams/kW hr (0.03 grams/bhp hr) and CARB ATCM for portable diesel engines <sup>34</sup> <del>(X10-XX07- 20XX16)</del> (12-02-2016)
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\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

Subcategory/	Rating/Size	Criteria Pollutants					
		VOC	NO <sub>x</sub>	NO <sub>x</sub> + NMHC <sup>1</sup> NMHC <sup>2)</sup>	SO <sub>x</sub>	CO	PM
			(4-10-1998), (12-02-2016)				
Spark Ignition	All	1.5 grams/bhp-hr, or 240 ppmvd as methane @ 15% O <sub>2</sub> (4-10-1998)	1.5 grams/bhp-hr, or 80 ppmvd @ 15% O <sub>2</sub> (4-10-1998)			2.0 grams/bhp-hr, or 176 ppmvd @ 15% O <sub>2</sub> (4-10-1998)	

Notes:

- 1) BACT for “I.C. Engine, Portable” is determined by deemed complete date of permit application not date of manufacture or installation.
- 1)2) NMHC + NO<sub>x</sub>- means the sum of non-methane hydrocarbons and oxides of nitrogen emissions, unless specified as “NMHC only”, which only includes NMHC emissions.
- 2)3) Limits with an associated “after” date are required for an engine for which the application is deemed complete after that date. Limits without an associated “after” date are required now.—The engine must be certified by U.S. EPA or CARB to meet the Tier ~~2~~ or ~~3~~4 emission requirements of 40 CFR Part 89 – Control of Emissions from New and In-use Nonroad Compression-Ignition Engines shown in the table– or otherwise demonstrate that it meets the Tier ~~2~~ or ~~3~~4 emission limits. If, because of the averaging, banking, and trading program, there is no new engine from any manufacturer that meets the above standards, then the engine must meet the family emission limits established by the manufacturer and approved by U.S. EPA. Based on the model year, tThe CARB Airborne Toxic Control Measure (ATCM) for Portable Diesel Engines (see <http://www.arb.ca.gov/diesel/peatcm/peatcm.htm>) requires in-use portable diesel engines to be certified to Tier 1, 2, 3 or 3-4 by ~~1/1/2010~~their respective deadlines, all of which have passed. All exceptions allowed in the ATCM are also allowed in this guideline.
- 3) The CARB ATCM also requires in-use portable diesel engines to meet fleet-average PM standards beginning 1/1/2013. The PM limits in the table apply only to filterable PM.
- 4) \_\_\_\_\_
- 5) CARB has extended the Tier 4 Final requirements deadline “until further notice” for Portable, Compression-Ignition Engines for 75 ≤ HP < 175 and HP > 750.

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

### Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\*

10-20-2000 Rev. 0  
 6-6-2003 Rev. 1  
 12-3-2004 Rev. 2  
 7-14-2006 Rev. 3  
 10-3-2008 Rev. 4  
~~XX10-XX07~~ 12-02-2016 Rev. 5

Equipment or Process: I.C. Engine, Stationary, Emergency <sup>1)</sup>

<u>Subcategory</u>	<u>Rating/Size</u>	<u>Criteria Pollutants</u>					
		<u>NMHC or VOC</u>	<u>NOx</u>	<u>NOx + NMHC<sup>2</sup></u>	<u>SOx</u>	<u>CO</u>	<u>PM</u>
Compression Ignition, Fire Pump <sup>3, 4, 7</sup>	50 ≤ HP < 100			Compliance with SCAQMD Rule 1470 <del>(XX10-XX07-2015-2016)</del> (12-02-2016) Tier 2: 7.5 grams/kW-hr (5.6 grams/bhp-hr) Tier 3 (After 12/31/2010): 4.7 grams/kW-hr (3.5 grams/bhp-hr) (10-03-2008)	Diesel fuel sulfur content ≤ 0.05% by weight (4-10-98) On or after June 1, 2004 the user may only purchase diesel fuel with a sulfur content no greater than 0.0015% by weight (SCAQMD Rule 431.2). (6-6-2003)	Compliance with SCAQMD Rule 1470 <del>(XX10-XX07-2015-2016)</del> (12-02-2016) Tier 2 or Tier 3: 5.0 grams/kW-hr (3.7 grams/bhp-hr) (10-03-2008)	Compliance with SCAQMD Rule 1470 (12-3-2004)  Tier 2 or Tier 3: 0.40 grams/kW-hr (0.30 grams/bhp-hr) (10-03-2008)
	100 ≤ HP < 175			Compliance with SCAQMD Rule 1470 <del>(XX10-XX07-2015-2016)</del> (12-02-2016) Tier 2: 6.6 grams/kW-hr (4.9 grams/bhp-hr) Tier 3 (After		Compliance with SCAQMD Rule 1470 <del>(XX10-XX07-2015-2016)</del> (12-02-2016) Tier 2 or Tier 3:	Compliance with SCAQMD Rule 1470 (12-3-2004)  Tier 2 or Tier 3: 0.30 grams/kW-hr (0.22 grams/bhp-hr)

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

<u>Subcategory</u>	<u>Rating/Size</u>	<u>Criteria Pollutants</u>					
		<u>NMHC or VOC</u>	<u>NOx</u>	<u>NOx + NMHC<sup>2</sup></u>	<u>SOx</u>	<u>CO</u>	<u>PM</u>
				12/31/2009): 4.0 grams/kW-hr (3.0 grams/bhp-hr) (10-03-2008)		5.0 grams/kW-hr (3.7 grams/bhp-hr) (10-03-2008)	(10-03-2008)

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<u>Compression Ignition, Fire Pump<sup>3,4</sup></u> (continued)	175 ≤ HP < 750			<u>Compliance with SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> (12-02-2016) <u>Tier 2:</u> 6.6 grams/kW-hr (4.9 grams/bhp-hr) <u>Tier 3 (After 12/31/2009):</u> 4.0 grams/kW-hr (3.0 grams/bhp-hr): (10-03-2008)	<u>Diesel fuel with a sulfur content no greater than 0.0015% by weight</u> (SCAQMD Rule 431.2). (6-6-2003)	<u>Compliance with SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> (12-02-2016) <u>Tier 2 or Tier 3:</u> 3.5 grams/kW-hr (2.6 grams/bhp-hr) (10-03-2008)	<u>Compliance with SCAQMD Rule 1470</u> (12-3-2004) <u>Tier 2 or Tier 3:</u> 0.20 grams/kW-hr (0.15 grams/bhp-hr) (10-03-2008)
	≥750 HP			<u>Compliance with SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> (12-02-2016) <u>Tier 2:</u> 6.4 grams/kW-hr (4.8 grams/bhp-hr) (10-03-2008)	Same as above	<u>Compliance with SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> (12-02-2016) <u>Tier 2:</u> 3.5 grams/kW-hr (2.6 grams/bhp-hr) (10-03-2008)	<u>Compliance with SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> (12-02-2016) <u>Tier 2:</u> 0.20 grams/kW-hr (0.15 grams/bhp-hr) (10-03-2008)
<u>Compression-Ignition, Other<sup>3,4</sup></u>	50 ≤ HP < 100			<u>Compliance with SCAQMD Rule 1470</u>	Same as above	<u>Compliance with SCAQMD Rule</u>	<u>Compliance with SCAQMD Rule</u>

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

<u>Subcategory</u>	<u>Rating/Size</u>	<u>Criteria Pollutants</u>					
		<u>NMHC or VOC</u>	<u>NOx</u>	<u>NOx + NMHC<sup>2</sup></u>	<u>SOx</u>	<u>CO</u>	<u>PM</u>
7)				<del>(XX10-XX07-20156)</del> <u>(12-02-2016)</u>  Tier 3: 4.7 grams/kW-hr (3.5 grams/bhp-hr) (10-03-2008)		1470 <del>(XX10-XX07-20156)</del> <del>(12-02-2016)</del> <u>(12-02-2016)</u>  Tier 3: 5.0 grams/kW-hr (3.7 grams/bhp-hr) (10-03-2008)	1470 (12-3-2004)  Tier 3: 0.20-0.40 grams/kW-hr (-0.15 0.30 grams/bhp-hr) (10-03-2008)

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Compression-Ignition, Other <sup>3, 4, 7</sup> (continued)	100 ≤ HP < 175		Compliance with <u>SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> <u>(12-02-2016)</u>  Tier 3: 4.0 grams/kW-hr (3.0 grams/bhp-hr) (10-03-2008)	Diesel fuel with a sulfur content no greater than 0.0015% by weight (Rule 431.2). (6-6-2003)	Compliance with <u>SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> <u>(12-02-2016)</u>  Tier 3: 5.0 grams/kW-hr (3.7 grams/bhp-hr) (10-03-2008)	Compliance with <u>SCAQMD Rule 1470</u> (12-3-2004)  Tier 3: 0.30 grams/kW-hr (0.22 grams/bhp-hr) (10-03-2008)
	175 ≤ HP < 300		Compliance with <u>SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> <u>(12-02-2016)</u>  Tier 3: 4.0 grams/kW-hr		Compliance with <u>SCAQMD Rule 1470</u> <del>(XX10-XX07-20156)</del> <u>(12-02-2016)</u>  Tier 3: 0.20 grams/kW-hr	Compliance with <u>SCAQMD Rule 1470</u> (12-3-2004)  Tier 3: 0.20 grams/kW-hr

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

<u>Subcategory</u>	<u>Rating/Size</u>	<u>Criteria Pollutants</u>					
		<u>NMHC or VOC</u>	<u>NOx</u>	<u>NOx + NMHC<sup>2</sup></u>	<u>SOx</u>	<u>CO</u>	<u>PM</u>
				(3.0 grams/bhp-hr) (10-03-2008)		Tier 3: 3.5 grams/kW-hr (2.6 grams/bhp-hr) (10-03-2008)	(0.15 grams/bhp-hr) (10-03-2008)
	300 ≤ HP < 750			Compliance with SCAQMD Rule 1470 <del>(XX10-XX07-20156)</del> (12-02-2016)  Tier 3 <sup>5</sup> : 4.0 grams/kW-hr (3.0 grams/bhp-hr) (7-14-2006)		Compliance with SCAQMD Rule 1470 <del>(XX10-XX07-20156)</del> (12-02-2016)  Tier 3: 3.5 grams/kW-hr (2.6 grams/bhp-hr) (7-14-2006)	Compliance with SCAQMD Rule 1470 (12-3-2004)  Tier 3: 0.20 grams/kW-hr (0.15 grams/bhp-hr) (7-14-2006)

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<u>Compression-Ignition, Other<sup>3,4</sup></u> (continued)	≥750 HP			Compliance with SCAQMD Rule 1470 <del>(XX10-XX07-20156)</del> (12-02-2016)  Tier 2: 6.4 grams/kW-hr (4.8 grams/bhp-hr) (10-03-2008)	Diesel fuel with a sulfur content no greater than 0.0015% by weight (Rule 431.2). (6-6-2003)	Compliance with SCAQMD Rule 1470 <del>(XX10-XX07-20156)</del> (12-02-2016)  Tier 2: 3.5 grams/kW-hr (2.6 grams/bhp-hr) (10-03-2008)	Compliance with SCAQMD Rule 1470 (12-3-2004)  Tier 2: 0.20 grams/kW-hr (0.15 grams/bhp-hr) (10-03-2008)
Spark Ignition <sup>5</sup>	< 130 HP	VOC: 1.5 grams/bhp-hr	1.5 grams/bhp-hr		See Clean Fuels Policy in Part C of	2.0 grams/bhp-hr (10-20-2000)	See Clean Fuels Policy in Part C of

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

<u>Subcategory</u>	<u>Rating/Size</u>	<u>Criteria Pollutants</u>					
		<u>NMHC or VOC</u>	<u>NOx</u>	<u>NOx + NMHC<sup>2</sup></u>	<u>SOx</u>	<u>CO</u>	<u>PM</u>
		hr (10-20-2000)	(10-20-2000)		the BACT Guidelines (10-20-2000)		the BACT Guidelines (10-20-2000)
	≥ 130 HP	VOC: 1.0 grams/bhp- hr <sup>6</sup> <del>(X10-XX07- 20156) (12-02- 2016)</del> VOC: 1.5 grams/bhp hr (10-20-2000)	1.5 grams/bhp- hr (10-20-2000)		See Clean Fuels Policy in Part C of the BACT Guidelines (10-20-2000)	2.0 grams/bhp-hr (10-20-2000)	See Clean Fuels Policy in Part C of the BACT Guidelines (10-20-2000)

- 1) An emergency engine is an engine which operates as a temporary replacement for primary mechanical or electrical power sources during periods of fuel or energy shortage or while a primary power source is under repair. This includes fire pumps, emergency electrical generation and other emergency uses.
- 2) NMHC + NOx- means the sum of non-methane hydrocarbons and oxides of nitrogen emissions.
- 3) SCAQMD restricts operation of emergency compression-ignition engines to 50 hours per year, or less if required by Rule 1470, for maintenance and testing and a maximum of 200 hours per year total operation. For engines used to drive standby generators, operation beyond 50 hours per year for maintenance and testing is allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage provided that the electrical grid operator or electric utility has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a control area that is subject to the rotating outage. ~~A new stationary compression-ignition engine will also be subject to a proposed federal New Source Performance Standard Title 40, Part 60, Subpart III of the Code of Federal Regulations.~~
- 4) ~~Limits with an associated “after” date are required for an engine for which the application is deemed complete after that date. Limits without an associated “after” date are required now.~~ The engine must be certified by U.S. EPA or CARB to meet the Tier 1, 2 or 3 emission requirements of 40 CFR Part 89 – Control of Emissions from New and In-use Nonroad Compression-Ignition Engines shown in the table– or otherwise demonstrate that it meets the Tier 1, 2 or 3 emission limits. If, because of the averaging, banking, and trading program, there is no new engine from any manufacturer that meets the above standards, then the engine must meet the family emission limits established by the manufacturer and approved by U.S. EPA. The PM limits apply only to filterable PM.

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## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

### Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\*

- 5) ~~A USEPA settlement with certain engine manufacturers caused Tier 3 engines to become available one year earlier than the date specified in Part 89 for engines in the 300 hp to <750 hp size range.~~
- 6) ~~65) ———SCAQMD restricts operation of emergency spark-ignition engines to 50 hours per year for maintenance and testing and a maximum of 200 hours per year total operation. Emergency spark-ignition engines may be used in a Demand Response Program, however the engine will require additional evaluation and may be subject to more stringent regulatory requirements. ~~For emergency spark-ignition engines used to drive standby generators, operation beyond 50 hours per year for maintenance and testing is allowed only during emergencies resulting in an interruption of service of the primary power supply or during Stage II or III electrical emergencies declared by the electrical grid operator. Operators are allowed to use emergency spark-ignition engines as part of an interruptible electric service program. An interruptible electric service program is a program in which the facility receives payment or reduced rates in return for a requirement to reduce its electric load on the grid when requested to do so by the utility, the grid operator, or other organization.~~~~
- 7) ~~Since some requirements are based upon the California Airborne Toxic Control Measure for Stationary Compression Ignition Engines, applicants are referred to Title 17, Section 93115.3 of the California Code of Regulations for possible exemptions.~~
- 6) VOC limit is based on the requirement listed in Table 1 of 40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
- 8) ~~—~~

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0  
 7-9-2004 Rev. 1  
 12-3-2004 Rev. 2

Equipment or Process: I.C. Engine, Stationary, Non-Emergency

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
< 2064 bhp	0.15 grams/bhp-hr (4-10-98)	0.15 grams/bhp-hr (4-10-98)	See Clean Fuels Policy in Part C of the BACT Guidelines (10-20-2000)	0.60 grams/bhp-hr (4-10-98)	See Clean Fuels Policy in Part C of the BACT Guidelines (10-20-2000) Compliance with Rule 1470. (12-3-2004)	
≥ 2064 bhp	25 ppm @ 15% O <sub>2</sub> (7-9-2004)	9 ppmvd @ 15% O <sub>2</sub> (7-9-2004)	Same as Above (10-20-2000)	33 ppmvd @ 15% O <sub>2</sub> (5-8-98)	Same as Above (7-9-2004)	Ammonia: 10 ppmvd @ 15% O <sub>2</sub> (7-9-2004)
Landfill or Digester Gas Fired	0.8 grams/bhp-hr (4-10-98)	0.60 grams/bhp-hr (4-10-98)	Compliance with Rule 431.1 (10-20-2000)	2.5 grams/bhp-hr (4-10-98)		

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

~~XX10-XX07~~12-02-2016 Rev. 0

Equipment or Process: I.C. Engine, Stationary, Non-Emergency, Non-Electrical Generators<sup>1</sup>

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
> 50 bhp < 2064 bhp	<del>30 ppmvd @ 15% O<sub>2</sub>, e</del> Compliance with SCAQMD Rule 1110.2 ( <del>X10-XX07-20156</del> ) 0.15 grams/bhp-hr (4-10-98) (12-02-2016)	<del>11 ppmvd @ 15% O<sub>2</sub>, e</del> Compliance with SCAQMD Rule 1110.2 ( <del>X10-XX07-20156</del> ) 0.15 grams/bhp-hr (4-10-98) (12-02-2016)	See Clean Fuels Policy in Part C of the BACT Guidelines ( <del>X10-XX07-20156</del> ) (10-20-2000) (12-02-2016)	<del>70 ppmvd, @ 15% O<sub>2</sub>, e</del> Compliance with SCAQMD Rule 1110.2 ( <del>X10-XX07-20156</del> ) 0.60 grams/bhp-hr (4-10-98) (12-02-2016)	See Clean Fuels Policy in Part C of the BACT Guidelines ( <del>X10-XX07-20156</del> ) (10-20-2000) (12-02-2016)  Compliance with Rule 1470- ( <del>X10-XX07-20156</del> ) (12-3-2004) (12-02-2016)	
Landfill or Digester Gas Fired <sup>2</sup> ≥ 2064 bhp	<del>30 ppmvd</del> 0.8 grams/bhp-hr ( <del>X10-XX07-20156</del> ) Compliance with SCAQMD Rule 1110.2 (4-10-98) 25 ppm @ 15% O <sub>2</sub>	<del>11 ppmvd</del> Compliance with SCAQMD Rule 1110.2 0.60 grams/bhp-hr ( <del>X10-XX07-20156</del> ) (4-10-98) 9 ppmvd @ 15% O <sub>2</sub>	Compliance with SCAQMD Rule 431.1 ( <del>X10-XX07-20156</del> ) (10-20-2000) Same as Above (10-20-2000) (12-	<del>250 ppmvd</del> Compliance with SCAQMD Rule 1110.2 2.5 grams/bhp-hr ( <del>X10-XX07-20156</del> ) 33 ppmvd @ 15% O <sub>2</sub>	Same as Above (7-9-2004)	Ammonia: 10 ppmvd @ 15% O <sub>2</sub> (7-9-2004)

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

	<del>(7-9-2004)</del> <u>(12-02-2016)</u>	<del>(7-9-2004)</del> <u>(12-02-2016)</u>	<u>02-2016)</u>	<del>(5-8-98)</del> <u>(12-02-2016)</u>		
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- 1) This BACT listing was adapted from the “I.C. Engine, Stationary, Non-Emergency.” An additional listing for “I.C. Engine, Stationary, Non-Emergency, Electrical Generators,” is currently under development. Until the amendment is developed, Stationary, Non-Emergency,- Electrical Generators will be subject to “I.C. Engine, Stationary, Non-Emergency.”
- 2) For the adoption of this new listing, the requirements for this subcategory were transferred directly from the existing requirements under “I.C. Engine, Stationary, Non-Emergency.” The requirements are not new, but the date listed was updated to reflect the date of adoption of the new listing.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Jet Engine Test Facility

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Experimental High Altitude Testing					Venturi Scrubber with Water Spray in Exhaust (1988)	
Experimental Sea Level (Low Altitude) Testing <sup>1</sup>						
Performance Testing <sup>1</sup>						

1) At the date of the last revision for this category, there was no Achieved In Practice BACT Determination for this subcategory. Technologically Feasible options listed in historic SCAQMD BACT Guidelines for this subcategory require cost effective analyses before they can be listed in these current Guidelines.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:            Landfill Gas Gathering System

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Compliance with SCAQMD Rule 1150.1 - Control of Gaseous Emissions from Municipal Solid Waste Landfills (10-20-2000)					

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Latex Manufacturing - Reaction

Rating/Size	Criteria Pollutants					
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
All	Catalytic Incinerator and Caustic Scrubber (1988)					

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Lead Melting Furnace

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Pot or Crucible, Non-Refining Operations		Natural Gas (1990)	Natural Gas (1990)		Natural Gas and Melt only Sows, Pigs, Ingots or Clean Scrap (1990)	
Pot or Crucible, Refining Operations		Natural Gas (1990)	Natural Gas with Scrubber; or Natural Gas with Sulfur Free Refining Agents (1990)		Natural Gas with Baghouse (1990)	
Reverberatory, Secondary Melting Operations		Natural Gas with Low NOx Burner (10-20-2000)	Natural Gas with Scrubber (1990)		Natural Gas with Baghouse (1990)	

Note: Some secondary lead smelting operations must also comply with the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart X.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:     Lead Oxide Manufacturing – Reaction Pot Barton Process

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All		Natural Gas (1988)	Natural Gas (1988)		Natural Gas with Baghouse (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0  
~~X10-XX07~~12-02-2016 Rev.1

Equipment or Process:    Liquid Transfer and Handling

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Marine, Loading	For VOC Emissions: Vapor Collection System Vented to Incinerator (1990)					
Tank Truck and Rail Car Bulk Loading, Class A (SCAQMD Rule 462)	Compliance with <u>SCAQMD</u> Rule 462 (0.08 Lbs/1000 Gals) (10-20-2000)					For Ammonia: Bottom Loading with Vapor Collection System Vented to Packed Column Scrubber (10-20-2000)
Tank Truck and Rail Car Bulk Loading, Classes B and C (SCAQMD Rule 462)	Bottom Loading with Vapor Collection System Vented to: - Incinerator; or - Compression/absorption with Tail Gas Vented to Incinerator; or - Refrigeration System; or - Carbon Adsorption system and Compliance with <u>SCAQMD</u> Rule 462 (10-20-2000)					Same as Above
<u>Gasoline Transfer and Dispensing</u>	<u>Compliance with Rule 461</u> <del>(10-07-2016)</del> (12-02-2016)					

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Metal Heating Furnace

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All		Natural Gas with Low NO <sub>x</sub> Burner ≤ 50 ppmvd at 3% O <sub>2</sub> , dry. (10-20-2000)	Natural Gas(1990)			Natural Gas(1990)

Note: This category includes metal aging, annealing, forging, heat treating, and homogenizing.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Metallizing Spray Gun

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Water Wash Spray Booth or Scrubber (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Mixer, Blender or Mill

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Dry					Baghouse (07-11-97)	
Wet	Carbon Adsorber; or Refrigerated Condenser; or Afterburner (VOC Emissions Only); or Vapor Recovery (07-11-97)				Baghouse if Dry Ingredients are Added (07-11-97)	Packed Column Scrubber (07-11-97)

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Nitric Acid Manufacturing

Rating/Size	Criteria Pollutants					
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
All		Catalytic Reduction Furnace (07-11-97)				

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Non-Metallic Mineral Processing – Except Rock or Aggregate

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse for Enclosed Operations  Water Fog Spray for Open Operations (1988)	

- Notes:
1. Non-metallic Minerals are minerals such as rock salt, sodium compounds, pumice, gilsonite, talc and pyrophyllite, boron, barite, fluorspar, feldspar, diatomite, perlite, vermiculite, mica, carbon black, silicon and kyanite.
  2. This category includes conveying, size reduction and classification.

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:            Nut Roasting

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Roaster		Natural Gas (1988)			Afterburner (≥ 0.3 second Retention Time at ≥ 1,400 °F) (10-20-2000)	
Handling Equipment					Baghouse (10-20-2000)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0  
~~X10-XX07~~ 12-02-2016 Rev. 1

Equipment or Process: Oil and Gas Production

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Combined Tankage	All Tanks Vented to: - Vacuum Gas Gathering System; or - Positive Pressure Gas Gathering System; or - Incinerator or Firebox (1988)  <u>Compliance with SCAQMD Rules 1148 and 1148.1 (<del>X10-XX07-2015</del>) (12-02-2016)</u>					
Wellhead	All Wellheads Vented to: - Vacuum Gas Gathering System; or - Positive Pressure Gas Gathering System; or - Incinerator or Firebox _____ (10-20-2000)  <u>Compliance with SCAQMD Rules 1148 and 1148.1 (<del>X10-XX07-2015</del>) (12-02-2016)</u>					

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Open Spraying – Spray Gun

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Compliance with Regulation XI (10-20-2000)				Compliance with Regulation XI (10-20-2000)*	

\* The open spraying must be conducted in a spray booth where feasible.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:            Perlite Manufacturing System

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All		Natural Gas with Low NO <sub>x</sub> Burner (10-20-2000)	Natural Gas (10-20-2000)		Baghouse (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

7-9-2004 Rev. 1

Equipment or Process:      Pharmaceutical Manufacturing

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Operations Involving Solvents	Afterburner (≥0.3 second Retention Time at ≥1,400°F), Refrigerated Condenser, or Carbon Adsorber (07-11-97)					
Solids Handling					Baghouse (07-11-97)	
Solids Storage Tanks					Baghouse or Vent Filter (07-11-97)	

Note: This equipment may also be subject to SCAQMD Rule 1103 and 40 CFR 63 Subpart GGG – National Emission Standards Pharmaceuticals Production. (7-9-2004)

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Phosphoric Acid - Thermal Process

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Fiber Mist Filter, Electrostatic Precipitator, or Packed Scrubber with Mist Eliminator (07-11-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Phthalic Anhydride

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Afterburner (≥0.3 Second Retention Time at ≥1,400°F) or Water Cooled Condenser (07-11-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Plasma Arc Metal Cutting Torch

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
> 30 KVA Electrical Input					Water Table and Nozzle Water Shroud; or Electrostatic Precipitator (1988)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Polyester Resin Operations - Molding and Casting

Rating/Size	Criteria Pollutants					
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
All	Compliance with SCAQMD's Rule 1162 and Use of Aqueous Emulsion Cleaner or Acetone for Clean-Up to Maximum Extent Possible (1988/10-20-2000)					

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Polystyrene Extruder

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Electrostatic Precipitator or Fiber Mist Filter (07-11-97)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Polystyrene Manufacturing

Rating/Size	Criteria Pollutants					
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
All	Water Cooled Condenser (07-11-97)					

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Powder Coating Booth

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
< 37 Lbs/Day Throughput					Pocket or Bag-Type Filters (10-20-2000)	
≥ 37 Lbs/Day Throughput					Powder Recovery System with a Cyclone Followed by a Baghouse or Cartridge Dust Collector or HEPA Filters (≥ 99% efficiency) (1988/10-20-2000)	

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Precious Metal Reclamation

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Incineration		Natural Gas (1988)	Natural Gas (1988)		Natural Gas with Baghouse and: - Afterburner (≥ 0.3 sec. Retention Time at ≥ 1400° F); or -Secondary Combustion Chamber (≥ 0.3 sec. Retention Time at ≥ 1400° F) (1988)	
Chemical Recovery and Chemical Reactions		3-Stage NO <sub>x</sub> Reduction Scrubber (07-11-97)				

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0  
 12-5-2003 Rev. 1  
 7-14-2006 Rev 2

Equipment or Process: Printing (Graphic Arts)

Subcategory	Criteria Pollutants					
	VOC	NOx	SOx	CO	PM <sub>10</sub>	Inorganic
Flexographic	Inks with ≤ 1.5 Lbs VOC/Gal, Less Water and Less Exempt Compounds (1990) Compliance with <u>SCAQMD</u> Rules 1130 and 1171 (12-5-2003)					
Letterpress	Compliance with <u>SCAQMD</u> Rules 1130 and 1171 (12-5-2003)					
Lithographic or Offset, Heatset	Low VOC Fountain Solution (≤ 8% by Vol. VOC); Low Vapor Pressure (≤ 10 mm Hg VOC Composite Partial Pressure <sup>1)</sup> ) or Low VOC (≤ 100 g/l) Blanket and Roller Washes; Oil-Based or UV-Curable Inks; and Compliance with <u>SCAQMD</u> Rules 1130 and 1171 (7-14-2006)				Oven Venting to an Afterburner (≥ 0.3 Sec. Retention Time at ≥ 1400 °F; 95% Overall Efficiency) (10-20-2000)	
Lithographic or Offset, Non-Heatset	Same As Above					
Rotogravure or Gravure—Publication and Packaging	Compliance with <u>SCAQMD</u> Rules 1130 and 1171 (10-20-2000)					
Screen Printing and Drying	Compliance with <u>SCAQMD</u> Rules 1130.1 and 1171 (12-5-2003)					

(Continued on Next Page)

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## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

### Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\*

- 1) VOC COMPOSITE PARTIAL PRESSURE is the sum of the partial pressures of the compounds defined as VOCs. VOC Composite Partial Pressure is calculated as follows:

$$PP_c = \sum_{i=1}^n \frac{\frac{(W_i)(VP_i)}{MW_i}}{\frac{W_w}{MW_w} + \frac{W_e}{MWe} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where:	PP <sub>c</sub>	=	VOC composite partial pressure at 20°C in mm Hg
	W <sub>i</sub>	=	Weight of the “i”th VOC compound in grams
	MW <sub>i</sub>	=	Molecular weight of “i”th VOC compound in grams per gram-mole
	VP <sub>i</sub>	=	Vapor pressure of the “i”th VOC compound at 20°C in mm Hg
	W <sub>w</sub>	=	Weight of water in grams
	MW <sub>w</sub>	=	Molecular weight of water in grams per gram-mole
	W <sub>e</sub>	=	Weight of exempt compound in grams
	MWe	=	Molecular weight of exempt compound in grams per gram-mole

For multiple exempt compounds:  $W_e / MWe = \sum_{j=1}^n W_{ej} / MW_{ej}$

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# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

## Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\*

10-20-2000 Rev. 0  
 10-03-2008 Rev. 1  
~~XX10-XX07~~ 12-02-2016 Rev. 2

Equipment or Process:                      Process Heater – Non-Refinery

Subcategory/Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub> <sup>1)</sup>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Natural Gas or Propane Fired, < 20 MM Btu/hr		<del>≤ 20 ppmv dry corrected to 3% O<sub>2</sub><sup>2)</sup> (10-20-2000)</del> <u>Compliance with SCAQMD Rules 1146 and 1146.1 (10-07-2016) (12-02-2016)</u>	Natural Gas (10-20-2000)	≤50 ppmv for firetube type, ≤ 100 ppmv for watertube type, dry corrected to 3% O <sub>2</sub> (10-20-2000)	Natural Gas (10-20-2000)	
Natural Gas or Propane Fired, ≥ 20 MM Btu/hr		<del>With Low NO<sub>x</sub> Burner:</del> <del>≤ 9 ppmv dry corrected to 3% O<sub>2</sub></del> <u>With SCR or LTO:</u> <del>≤ 7 ppmv dry corrected to 3% O<sub>2</sub> (10-20-2000)</del> <u>Compliance with SCAQMD Rules 1146 and 1146.1 (10-07-2016) (12-02-2016)</u>	Natural Gas (10-20-2000)	Same as above. (10-20-2000)	Natural Gas (10-20-2000)	<u>With SCR:</u> ≤ 5 ppmvd NH <sub>3</sub> , corrected to 3% O <sub>2</sub> <u>With LTO:</u> ≤ 1 ppmvd ozone, corrected to 3% O <sub>2</sub> (10-20-2000)

1) Rules 1146 and 1146.1 require that boilers rated >2 and <75 MMBtu/hr meet 9 ppm NO<sub>x</sub> beginning 1/1/2012 for some categories, that natural gas-fired boilers rated at ≥75 MMBtu/hr meet 5 ppm by 1/1/2015 (except boilers at schools and universities), that natural-draft boilers rated >2

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## **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

### **Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

and  $\leq 10$  MMBtu/hr with unsealed combustion chambers meet 12 ppm by 1/1/2014, and that boilers firing landfill or digester gas meet 25 or 15 ppm, respectively, by 1/1/15 (all ppm are dry, corrected to 3% O<sub>2</sub>). Electric utility boilers, refinery boilers rated  $>40$  MMBtu/hr and sulfur plant reaction boilers rated  $\geq 5$  MMBtu/hr are excluded; and there are exceptions for low-use boilers and boilers that met a 12-ppm limit prior to 9/5/08. Applicants are advised to review these rules for further details.

- 2) A higher NO<sub>x</sub> limit may be allowed for facilities required to have a standby fuel, where use of a clean standby fuel is not possible and an ultra low-NO<sub>x</sub> burner is not available.

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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0  
 12-5-2003 Rev. 1

Equipment or Process: Reactor with Atmospheric Vent <sup>a)</sup>

Rating/Size	Criteria Pollutants					Inorganic
	VOC/ODC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	- Carbon Adsorber; or - Afterburner (VOC Only); or - Refrigerated Condenser; or - Scrubber with Approved Liquid Waste Disposal (VOC only) (1990)					

a) Also see “Resin Manufacturing” and “Surfactant Manufacturing”. (12-5-2003)

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Rendering

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Processing Equipment <sup>1)</sup>					Vent to Afterburner or Boiler Fire Box (≥ 0.3 sec. Retention Time at ≥ 1200 °F) (1988)	
Meal Grinding and Handling System					Enclosed Grinding and Screening Operation with Mechanical Conveyors Transporting Meal (1988)	
Tanks and Miscellaneous Equipment					Maintain Internal Temperature Below 140 °F (1988)	

1)        Processing equipment includes crax pressing, filtering, centrifuging, evaporators, cookers, dryers, and grease and blood processing.

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

12-5-2003 Rev. 0

Equipment or Process:            Resin Manufacturing

Subcategory	Criteria Pollutants					
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
Continuous Polystyrene Process	Compliance with SCAQMD Rule 1141: ≤0.12 Pounds VOC per 1000 Pounds Completed Resin Product from Vacuum Devolatilizer and Styrene Recovery Systems (12-5-2003)					
Liquid-Phase, High-Density Polyethylene Slurry Process	Compliance with SCAQMD Rule 1141: ≥98% Reduction from Reactors, Recycle Treaters, Thinning Tanks, Blending Tanks and Product Finishing Section (12-5-2003)					
Liquid-Phase Polypropylene Process	Compliance with SCAQMD Rule 1141: ≥98% Reduction From Organic Resin Reactors, Slurry Vacuum Filter System, Diluent Recovery Section and Product Finishing Section (12-5-2003)					
Other Resin Manufacturing	Compliance with SCAQMD Rule 1141: ≤0.5 Pounds VOC per 1000 Pounds Completed Resin Product, or ≥95% Reduction from Resin Reactors, Thinning Tanks and Blending Tanks (12-5-2003)					

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Rock – Aggregate Processing

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse Venting Jaw Crushers, Cone Crushers, and Material Transfer Points Adjacent to and after these Items; and Water Sprays at Other Material Transfer Points (1990)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Rocket Engine Test Cell

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All		Chemical Packed Scrubber (1988)			Chemical Packed Scrubber and Water Spray in Exhaust with Steam Ejectors (1988)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:           Rubber Compounding – Banbury Type Mixer

	<b>Criteria Pollutants</b>					
<b>Rating/Size</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>Inorganic</b>
All					Baghouse (1988)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

BACT Guidelines - Part D

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\_\_\_\_\_Rubber Compounding – Banbury Type Mixer  
 \_\_\_\_\_~~Sand~~  
 \_\_\_\_\_~~Handling System with Shakeout and/or Muller in System~~



**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Sewage Treatment Plants

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Carbon Adsorber or Scrubbing System, Covers for Primary Raw Sewage Processing, and Digester Gas Incineration or Recovery (1988)		Ferrous Chloride Injection and Caustic Scrubber for Hydrogen Sulfide Removal (1988)			

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:    Smokehouse

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All	Afterburner (≥ 0.3 sec. Retention Time at ≥ 1200° F) (1990)	Steam Heated Smokehouse and Electrically Heated Smoke Generator (1990)		Afterburner (≥ 0.3 sec. Retention Time at ≥ 1200° F) (1990)	Afterburner (≥ 0.3 sec. Retention Time at ≥ 1200° F) (1990)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Solder Leveling –Hot Oil or Hot Air

	<b>Criteria Pollutants</b>					
<b>Rating/Size</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	<b>Inorganic</b>
All					Electrostatic Precipitator (1988)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Solvent Reclamation

Rating/Size	Criteria Pollutants					
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	Inorganic
All	Refrigerated or Water Cooled Condenser (07-11-97)					

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:     Spray Booth

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
Automotive, Down-Draft Type, < 660 Lbs/Month of VOC Emissions	Compliance with Applicable <u>SCAQMD</u> Regulation XI Rules (10-20-2000)				Dry Filters or Waterwash (1990)	
Other Types, < 1170 Lbs/Month of VOC Emissions	Compliance with Applicable <u>SCAQMD</u> Regulation XI Rules (10-20-2000)				Same as Above (1990)	
Automotive, Down-Draft Type, ≥ 22 Lbs/Day of VOC Emissions	- Compliance with Applicable <u>SCAQMD</u> Regulation XI Rules, and VOC Control System with ≥ 90% Collection Efficiency and ≥ 95% Destruction Efficiency, or - Use of Super <del>Clean</del> -Compliant Materials (< 5% VOC by weight); or - Use of Low-VOC Materials Resulting in an Equivalent Emission Reduction (10-20-2000)				Same as Above (1990)	
Other Types, ≥ 1170 Lbs/Month of VOC Emissions	Same as Above (10-20-2000)				Same as Above (1990)	

Note: The sum of all VOC emissions from all spray booths within the same subcategory applied for in the previous two years at the same facility are considered toward the emission threshold.

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:     Steel Melting Furnace

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Electric Arc					Baghouse (1988)	
Induction, ≤ 300 Lb. Capacity					Charge Only Ingots or Clean Returns, or Baghouse (10-20-2000)	
Induction, > 300 Lb. Capacity					Baghouse (07-11-97)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:            Storage Tanks - Liquid

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Asphalt					Cool Gases to < 120 °F and Vent to a Fiberglass or Steel Wool Filter. (07-11-97)	
External Floating Roof, VP ≤ 11 psia	Category A Tank Seals and Compliance with Rule 463 (10-20-2000)					
Fixed Roof	Vapor Recovery System with an Overall System Efficiency of ≥ 95% (7-11-97)					
Fuming Sulfuric Acid					Scrubber Followed by Fiber Mist Filter; or Water Spray Followed by Fiber Mist Filter (1988)	
Grease or Tallow					Maintain Temperature ≤ 140 °F (1988)	
Internal Floating Roof	Category A Tank Seals and Compliance with Rule 463 (10-20-2000)					
Sulfuric Acid			Caustic Scrubber and Mist Eliminator (1988)			
Underground, > 250 Gallons	≥ 95% Removal Efficiency for VOC (1990)					

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

12-5-2003 Rev. 0

Equipment or Process:      Surfactant Manufacturing

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
All	Compliance with <u>SCAQMD</u> Rule 1141.2 <sup>a)</sup> : ≤0.5 Pounds per 1000 Pounds of Surfactant Product, or ≥95% (Wt.) Reduction From All Surfactant Manufacturing Equipment Vented to Atmosphere (12-5-2003)					

a) Does not apply to soap manufacturing operations or facilities that only blend and package surfactants.

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Tank – Grease or Tallow Processing

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Water Cooled or Atmospheric Condenser and Afterburner (≥ 0.3 sec. Retention Time at ≥ 1200 °F) (1990)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Tire Buffer

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Cyclone and Water Spray at Rasp (07-11-97)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:      Vegetable Oil Purification

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NOx	SOx	CO	PM <sub>10</sub>	
All	Scrubber and Barometric Condenser (1988)					

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:        Vinegar Manufacturing

<b>Rating/Size</b>	<b>Criteria Pollutants</b>					<b>Inorganic</b>
	<b>VOC</b>	<b>NO<sub>x</sub></b>	<b>SO<sub>x</sub></b>	<b>CO</b>	<b>PM<sub>10</sub></b>	
All	Scrubber with SCAQMD- and Sanitation District- Approved Liquid Disposal (1988)					

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0  
 12-5-2003 Rev. 1

Equipment or Process:                      Wastewater System

Subcategory	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Oil/Water Separator	Cover and Vent to Vapor Disposal System (1988); and Compliance with <u>SCAQMD</u> Rule 1176 (12-5-2003)					
Other Equipment	Compliance with <u>SCAQMD</u> Rule 1176 if Applicable by Rule <sup>a)</sup> (12-5-2003)					

a) Not required for sanitary sewer system.

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process: Wax Burnoff Furnace

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All		Natural Gas with Low Nox Burner (1988)]	Natural Gas (1988)		Natural Gas with Afterburner or Secondary Combustion Chamber (≥ 0.3 sec. Retention Time at ≥ 1200° F) (1988)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:            Wood Processing Equipment

Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
All					Baghouse (1988)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

12-5-2003 Rev. 0

Equipment or Process:            Woodworking

Subcategory	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Pneumatic Conveyance System					Compliance with SCAQMD Rule 1137 <sup>a)</sup> : Baghouse with No Visible Emissions Except During Startup and Shutdown (12-5-2003)	

a) Not required if system vents solely to stand-alone control device or into a closed room.

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
**Best Available Control Technology (BACT) Guidelines for Non-Major Polluting Facilities\***

10-20-2000 Rev. 0

Equipment or Process:     Zinc Melting Furnace

Subcategory/ Rating/Size	Criteria Pollutants					Inorganic
	VOC	NO <sub>x</sub>	SO <sub>x</sub>	CO	PM <sub>10</sub>	
Crucible or Pot		Natural Gas (1990)	Natural Gas (1990)		Natural Gas with Ingot and/or Clean Scrap Charge Only, or Baghouse (1988/2000)	
Reverberatory, Non-Sweating Operations		Natural Gas (1990)	Natural Gas (1990)		Same as Above (10-20-2000)	
Reverberatory, Sweating Operations		Natural Gas (1990)	Natural Gas (1990)		Natural Gas with Baghouse and: Afterburner (≥ 0.3 sec. Retention Time at ≥ 1400° F); or Secondary Combustion (≥ 0.3 sec. Retention Time at ≥ 1400° F); (1990)	
Rotary, Sweating Operations		Natural Gas (1990)	Natural Gas (1990)		Same as Above (1990)	

\* Means those facilities that are not major polluting facilities as defined by Rule 1302 - Definitions

## ATTACHMENT E

### South Coast Air Quality Management District Best Available Control Technology Scientific Review Committee Charter

~~October~~December 2016

#### **History**

In March 1994, the SCAQMD Governing Board initiated a program to update and revise the Best Available Control Technology (BACT) Guidelines. As part of this update, the Board established requirements for public review and comment. The BACT Scientific Review Committee (BACT SRC) was created to assist SCAQMD staff with the policy issues used to develop and implement BACT procedures in the BACT Methodology Report. The BACT SRC was initially convened in July 1994 and participated in a series of public meetings. Due to their contributions to the BACT Methodology Report, the BACT SRC was officially established by the Governing Board as a standing committee on September 8, 1995 to review matters dealing with BACT.

This BACT SRC Charter has been adopted to formalize the BACT SRC membership and its role in the development of the BACT Guidelines.

#### **Mission of the BACT Scientific Review Committee**

The BACT SRC shall consist of experts in the field of air quality who shall assist and advise SCAQMD staff to ensure the BACT Guidelines are developed in a public process that is clear, consistent, and based on sound, technical information and data.

#### **Goals**

1. Contribute to the development of the BACT Guidelines through the public process;
2. Provide SCAQMD staff with technical expertise regarding issues pertinent to the proposed BACT updates; and
3. Advise SCAQMD staff to create a more certain and predictable BACT determination process.

#### **Objectives**

The BACT Scientific Review Committee shall achieve its goals by meeting periodically when BACT Guidelines updates are under development by:

1. Providing verbal and written comments to SCAQMD staff regarding proposed BACT Guidelines presented at the BACT SRC meetings;
2. Providing technical knowledge and promoting discussion regarding technologies for proposed BACT Guidelines;
3. Assisting SCAQMD staff to ensure proposed BACT Guidelines are clear and consistent with local, state, and federal air quality requirements; and
4. Advising SCAQMD staff on the development, interpretation and implementation of policies and procedures of the BACT Guidelines.

All objectives shall be achieved by members in a manner consistent with the Ethics Training pursuant to Assembly Bill 1234. In addition, the objectives shall adhere to the requirements of California Health and Safety Code 40440.11.

### **Membership Qualifications and Composition**

The BACT SRC shall consist of up to 19 members currently or previously practicing their profession in the technical or scientific field of air quality. The original BACT SRC consisted of public and private professionals from industry, trade associations, academia, air quality practitioners, other governmental agencies, and SCAQMD Advisory personnel. The members of the BACT SRC shall consist of:

- Four members from regulated industries
- Three members from trade associations
- Five members from other governmental agencies
- Three members from academic institutions
- Four members who are air quality practitioners (industry consultants or environmental groups)

The membership will be recommended to and appointed by the Executive Officer. If a suitable member cannot be found for one of the membership categories, then that spot shall remain vacant. BACT SRC members will serve a two-year term with the possibility of being reappointed for additional two-year terms.

~~In their absence,~~ BACT SRC members may propose alternate members within their same organization to serve when the primary member is absent. Alternates must be approved by the Executive Officer.

SCAQMD shall post a list of BACT SRC membership on the SCAQMD website. To expedite the filling of vacancies, SCAQMD staff shall maintain a list of interested parties for the BACT SRC membership.

### **Operational Guidelines**

Agendas for meetings will be prepared, posted and distributed to BACT SRC members and the public in accordance with legal requirements (Brown Act). Teleconference locations shall also be noticed in accordance with legal requirements. When applicable, SCAQMD staff shall provide proposed BACT Guidelines updates to the members seven days prior to the BACT SRC meeting. Proposed BACT Guidelines updates will also be made available to the attending public at the BACT SRC meeting.

During BACT SRC meetings:

- SCAQMD staff shall present proposed BACT determinations and proposed BACT Guidelines amendments, as well as address any continuing or unresolved items from the previous BACT SRC meeting,

- The BACT SRC members may comment on the proposed design, process and procedures of the BACT Guidelines, as well as contribute knowledge and experience to discuss related technical issues;
- The public will also have an opportunity to provide comments regarding the proposed BACT determinations and Guidelines updates; however,
- Past permitting decisions shall not be discussed at the BACT SRC meeting unless it is pertinent to the current proposal.

The BACT SRC meeting shall commence a 30-day public comment period for the proposed BACT Guidelines during which written comments may be submitted to SCAQMD BACT staff.

All BACT SRC members and alternates shall be required to maintain current AB 1234 biennial Ethics Training.

### **Reporting**

The Governing Board's Stationary Source Committee shall be the BACT and BACT SRC Committee Board's liaison. SCAQMD BACT staff shall provide a report to the Stationary Source Committee subsequent to each BACT SRC meeting.

### **Brown Act**

As a standing committee created by the SCAQMD Governing Board, the BACT Scientific Review Committee meetings and its membership are subject to the requirements of the Brown Act. All SCAQMD public meeting and notification protocols will be followed.

ATTACHMENT F



South Coast  
Air Quality Management District  
21865 Copley Drive, Diamond Bar, CA 91765-4182  
(909) 396-2000 • <http://www.aqmd.gov>

**SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

**PROJECT TITLE: AMENDMENTS TO BEST AVAILABLE CONTROL TECHNOLOGY GUIDELINES**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and will prepare a Notice of Exemption for the project identified above. The SCAQMD has reviewed the proposed project pursuant to CEQA Guidelines §15002 (k)(1), the first step of a three-step process for deciding which document to prepare for a project subject to CEQA.

SCAQMD's New Source Review (NSR) regulations require applicants to use Best Available Control Technology (BACT) for new sources, relocated sources, and for modifications to existing sources that may result in an emission increase of any nonattainment air contaminant, any ozone depleting compound (ODC), or ammonia. Regulation XIII – New Source Review also requires the Executive Officer to periodically publish BACT Guidelines that establish the procedures and the BACT requirements for commonly permitted equipment.

The proposed project is to update the Overview, Parts A, B, C and D, and to add Parts E and F to the BACT Guidelines in order to maintain consistency with recent changes to SCAQMD rules, and state and federal requirements. The proposed amendments will not result in more stringent requirements than those already required by current regulations. Therefore, it was not necessary for staff to evaluate the achieved-in-practice status nor cost effectiveness of the underlying technologies required for updates to BACT. Since the proposed amendments are only updating the BACT Guidelines with current, already existing requirements, it can be seen with certainty that the proposed project has no potential to adversely impact air quality or any other environmental topic area. As such, the proposed project is exempt from CEQA pursuant to CEQA Guidelines §15061(b)(3).

Any questions regarding this Notice of Exemption should be sent to Jeff Inabinet (c/o Planning, Rule Development & Area Sources) at the above address. Mr. Inabinet can also be reached at 909.396.2453. Questions regarding the proposed amendments to the BACT Guidelines should be directed to Mr. Al Baez at 909.396.2516.

**Date:** October 25, 2016

**Signature:** *Jillian Wong*

Jillian Wong, Ph.D.  
Program Supervisor - CEQA  
Planning, Rule Development &  
Area Sources



## ATTACHMENT G

### COMMENTS AND RESPONSES TO PROPOSED AMENDMENTS OF THE BACT GUIDELINES

~~As~~ Public meetings ~~were~~ held on May 11, September 27, and November 9, 2016 with the BACT Scientific Review Committee to present and discuss the proposed amendments to the BACT Guidelines. The following comments and questions, and staff responses, are from letters and e-mails received as well as comments made at the BACT SRC meetings:

#### Overview

##### **Comment O1:**

Page 1, Recommend that AQMD differentiate between state vs federal requirements in this overview. (LADWP– BACT SRC member)

##### **Response O1:**

The Overview section is designed to provide an introduction to the BACT Guidelines and a summary of how BACT is implemented in the SCAQMD. Applicable state and federal requirements are addressed within the respective five chapters of the Overview.

---

##### **Comment O2:**

Page 2, Chapter 1-Introduction, Paragraph 1.

“The South Coast Air Quality Management District (SCAQMD) Regulation XIII – New Source Review (NSR) **and Regulation XX – RECLAIM**, require applicants to use Best Available Control Technology (BACT) for new sources, relocated sources, and for modifications to existing sources that may result in an emission increase of any nonattainment air contaminant, any ozone depleting compound (ODC), or ammonia.”

Do these guidelines apply to RECLAIM facilities? If not, I suggest deleting it.

(OCSD– BACT SRC member)

**Response O2:**

Yes, SCAQMD Rule 2005 – New Source Review for RECLAIM sets forth pre-construction New Source Review requirements for facilities subject to the RECLAIM program for new or modified sources which increase their allocations. BACT will apply to every emission source located at a RECLAIM facility.

---

**Comment O3:**

Page 3, Chapter 1-Introduction.

“During the (BACT SRC) meeting someone asked the question whether a BACT determination is at the time a permit is issued or at the same time the application is determined complete. We had a situation in Region 9 that I thought I should pass along. An EPA Region 9 permit was vacated because the source was not required to demonstrate compliance with a new NAAQS that became effective after Region 9 had determined the application was complete. (US 9<sup>th</sup> Circuit Court of Appeals case no. 11-73342). The federal statutory preconstruction permitting requirements for BACT and LAER are at sections 165(a)(4) and 173(a)(2) of the Clean Air Act.”

(EPA Region 9- BACT SRC member)

**Response O3:**

~~Staff acknowledges comment~~In accordance with the BACT Guidelines, LAER is determined at the time the permit is issued and BACT is determined at the time the permit is deemed complete for a minor source.

---

**Comment O4:**

Page 2, Chapter 1-Introduction, Paragraph 1.

“PSD BACT is incorporated into these BACT Guidelines. As of the publication date of these guidelines, there is **not a** requirement for SCAQMD to publish T-BACT guidelines and T-BACT must be established during the permitting process. ~~The BACT Guidelines were first published in May 1983, and later revised in October 1988.~~”

Change “not a” to “no” (OCSD– BACT SRC member)

**Response O4:**

Staff agrees and has made revision.

---

**Comment O5:**

Page 3, Chapter 1-Introduction, Paragraph 5.

“As a result of amendments ~~being proposed~~ to SCAQMD’s ~~New Source Review (NSR)~~ regulations in September 2000, the BACT Guidelines ~~was~~ ~~were~~ ~~ill~~ be separated into two sections: one for **major polluting facilities and another for non-major (minor polluting facilities)**. (See Chapter 2 in the Overview for how to determine if a facility is major or minor).”

The use of different terms to describe a minor source (e.g. non-major, minor polluting facilities, minor source, etc.) should be avoided. (OCSD– BACT SRC member)

**Response O5:**

Non-major facility, minor polluting facility and minor source are used interchangeably in the BACT Guidelines.

---

**Comment O6:**

Page 4, Chapter 1- Introduction, Paragraph 1.

“In order to distinguish between BACT for ~~major sources and BACT for minor~~ **various** sources, this document will use the following nomenclature for BACT:”

Explain what this means. (OCSD– BACT SRC member)

**Response O6:**

This statement clarifies definitions for LAER, minor source BACT (MSBACT) and greenhouse gas BACT (GHG BACT). The definitions are dependent on the type and amount of emissions.

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**Comment O7:**

Page 4, Chapter 1- Introduction.

“LAER for BACT at major polluting facilities”

Also need PSD BACT for BACT at Major Sources. (Sierra Research– BACT SRC member)

**Response O7:**

PSD BACT has been addressed in Chapter 1, page 1 of the Overview section.

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**Comment O8:**

Page 5, Chapter 2, Major Polluting Facility Emission Thresholds, Paragraph 1.

“A facility is a major polluting facility (or a major stationary source as it is called in the federal Clean Air Act [CAA]) if it emits, or has the potential to emit (PTE), a criteria air pollutant at a level that equals or exceeds emission thresholds **specified** ~~given~~ in the CAA **based on the attainment or nonattainment status.** Table 1 **presents** ~~shows~~ those emission thresholds for each criteria air pollutant for each air basin in the SCAQMD.”

Recommend edits as shown. (WSPA– BACT SRC member)

**Response O8:**

Staff agrees and has made revisions.

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**Comment O9:**

Page 5, Chapter 2, Major Polluting Facility Emission Thresholds, Paragraph 1.

“**Although Table 1 is part of determining GHG BACT applicability,** Table 1 does not include emission thresholds that trigger GHG BACT for SCAQMD Rule 1714 and 40 CFR 52.21. Subpart E of the Guidelines should be referenced for a detailed explanation of how GHG BACT emission thresholds are determined.”

The first Part of the statement is not correct; Table 1 shows non-attainment new source review (NANSR) thresholds, and not PSD thresholds. The latter are related to GHG PSD applicability, but not the former. In addition, should you be adding PM<sub>2.5</sub> thresholds to Table 1? (Sierra Research – BACT SRC member, OCSD– BACT SRC member)

**Response O9:**

Staff agrees and has made revisions. To be consistent with federal requirements staff has also updated the threshold levels for SO<sub>x</sub> to 70 tons/year for the SCAB and Riverside County Portion of Salton Sea Air Basin.

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**Comment O10:**

Page 5, Chapter 2, Major Polluting Facility Emission Thresholds, Paragraph 2.

“A facility includes all sources located within contiguous properties owned or operated by the same person, or persons under common control. Contiguous means in actual contact or separated only by a public roadway or other public right-of-way. However on-shore crude oil and gas production facilities under the same ownership entitlement must be included with offshore crude oil and gas production facilities located in Southern California Coastal or Outer Continental Shelf waters.”

Similar to my previous comment, I recommend that the guidelines be structured to differentiate between SCAQMD policy, State, and federal requirements.

(LADWP– BACT SRC member)

**Response O10:**

The Overview section is designed to provide an introduction to the BACT Guidelines and a summary of how BACT is implemented in the SCAQMD. Applicable SCAQMD, State and federal requirements are addressed within the respective five chapters of the Overview.

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**Comment O11:**

Page 6, Chapter 2, Table 1.

Add PM<sub>2.5</sub> thresholds here. (LADWP)

Table 1 should be revised to include PM<sub>2.5</sub>. (WSPA– BACT SRC member)

**Response O11:**

Staff agrees and has included revisions. To be consistent with federal requirements staff has also updated the threshold levels for SO<sub>x</sub> to 70 tons/year for the SCAB and Riverside County Portion of Salton Sea Air Basin.

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**Comment O12:**

Page 8, Chapter 2, Potential to Emit.

**“The PTE must include fugitive emissions associated with the source. RECLAIM emission allocations are not considered emission limits because RECLAIM facilities may purchase RTCs and increase their emissions without modifying the permit.”**

This statement is not universally correct for PSD applicability. For PSD purposes, fugitive emissions are included only for source categories specifically identified in (40CFR) 52.21. (Sierra Research– BACT SRC member)

**Response O12:**

Staff agrees and has included revisions for major sources.

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**Comment O13:**

Page 8, Chapter 2, Potential to Emit.

Do these guidelines apply to RECLAIM facilities? If not, I suggest deleting this.

(OCSD– BACT SRC member)

**Response O13:**

Yes, Rule 2005 sets forth pre-construction New Source Review requirements for facilities subject to the RECLAIM program for new or modifications which increase their allocations. BACT will apply to every emission source located at a RECLAIM facility.

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**Comment O14:**

Page 9, Chapter 3, “Pollutants Subject to NSR, PSD and BACT”.

“AND BACT” should be deleted. (OCSD– BACT SRC member)

**Response O14:**

Under this section references are made to pollutants that are subject to BACT, therefore the text “and BACT” will be remain for consistency.

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**Comment O15:**

Page 9, Chapter 3, Pollutants Subject to NSR, PSD and BACT, Paragraph 2.

“Therefore, SO<sub>x</sub>, and NO<sub>x</sub> are treated as non-attainment air pollutants as well, **including ozone.**”

This phrase doesn’t add anything to this sentence. Suggest deleting it. (Sierra Research–BACT SRC member)

Suggest deletion of “including ozone.” (LADWP– BACT SRC member)

This does not belong here. (WSPA)

**Response O15:**

Staff agrees and has included revisions.

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**Comment O16:**

Page 9, Chapter 3, Pollutants Subject to NSR, PSD and BACT, Paragraph 2.

The net results is that **VOC, NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub>**, are subject to NSR in all of SCAQMD, while **CO** is only subject to NSR in the South Coast Air Basin (SOCAB).

PM<sub>2.5</sub>? (LADWP– BACT SRC member)

**Response O16:**

Staff agrees and has included revision to add PM<sub>2.5</sub>. During review of this comment, staff also realized that the statement “CO is only subject to NSR in the South Coast Air Basin,” is no longer applicable since CO is now in attainment. This phrase has been removed. CO is now subject to the PSD requirements. NSR applicability for CO has also been removed from Table 3 in Chapter 3 of the Overview section. To be consistent with federal requirements staff has also updated the threshold levels for SO<sub>x</sub> to 70 tons/year for the SCAB and Riverside County Portion of Salton Sea Air Basin.

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**Comment O17:**

Page 9, Chapter 3, Pollutants Subject to NSR, PSD and BACT, Paragraph 2.

Should CO be only subject to PSD as CO is in attainment of the standard?

(LADWP– BACT SRC member)

**Response O17:**

Staff is in agreement and has made the revisions discussed in Response O16.

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**Comment O18:**

Page 9, Chapter 3, Pollutants Subject to NSR, PSD and BACT, Paragraph 3:

“The South Coast Basin has historically had a persistent CO problem.”

Suggest rewording the sentence to read, “The South Coast Air Basin has historically been designated nonattainment for CO”. (LADWP– BACT SRC member)

**Response O18:**

Staff agrees and has included revisions.

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**Comment O19:**

Page 9, Chapter 3, Pollutants Subject to NSR, PSD and BACT, Paragraph 4.

“Similar to the Regulation XIII NSR requirements, precursors to attainment air contaminants, would also be treated as attainment air contaminants, **unless they also qualify as a nonattainment air contaminant, or nonattainment precursor as well. As explained in the SCAQMD Staff Report for Regulation XVII dated September 28, 1988.**”

This is not consistent with federal PSD rules. For example, in an ozone nonattainment area, NO<sub>x</sub> may be regulated under NANSR (Non-Attainment New Source Review) as an ozone precursor, and under PSD as a Precursor to the attainment pollutant NO<sub>2</sub>. (Sierra Research– BACT SRC member)

**Response O19:**

Staff agrees and has made revision.

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**Comment O20:**

Page 9, Chapter 3, Pollutants Subject to NSR, PSD and BACT, Paragraph 4.

**“As explained in the SCAQMD Staff Report for Regulation XVII dated September 28, 1988, the PSD BACT requirement is applicable to all permit units regardless if the source is classified as a minor or major facility.”**

This is not quite correct; the BACT requirement applies to new major sources, significant increases at existing major sources, and specified modifications that are not significant increases. (See Rule 1701(b).) (Sierra Research– BACT SRC member)

**Response O20:**

In accordance with The applicability of Rule 1701 has three criteria. First, for BACT Rule 1701(b)(1), states “The BACT requirement applies to a net emission increase of a criteria air contaminant from a permit unit at any stationary source.”—Second, applicability of PSD for stationary sources and thirdly definition of a major stationary source with a significant increase. In addition, the BACT requirement which applies to any permit unit is further clarified in the staff report dated 8/25/88 for the 9/28/88 Board adoption of Regulation XVII. It states that “Except for the BACT requirement, which applies to any permit unit, this regulation is only applicable to new or existing major stationary sources.”

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**Comment O21:**

Page 9, Chapter 3, Pollutants Subject to NSR, PSD and BACT, Paragraph 4.

BACT for minor sources would be different from BACT for major sources so this sentence could cause confusion. Perhaps this statement can be clarified. (LADWP)

**Response O21:**

Please see response O20.

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**Comment O22:**

Page 10, Chapter 3, Pollutants Subject to NSR, PSD and BACT, Paragraph 5.

“BACT for Pb will be BACT for PM<sub>10</sub> or compliance with Rules 1420 or, 1420.1, or 1401.2, whichever is more stringent.”

Why is this declaration being made here? Such guidance would be saved for the source specific guidelines or case-by-case determinations of BACT. (WSPA– BACT SRC member)

**Response O22:**

This language is part of Chapter 3 of the Overview to clarify the relation between lead (Pb) and PM<sub>10</sub> BACT. Pb is a criteria pollutant that is a particulate and is typically controlled in a similar manner to PM<sub>10</sub>.

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**Comment O23:**

Page 12, Chapter 3, Table 3.

**“Applicability of NSR and BACT to Various Pollutants in South Coast Air Basin (SOCAB), Salton SEA Air Basin (SSAB), and Mojave Desert Air Basin (MDAB)”**

This table has gotten confusing with the addition of PSD requirements to the Guideline. I’d suggest having two tables- one showing NANSR (of NSR) applicability, you also need to add GHGs to these tables, (Not applicable to NANSR; applicable to certain PSD projects. (Sierra Research– BACT SRC member)

**Response O23:**

PM<sub>2.5</sub> column was added to Table 3. Staff has also included clarifying language regarding PSD and GHG applicability.

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**Comment O24:**

Page 12, Chapter 3, Permit Actions Subject to NSR, PSD and BACT.

BACT and LAER applicability are determined within NSR and PSD. No need to list it here. (WSPA– BACT SRC member)

**Response O24:**

As part of the Overview, a brief summary of BACT and LAER applicability was deemed appropriate by staff.

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**Comment O25:**

Page 12, Chapter 3, Permit Actions Subject to NSR, PSD and BACT, Paragraph 5.

“It is SCAQMD policy that BACT is required only for **emission increases greater than or equal to one (1.0) pound per day.**”

For sake of clarity, should state “uncontrolled” emission increase. (OCSD– BACT SRC member)

**Response O25:**

Uncontrolled emission increase would apply only to new sources or modified sources without control equipment. BACT applicability for emission increases from new or modified sources is determined in accordance with Rule 1306(d).-

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**Comment O26:**

Page 12, Chapter 3, Calculation Procedures for Emission Increases, Paragraph 1.

“The calculation procedures for determining whether there is an increase in emissions from an equipment modification that triggers BACT are different for NO<sub>x</sub> and SO<sub>x</sub> pollutants from RECLAIM facilities ~~and~~ than for all other cases. In general, the calculation procedures for RECLAIM facilities are less likely to result in an emission increase that requires BACT.”

See my previous comments regarding the BACT guidelines’ applicability to RECLAIM facilities. (OCSD– BACT SRC member)

**Response O26:**

SCAQMD Rule 2005 sets forth pre-construction New Source Review requirements for facilities subject to the RECLAIM program for new sources or modified sources which increase their allocations. BACT will apply to every emission source located at a RECLAIM facility.

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**Comment O27:**

Page 14, Chapter 4, NSR Rules.

Each of these sections (i.e. NSR Rules, etc.) should start with an explicit reference to the applicable rule in the SCAQMD Rules and Regulations and direct the reader to that Rule for details. These summaries run the risk of oversimplifying or conflicting with the adopted rule language especially as those rules are amended from time to time. (WSPA–BACT SRC member)

**Response O27:**

Staff agrees and has included revisions.

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**Comment O28:**

Page 14, Chapter 4, PSD Rules.

**Pursuant to Rule 1701, the BACT requirement applies to a net emission increase from a permit unit located at minor and major stationary sources.** The intention of the PSD requirements is to implement a similar requirement as Regulation XIII to maintain national ambient air quality standards for attainment air contaminants.

This is not correct; Rule 1701 limits applicability to federal major sources, and specified modifications to federal major sources. (Sierra Research – BACT SRC member)

Rule 1701 appears to apply to major stationary sources only. With respect to the last sentence, NSR rules apply to nonattainment emissions so recommend this sentence be clarified. (LADWP– BACT SRC member)

This is incorrect. Rule 1701 limits applicability to federal major sources, and specified modifications to federal major sources. (WSPA– BACT SRC member)

**Response O28:**

Please see response O20.

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**Comment O29:**

Page 16, Chapter 5, Scientific Review Committee (SRC).

“The overall purpose of the Scientific Review Committee (SRC) is to:

- Comment on proposed new ~~&~~and more stringent BACT determination in permit applications under 30-day public review.”

Is this a new step in the process? Will the SRC be tasked to review permit applications during the 30-day public review? (LADWP– BACT SRC member)

**Response O29:**

No, this is not a new step in the process for review of new and more stringent BACT determinations. From time to time the BACT SRC has traditionally been tasked with reviewing BACT determinations which have been based on achieved in practice permitted equipment with the permit application as supporting documentation.

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**Comment O30:**

Page 17. Chapter 5, Meeting with SCAQMD Management.

“Managers and the Assistant Deputy Executive Officers are **empowered** to make case-by-case decisions on an individual permit. Further review can be obtained through a meeting with the Deputy Executive Officer (DEO) of Engineering and Compliance. Ultimately, all permitting decisions are the responsibility of the Executive Officer.”

Suggest replacing “empowered” with “authorized” (OCSD– BACT SRC member)

**Response O30:**

Staff agrees and has included revision.

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**Comment O31:**

Page 18, Chapter 5, The SCAQMD Governing Board.

“Any applicant may petition the SCAQMD Governing Board to review a pending application pursuant to SCAQMD Regulation XII and Health and Safety Code Section 40509. **While the Governing Board had the authority to hear and consider any pending permit application, it has rarely done so. ~~but this circumstance is extremely rare and cases has only agreed to consider two pending permit applications in the last sixteen years are typically handled during the prior stages.~~**”

What’s the purpose of this statement? I suggest deleting it. ( ??)

**Response O31:**

Staff agrees and has included revision.

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**Comment O32:**

Page 4, Chapter 1, Introduction

“GHG BACT for BACT at facilities subject to PSD GHG requirements”

While you indicated that BACT for PSD is addressed on page 2 (and it is), there remains potential confusion regarding terminology in the list of shorthand notations you create at pp. 3-4.

Suggest the following: PSD~~GHG~~ BACT for BACT at facilities subject to PSD~~GHG~~ BACT requirements for criteria pollutants

(Sierra Research– BACT SRC member)

**Response O32:**

Staff agrees and has included revision.

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**Comment O33:**

Page 6, Chapter 2, Table 1

Page 6, Table 1: should the threshold for PM2.5 be 70 tpy instead of 100 tpy? (See footnote 3 on that page.) (Sierra Research– BACT SRC member)

**Response O33:**

Staff agrees and has included revision.

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**Comment O34:**

Page 9, Chapter 3, paragraph 3

It is stated that "Therefore, CO is no longer a nonattainment pollutant, since the state standard for CO is the same as the federal." I believe we are talking about State AAQS and NAAQS. As I understand, 1-hour average CO state AAQS is lower than 1-hr average NAAQS. Please clarify. (Public member)

**Response O34:**

Staff agrees and has included revision stating that CO is in attainment with state and federal ambient air quality standards.

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**Comment O35:**

Page 13, Chapter 3, possible cases

Not clear how to identify the BACT requirement for CO emissions for a facility which was permitted before SCAB became CO attainment, and modifications are being proposed now. Since we are now in attainment for CO, Reg XIII NSR analysis for CO emissions will not apply. It appears that Case 1 (described on page 13) may apply in this case. In addition, BACT analysis will be required only if emission increases by more than 1 lb/day (see page 12 of Section 3. (Public member)

**Response O35:**

Regulation XVII – Prevention of Significant Deterioration sets forth BACT requirements for stationary sources that emit attainment air contaminants such as CO. The BACT requirement applies to any net emission increase of an attainment criteria pollutant from a permit unit at any source.

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**Comment O36:**

General comment

As discussed at the last BACT Scientific Review Committee (SRC) meeting, it would be helpful to update the BACT Guidelines to improve the clarity of this document and to update the major source BACT determinations. It is our understanding that such an effort will be made immediately after the adoption of the proposed update, which is only focused on incorporating existing requirements.

(Southern California Alliance of Publicly Owned Treatment Works (SCAP))

**Response O36:**

Yes, staff is committed with the ongoing development of a clear, user friendly BACT Guidelines with updates to both major and minor source BACT determinations. After the current amendment, staff intends to meet with SCAQMD Engineering and Permitting and SCAQMD management to discuss recommendations and establish priorities for potential new BACT and LAER listings for subsequent BACT amendments. The clarity of the document, as well as overall BACT group operational improvements will be addressed in parallel with these efforts.

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**Comment O37:**

BACT SRC Meeting

During the May 11, 2016 BACT SRC meeting, a public member commented about the availability of information, and by not having current information it wastes a lot of time, and also that full disclosure needs to occur. (Public Member)

**Response O37:**

During the meeting staff responded that BACT is a dynamic process and what the commenter stated is in line with staff's plan, but prioritization needs to occur. Staff would like to expand on the explanation of the process. Staff agrees that not having the current information is a burden to staff's and the public's time to determine what BACT is for a piece of equipment. Staff is dedicated to making the BACT Guidelines current, as well as making new and more stringent BACT determinations. The prioritization was in reference to meeting with SCAQMD permitting staff and management to prioritize BACT staff's approach by analyzing relevant sources with new technologies for BACT that is in the permitting process. This current round of BACT Guidelines updates was necessary to address parts of the Guidelines that had become outdated, and to add applicable requirements that had been adopted since the last update. Once a prioritization is set, staff intends to moves forward with analyzing potential BACT and LAER determinations for more stringent requirements. After a potential BACT Determination is vetted, staff then presents that proposal to the public and the BACT SRC for discussion and comment. Staff also accepts recommendations from the public for other potential BACT determinations for analysis. Minor Source BACT is also required by California Health and Safety Code 40440.11, to be presented and approved by the Governing Board in a public process. Staff appreciates the time the public and the BACT SRC members have dedicated to this process, and encourages all public members to continue to participate in the BACT Guideline process.

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**Comment O38:**

BACT SRC Meeting

During the May 11, 2016 BACT SRC meeting, a public member stated he supported having cost-benefit analyses performed whenever there is a question of viability of a technology so there is not an extra strain on the business and economy, but the formula of feasibility doesn't include all cost factors. (Public Member)

**Response O38:**

During the meeting staff responded that the BACT process can incorporate all cost considerations in accordance with the H&S code but if the technology will impact the environment SCAQMD will look at that as well. In addition, H&SC 40440.11 calls for identifying alternative technologies that would meet BACT requirements. Staff wishes to expand on this explanation. Regarding environmental impacts of a BACT determination, if staff proposes a new and more stringent BACT determination, then the proposal will need to undergo a CEQA analysis that will address potential environmental impacts. Regarding cost factors, a list of cost factors is presented in Chapter 1, Part C of the Guidelines that includes capital and operating costs. In this section it is stated that “the cost of controlling secondary emissions and cross-media pollutants caused by the primary MSBACT requirement should be included in any required cost effectiveness evaluation of the primary MSBACT requirement.”

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## Part A

### **Comment (BACT SRC Meeting) A1:**

A committee member mentioned that for major source LAER determination cost is not a consideration but facilities still have to do cost-effective analysis, which the guidelines don't specify. Can facilities use the minor source guidelines for cost effectiveness. (Ramboll-Environ – Public member; OCSD, Sierra Research-BACT SRC members)

### **Response A1:**

Staff stated that in accordance with the BACT Guidelines, U.S. EPA guidelines do not allow for routine consideration of the cost of control in LAER determinations. However, the guidelines state that LAER is not considered achievable if the cost of control is so great that a new source could not be built or operated with a particular control technology. If a major polluting facility needs to perform a cost effectiveness analysis for informational or other purposes, the minor source guidance can be useful tool to conduct the analysis. However, a different analysis may be needed to demonstrate the limited cost-exception to LAER.

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### **Comment (BACT SRC Meeting) A2:**

A public member stated that when the technology changes right before you get your permit, what are the options? (Member of the public)

### **Response A2:**

Staff stated that in accordance with the BACT Guidelines, once a minor source BACT determination is made at the time for an application is deemed complete, at the time of completion of a permit to construct it cannot be changed for a year. However, for major sources, federal LAER is determined at the time of permit issuance. Refer to the discussion in Comment O3 for LAER requirements. It is also true that requirements for a new or modified major source under applicable rules could change between the time the application is deemed complete and the permit decision.

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### **Comment A3:**

Page 21, Chapter 1, Regulatory Documents.

“An emission limit or control technology may be considered achieved in practice (AIP) for a category or class of source if it exists in any of the following regulatory documents or programs:

- SCAQMD BACT Guidelines
- CAPCOA BACT Clearinghouse
- USEPA RACT/BACT/LAER Clearinghouse
- Other districts’ and states’ BACT Guidelines
- BACT/LAER requirements in New Source Review Permits issued by SCAQMD or other agencies”

These documents are not easily accessible and the completeness is questionable. The complete documents should be easily accessible for facilities to include them in their engineering design process before the application submittal. Ultimately, who is responsible for determining what is BACT? (OCSD- BACT SRC member)

**Response A3:**

These documents and programs represent the traditionally referenced sources for achieved in practice BACT which are readily available on line on the SCAQMD BACT webpage. In the SCAQMD, BACT is determined in accordance with the BACT Guidelines which includes case-by-case BACT determinations by permit engineering.

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**Comment A4:**

Page 21, Chapter 1, New Technologies/Emission Levels; Commercial Availability.

“**At least one vendor** must offer this equipment for regular or full-scale operation in the United States. A Performance warranty or guaranty must be available with the purchase of the control technology, as well as parts and service.”

This could potentially trigger a sole source procurement which for public agencies require strict justification. (OCSD- BACT SRC member)

**Response A4:**

For our agency, as well as other public agencies, it is common to have a procurement policy which provides and allows for justification when the desired services are available from only a sole source.

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**Comment A5:**

Page 21, Chapter 1, New Technologies/Emission Levels; Reliability.

“All control technologies must have been installed and operated reliably for at least six months. If the operator did not require the basic equipment to operate daily, then the equipment must have at least 183 cumulative days of operation.”

The reliability analysis should also consider the effect of the control technology on the reliability of the basic equipment. (OCSD- BACT SRC member)

**Response A5:**

Staff agrees.

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**Comment A6:**

Page 22, Chapter 1, Federal PM<sub>2.5</sub> New Source Review and SCAQMD Rule 1325.

“A major polluting facility would be a facility located in areas federally designated pursuant to 40 CFR 81.305 as non-**attainment** for the South Coast Air Basin (SOCAB) which has actual emissions of, or the potential to emit, 100 tons or more per year of PM<sub>2.5</sub>, or its precursors.”

“as non-attainment for PM<sub>2.5</sub>”. (Sierra Research- BACT SRC member)

**Response A6:**

Staff agrees and has included revision. To be consistent with federal requirements staff has also updated the threshold levels for SO<sub>x</sub> to 70 tons/year for the SCAB and Riverside County Portion of Salton Sea Air Basin. In addition, the future PM<sub>2.5</sub> major source threshold level is planned to be lowered to 70 tons/year to be consistent with federal standards.

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**Comment A7:**

Page 24, Chapter 1, Technical Infeasibility of the Control Technology.

“A particular control technology may not be required as LAER if the applicant demonstrates that it is not technically feasible to install and operate it to meet a specific LAER emission limitation in a specific permitting situation.”

Suggested addition: “Furthermore, EPA has recognized that a control technology may not be required if it would fundamentally redefine a source proposed to meet a specific business objective”. (WSPA- BACT SRC member)

**Response A7:**

Staff believes current language adequately addresses technical infeasibility of control technology as LAER.

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**Comment A8:**

Page 24, Chapter 1, Process Requirements.

“Some LAER determinations specify a particular type of process equipment. SCAQMD staff may consider requirements of the proposed process equipment that would make the LAER determinations not technically feasible.”

This sentence is confusing. LAER must be technically feasible. (WSPA- BACT SRC member)

**Response A8:**

Staff believes current language adequately addresses the requirement for process equipment to be technically feasible.

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**Comment A9:**

Page 25, Chapter 1, Other Considerations.

“Although multiple process and control options may be available during the LAER determination process, considerations should be made for options that reduce the formation of air contaminants from the process, as well as ensuring that emissions are properly handled. In addition to evaluating the efficiency of the control stage, these additional considerations are needed to ensure that the system is capable of reducing or eliminating emissions from the facility on a consistent basis during the operational life of the equipment.”

Suggested addition: “This policy is subject to the provisions of H&SC 40440.11.” This provision precludes the adoption of LAER that would require a change to the “basic production or process equipment.” The same caveat applies to the “Pollution Prevention” discussion in the next paragraphs. (Sierra Research- BACT SRC member)

Suggested addition: “This policy is subject to the provisions of Health & Safety Code section 40440.11. (WSPA- BACT SRC member)

**Response A9:**

In accordance with the discussion of H&SC Section 40440.11 in Chapter 1 of Part C of the BACT Guidelines, the requirements of this section are incorporated into establishing new minor source BACT determinations where federal LAER is no longer applicable. H&SC 40440.11 applicability to a section under Part A- Policy and Procedures for Major Polluting Facilities would not be in line with federal requirements in establishing LAER for major polluting facilities.

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**Comment A10:**

Page 25, Chapter 1, Pollution Prevention.

“improvements in housekeeping, maintenance or inventory control, that reduce the amount of air contaminants entering any waste stream of otherwise released into the environment, including fugitive emissions.”

Suggested addition: “This policy is subject to the provisions of Health & Safety Code section 40440.11. (WSPA- BACT SRC member)

**Response A10:**

See Response A9.

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**Comment A11:**

Page 26, Chapter 1, Monitoring and Testing.

“In order to ensure that LAER determinations continue to meet their initial emission and efficiency standards, periodic or continuous parameter monitoring and testing requirements may be **implemented** during the permitting process.”

“required,” not “implemented”. (Sierra Research- BACT SRC member, WSPA- BACT SRC member)

**Response A11:**

Staff agrees and has included revision.

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**Comment A12:**

Page 27, Chapter 1, LAER Update Process, Paragraph 3.

“Whenever permitting staff makes a LAER determination that is more stringent than what SCAQMD has previously required as LAER, the permit to construct **may be** subject to a public review.”

What “may” trigger the public review? (OCSD- BACT SRC member)

**Response A12:**

A permit to construct may be subject to a public review per Rule 212(c) for being located near a school, increase health risk or emission increases exceeding the thresholds in Rule 212(g).~~In accordance with the BACT Guidelines, the permit to construct for equipment or process that is implementing a more stringent LAER determination than what was previously required by SCAQMD.~~

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**Comment A13:**

Page 28, Chapter 1, Clean Fuel Requirements, Paragraph 1.

Clean Fuel Requirements – Electrification should not be included in this section until it has been demonstrated as BACT for specific categories of equipment and industries. Additionally. This policy is subject to the provisions of Health & Safety Code section 40440.11. (WSPA- BACT SRC member)

**Response A13:**

Natural gas was included in the BACT Guidelines as a clean fuel option to diesel as originally identified in the Clean Fuels Policy. Similarly, as part of the original Clean Fuels Policy electrification was also identified, and as result, Industrial Electrification is being included by staff, subject to engineering feasibility and the major source BACT/LAER determination criteria in Part A, Chapter1 of the BACT Guidelines. For minor source BACT please refer to response C6.

Regarding the applicability of Health and Safety Code 40440.11 to the Clean Fuel Requirements section of Part A, please refer to Response A9.

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**Comment A14:**

In the proposed Clean Fuel Requirements, the District has copied verbatim the phrase “Industrial electrification (e.g. replacement of I.C Engines etc.)” from the December 15, 1987 Governing Board document titled “Recommendation to Adopt a Five-Year Clean Fuels Program” and inserted into the May 4, 2016 draft revised BACT Guidelines without providing any analysis regarding this language/amendment and how or why it is pertinent or applicable now (versus back in 1987-88). Industrial electrification, as discussed within the 1987 document, was part of the 1987-88 District’s Clean Fuels Program strategy to replace conventional petroleum fuels, particularly diesel fuel, with alternative fuels for (particularly) mobile and stationary sources. As the basin’s air quality is much improved today, air quality challenges are much different now than in the late 80’s and 90’s, with the advent of greenhouse gas and climate change programs in California, it seems prudent that this proposed inclusion of “Industrial Electrification” be evaluated under today’s challenges and air quality programs and strategies, and the District’s position regarding fuel neutrality.

While electrification has always been an option for consideration by the District and the regulated community, SoCalGas believes the current proposal to insert “Industrial Electrification” into the existing BACT Clean Fuel Requirements, and verbatim from a nearly 30 year old document, deserves some analysis and discussion, including its pertinence today and the specific language of the proposed amendment. While SoCalGas understands the District’s goal to have these current BACT updates, including the update of the BACT Guidelines Clean Fuels Requirements, go before the Governing Board as early as July. SoCalGas believes it would be prudent for staff to take the time necessary to provide both the opportunity for public discussion for this proposed amendment and adequate analysis and data to support such discussion. As staff has noted that there will be additional BACT updates in the near future, SoCalGas believes there will be ample opportunity for the District to propose a future amendment to the BACT Guidelines Clean Fuel Requirements should this amendment not be included in the current BACT update. (Southern California Gas Company- BACT SRC member)

**Response A14:**

Natural gas was included in the BACT Guidelines as a clean fuel option to diesel as originally identified in the Clean Fuels Policy. Similarly, as part of the original Clean Fuels Policy electrification was also identified, and as result, Industrial Electrification is being included by staff, subject to engineering feasibility and the major source BACT/LAER determination criteria in Part A, Chapter 1 of the BACT Guidelines. For minor source BACT please refer to response C6.

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**Comment A15:**

Page 28, Chapter 1, Clean Fuel Requirements, Paragraph 1.

Additionally, SoCalGas Requests that the District provide discussion and analysis regarding whether this proposal is exempt from, or otherwise does not require, an analysis under the California Environmental Quality Act (CEQA). As proposed, the amendment to the Clean Fuel Requirements in the BACT Guidelines specifically calls out the industrial equipment as one example that could be targeted. SoCalGas believes that the District should provide input to the public and regulated community regarding whether this proposed amendment could be significant or not (or is otherwise exempt) under CEQA). (Southern California Gas Company- BACT SRC member)

**Response A15:**

Industrial electrification was part of the original 1989 Clean Fuels Policy (CFP) that was previously adopted into the BACT Guidelines. However, a review of the original document indicated that industrial electrification was a component of the CFP that was not included in the original Clean Fuel Requirements section of the BACT Guidelines. The proposed addition of the statement regarding industrial electrification into the Clean Fuels Requirements section of the BACT Guidelines will correct this omission and maintain consistency with state and federal requirements. Since the proposed amendments are only updating the BACT Guidelines with current, already existing requirements, it can be seen with certainty that the proposed project has no potential to adversely impact air quality or any other environmental topic area. As such, the proposed project is statutorily exempt from CEQA pursuant to CEQA Guidelines §15061(b)(3) ~~and categorically exempt from CEQA pursuant to CEQA Guidelines §15308.~~

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**Comment A16:**

Page 28, Chapter 1, Clean Fuel Requirements, Paragraph 2.

“The use of these fuels must meet the requirements of SCAQMD rules limiting NOx and sulfur emissions.”

Suggested addition: This policy is also subject to the provisions of Health & Safety Code section 40440.11. (WSPA- BACT SRC member)

**Response A16:**

Refer to Response A9.

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**Comment A17:**

Page 30, Chapter 2.

“The above ~~six sections~~ information will enable permit applicants to assess the applicability of each LAER/BACT determination to their particular equipment.

The LAER requirements usually found in section 5A of the LAER Determination listings are in the form of:

- An emission limit;
- A control technology;
- Equipment; or
- A combination of the last two.”

Please add a bullet for work practice requirements. (LADWP- BACT SRC member)

**Response A17:**

Staff agrees that work practice requirements are considered to be part of LAER/BACT requirements, but it is currently considered part of the “Control Technology Comment~~equipment requirements~~” category. Staff is in the process of developing a new BACT Determination Form and will be addressing this topic in the Form, and will consider adding work practice requirements to this list in future updates.

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**Comment A18:**

Page 28, Chapter 1, Clean Fuel Requirements, Paragraph 1.

Proposed the following language: “Besides natural gas, other clean fuels are ~~methanol,~~ liquid petroleum gas (LPG), ~~and~~ hydrogen and electricity. ~~Industrial electrification (e.g., replacement of I.C. Engines, etc.) is~~ Utilization of zero and near-zero emission technologies are also integrated in the Clean Fuels Policy.

(Southern California Gas Company- BACT SRC member)

**Response A18:**

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Staff agrees and has included revision.

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**Comment A19:**

Page 28, Chapter 1, Clean Fuel Requirements, Paragraph 1.

WSPA appreciates the District's responses to our June 13, 2016 letter as well as the September 27, 2016 meeting to discuss our remaining concerns. Based on the discussion regarding clean fuels, WSPA supports your suggestion to remove the word "Requirements" from the title, "Clean Fuel Requirements" and replace it with "Guidance".

Additionally, WSPA supports the following language modifications to pages 28 and 41 of the October 2016 draft of the BACT Guidelines:

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**Comment A20:**

Page 28, Ch. 1, Clean Fuels Requirements

"Besides natural gas, other clean fuels are ~~methanol, liquid petroleum gas (LPG), and~~ hydrogen, and electricity. Utilization of zero and near-zero emission technologies are ~~Industrial electrification (e.g., replacement of I.C. Engines, etc.)~~ is also integrated into the Clean Fuels Policy." (WSPA – BACT SRC member)

**Response A20:**

Staff agrees and has replaced "Requirements" with "Guidance". Staff also agrees with suggested Clean Fuels language, however "gas (LPG)" will be retained for consistency.

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**Comment A21:**

Page 25, Ch. 1, Pollution Prevention

Thanks for the opportunity to comment on the Oct. 7 version of the BACT Guidelines. LADWP has the following concerns related to the proposed inclusion of pollution prevention as a control option for consideration in the BACT/LAER standard-setting process.

First, the federal Clean Air Act (CAA) contains a detailed and lengthy definition of BACT that makes no reference to pollution prevention as a control measure that must be considered in setting the technology-based performance standard (CAA Section 169(3)). Rather, the statutory definition only makes reference to the “application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.” By including reference to the Pollution Prevention Act of 1990, SCAQMD is adding an extra step to the BACT-standard setting process that is not required by the federal CAA by requiring the consideration of pollution prevention and source reduction projects. Although SCAQMD has authority to do so, SCAQMD has not provided any justification or need to go beyond statutory requirements, particularly given that for the pollutants of concern (such as NOx and PM), the nonattainment requirements for lowest achievable emission limit (LAER) also apply. LAER requires the permit authority to set the emission limit at the lowest level that has been set for any similar source by any state or has been achieved in practice (CAA Section 171(3)).

Second, the definition of pollution prevention and source reduction is very broad and includes projects “that reduce amount of air contaminants entering any waste stream or otherwise released into the environment.” It could, for example, require SCAQMD (as well as the permit applicant) to survey of all possible pollution prevention and source reduction projects and then demonstrate why these possible projects should be eliminated as an emissions control option. To avoid having to deal with this issue, SCAQMD should add clarifying language that excludes projects that redefine the source if pollution prevention must be included in the BACT guidelines. (LADWP – BACT SRC Member)

### **Response A21:**

Staff acknowledges the comment requesting clarification of pollution prevention measures and will propose adding language to specify that pollution prevention measures are not required to include measures that will fundamentally redefine a source in Parts A and C. The Pollution Prevention subsection is located under the “Other Considerations” section to complement the “Special Permitting Considerations” section and is not intended to apply to every permit evaluation. These other considerations are items that may be implemented to allow for different permitting scenarios. Similarly, as an example, the “Super Compliant Materials” under the “Special Permitting Considerations” subsection does not require every source to use Super Compliant Materials, but it is intended to provide another method to achieve emissions reductions to comply with BACT requirements. Pollution Prevention is not a separate, additional step under the Top-Down process. Pollution Prevention measures should be considered under Step 1 of

the Top-Down Process, “Identify all control technologies,” which is specified to include production process methods and techniques. Pollution Prevention measures identified in Step 1 shall continue to Step 2 of the Top-Down Process with the other available options. In addition, for minor sources, Pollution Prevention measures are subject to the requirements of California Health and Safety Code 40440.11 which has been proposed to be specified in the “Other Considerations” section in Part C of the BACT Guidelines.

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**Comment A22:**

Page 28, Chapter 1, Clean Fuel Requirements

As discussed at the last SRC meeting, the Clean Fuel Requirement provision is rather confusing by interchanging the terms “Policy”, “Requirement” and “Guidelines”. SCAP understands that the purpose of the BACT Guidelines is to provide general guidance regarding major and minor source BACT. Accordingly, the term “requirement” should be replaced by “guideline” throughout the entire document. (SCAP)

**Response A22:**

Staff agrees and has included revision to replace “requirement” with “guidelines” where appropriate.

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**Comment A23:**

Page 28, Chapter 1, Clean Fuel Requirements

Considering the Clean Fuels Program was adopted by the Governing Board in 1988, the SRC should revisit this provision in its entirety. For example, the December 15, 1997 recommendation to adopt a Five-Year Clean Fuels Program was clearly a program intended for a limited duration. Moreover, the Governing Board adopted an Energy Policy in 2011, which should supersede the outdated Clean Fuels Program. Rather than performing a complete revision of the Clean Fuel Requirement at this time, it is recommended to remove the term “requirement” as explained above. The subsequent update of the BACT Guidelines should address replacing the outdated Clean Fuel Requirement with a summary of the Energy Policy. (SCAP)

**Response A23:**

Under Section IV- Program Management of the Board Letter dated 12/15/87, which was adopted on 1/8/88, the Board approved a recommendation to adopt an ongoing policy which established clean fuels as BACT based on engineering feasibility. The Clean Fuel Policy and Energy Policy, adopted by the Governing Board on 9/9/11, are two different policies with unique and complementary objectives. As adopted, the Energy Policy was not intended to supersede other policies, rather it was intended to complement policies, guiding principles, and initiatives previously adopted by the Governing Board. Staff looks forward to working with the BACT SRC, stakeholders, regulated community and the public in the review of the Energy Policy and how it could complement the BACT Guidelines. Staff agrees and has included revision to replace “requirement” with “guidelines” where appropriate.

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### **Comment A24:**

#### Page 25, Chapter 1, Pollution Prevention

The draft guidelines indicate that pollution prevention should be considered as part of the LAER and MSBACT determination processes, if the measures will result in the elimination or reduction of emissions. While pollution prevention should be considered by every facility, the Pollution Prevention Act of 1990 (42 U.S.C. §§13101-13109) does not require pollution prevention measures to be implemented without considering feasibility or cost effectiveness. As drafted the major and minor source provisions are vague and do not provide clarity to SCAQMD permit engineers or applicants. Our membership believes that these provisions should be excluded at this time. At minimum, to avoid confusion, the minor source provisions should be removed and the major provisions should be amended as follows:

For purposes of these BACT Guidelines, and to be consistent with federal definitions, source reduction and pollution prevention shall include, **but not be limited to a**

#### **consideration of the feasibility of:**

- equipment or technology modifications,
- process or procedure modifications,
- reformulation or redesign of products,
- substitution of raw materials, or
- improvements in housekeeping, maintenance or inventory control, that reduce the amount of air contaminants entering any waste stream or otherwise released

into the environment, including fugitive emissions, **if deemed to be cost-effective.** (SCAP)

**Response A24:**

Staff acknowledges the comment and will clarify the Pollution Prevention section. The Pollution Prevention subsection is located under the “Other Considerations” section to complement the “Special Permitting Considerations” section and is not intended to apply to every permit evaluation. These other considerations are items that may be implemented to allow for different permitting scenarios. Similarly, as an example, the “Super Compliant Materials” under the “Special Permitting Considerations” subsection does not require every source to use Super Compliant Materials, but it is intended to provide another method to achieve emissions reductions to comply with BACT requirements. Staff will change the wording of the section to state “For purposes of these BACT Guidelines, and to be consistent with federal definitions, source reduction and pollution prevention ~~shall~~ **may include, but not be limited to, a consideration of the feasibility of:**”

It should be noted that Pollution Prevention is not a separate, additional step under the Top-Down process, and therefore any Pollution Prevention measures identified in Step 1 of the Top-Down process will be analyzed for technical feasibility in Step 2. In addition, for minor sources, Pollution Prevention measures are subject to the requirements of California Health and Safety Code 40440.11, which includes cost effectiveness, that has been proposed to be specified in the “Other Considerations” section in Part C of the BACT Guidelines. LAER does not allow for consideration of cost effectiveness in the same manner as minor sources. If a proposed pollution prevention measure is deemed to be technically feasible, then it will be evaluated for the remainder of the Top-Down process prior to a determination for LAER.

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**Comment A25:**

Page 21, Chapter 1, Achieved in Practice LAER

Three proposed LAER determinations are included in draft BACT Guidelines for emergency compression ignition engines and list operating schedules of < 1 hrs/day; 1 days/week; 26 wks/yr. However, the achieved in practice reliability provision states, “All control technologies must have been installed and operated reliably for at least six months. If the operator did not require the basic equipment to operate daily, then the equipment must have at least 183 cumulative days of operation. During this period, the basic and/or control equipment must have operated: 1) at a minimum of 50% design capacity; or 2) in a manner that is typical of the equipment in order to provide an

expectation of continued reliability of the control technology.” If these emergency engines did not conform with the reliability standards, then these determinations should not be included in the updated BACT Guidelines. (SCAP)

**Response A25:**

The control technology (diesel particulate filter) for the three proposed Part B BACT determinations was installed to meet the requirements of SCAQMD Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines, as well as Title 17 California Code of Regulations Section 93115, Airborne Toxic Control Measure for Stationary Compression Ignition Engines, and the engines were issued permits with DPFs to meet those requirements. DPFs are identified in both regulations as a control option and have been established as a reliable control option for diesel PM emissions during the rulemaking process.

Under Part A, Chapter 1, “Achieved in Practice LAER” there are three different headings to establish LAER: Regulatory Documents, New Technologies/Emission Levels, and Technology Transfer. These proposed listings have been issued New Source Review permits with DPF requirements. Two of the permits to operate were issued in 2011 and the third was issued in 2014, and all three engines began service at the same respective times. The commenter is referring to the reliability requirement under the New Technologies/Emission Levels. The reliability provision is in place for the scenario where “New Technologies and innovations of existing technologies occasionally evolve without a regulatory requirement, but still deserve consideration.” The New Technology section is another option to establish LAER in addition to the other two sections. Since the section is for new technologies, a reliability provision is included under this section to ensure the equipment will consistently perform prior to establishing LAER, but the reliability provision does not apply to LAER established under the Regulatory Documents section. In this case, an emission limit is established in Rule 1470 and the Stationary Diesel ATCM, and the equipment identified in the rule was installed to meet that requirement. In addition, SJVAPCD has established the same PM<sub>10</sub> emission limit in their BACT Guidelines for Emergency Diesel IC engines as SCAQMD Rule 1470 and the Stationary CI Engine ATCM that requires the use of DPF. Another item under Regulatory Documents that can establish LAER is another Air District’s BACT Guidelines. Therefore staff is proposing to add the three Emergency IC Engines as LAER due to current regulatory requirements, as well as the SJVAPCD BACT Guidelines.

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**Comment A26:**

Page 26, Chapter 1, Monitoring and Testing

While the inclusion of monitoring and testing requirements at major stationary sources may be required, such provisions can be burdensome for minor sources. Permits should not contain monitoring requirements that are not relevant to air emissions. Moreover, the guidelines should clarify that required monitoring and testing should be feasible standard, industry recognized measurement techniques and test methods. At minimum, as a permit streamlining issue, such provisions tend to unnecessarily complicate and slow the permitting process and should be omitted. SCAP requests that this provision be removed from the minor source provision and the major source provision be modified to omit the operating conditions sentence. (SCAP)

**Response A26:**

The proposed Monitoring and Testing sections under Parts A and C of the BACT Guidelines are not requirements to perform testing. These sections discuss existing monitoring and testing conditions that may be established during the permitting process due to rule requirements and how those requirements may affect BACT determinations. The section is intended to clarify that when monitoring and/or testing are required by permit conditions, that steps should be taken to ensure that resulting BACT determinations consider and identify operating conditions or test methodology of the initial assessment of the equipment, so the same BACT requirement can be properly implemented in the future with consistency. As an example, if inward air flow or differential pressure is measured during the permitting process, then those parameters may be included in the BACT determination form to provide a quantitative measurement of the process. Equally, if applicable, exact source test methods and averaging times should be identified for consistency. A new BACT Determination Form which is being developed allows for these items to be included.

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**Part B**

**Comment B1:**

Page 2, I.C. Engine – Emergency Compression Engine (A/N: 516409), Section 4, Part A  
“BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits on the permit(s) that affects the equipment, Include units, averaging times and corrections (% O<sub>2</sub>, % CO<sub>2</sub>, dry, etc.) For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ration, if applicable.”

Should clarify that these values are EPA certification values (or standards) based on EPA certification test methods. These values may not be achieved during a single-mode field test. (Sierra Research- BACT SRC member)

**Response B1:**

Staff agrees and has made revision.

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**Comment B2:**

Page 2, I.C. Engine - Emergency, Compression Ignition (A/N 516409), Section 4, Part C  
“BASIS OF THE BACT/LAER DETERMINATION: ~~Achieved~~ Achieved in Practice”  
(WSPA- BACT SRC member)

**Response B2:**

Staff agrees and has made revision.

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**Comment B3:**

Page 2, I.C. Engine – Emergency, Compression Ignition (A/N 516409), Section 4, Part D  
EPA certification levels are based on EPA certification test methods. Thus, actual performance in the field may vary. These values should not be used as limits for a compliance source test under conditions varied from that of the EPA certification test protocol. (WSPA- BACT SRC member)

**Response B3:**

Staff agrees and has made revision.

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**Comment B4:**

Page 3, I.C. Engine–Emergency, Compression Ignition (A/N: 516409), Section 5, Part G  
“CONTROL TECHNOLOGY COMMENTS: Permit conditions to regenerate PM filter after every 24 cold engine start-ups of HiBack alarm signal, whichever occurs first. For regeneration run engine until exhaust temp exceeds 57 Deg. F and normal backpressure reading, Engine exhaust temp at inlet to PM filter  $\geq$  572 Deg. F except during cold engine start-up, not to exceed 10 minutes.”

Has the District calculated or accounted for the increased emissions associated with regeneration as compared with the emissions reduced by the DPF?

(Sierra Research- BACT SRC member)

**Response B4:**

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The District has not conducted specific studies on emissions associated with regeneration of DPFs however, CARB has conducted studies on emissions from both active and parked regeneration of a diesel particulate filter from heavy duty trucks. CARB has determined that more information is needed concerning the nature and a clearer understanding of the particulate matter composition, toxicity and exposure potential to better understand possible impacts.

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**Comment B5:**

Page 3, I.C. Engine–Emergency, Compression Ignition (A/N: 516409), Section 6, Part A  
“COMPLIANCE DEMONSTRATED BY: Source test or other method that was used to demonstrate compliance”

Should indicate that compliance is demonstrated through the use of a certified Tier 3, engine in combination with a CARB-verified DPF. (Sierra Research- BACT SRC member)

**Response B5:**

Staff agrees and has made revision.

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**Comment B6:**

Page 2, I.C. Engine–Emergency, Compression Ignition (A/N: 516708), Section 4, Part A  
“BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits on the permit(s) that affects the equipment, Include units, averaging times and corrections (%O<sub>2</sub>, %CO<sub>2</sub>, dry, etc.) For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ration, if applicable.”

Should clarify that these values are EPA certification values (or standards) based on EPA certification test methods. These values may not be achieved during a single-mode field test. (Sierra Research- BACT SRC member)

**Response B6:**

Staff agrees and has made revision.

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**Comment B7:**

Page 3, I.C. Engine–Emergency, Compression Ignition (A/N: 516708), Section 5, Part G

“CONTROL TECHNOLOGY COMMENTS: Permit condition to regenerate PM filter whenever warning signal is received from alarm system. For regeneration run engine until exhaust tem exceeds 464 Deg. F and normal backpressure reading. Engine exhaust temp at inlet to PM filter  $\geq$ 464 Deg. F except during cold engine star-up.”

Has the district calculated and accounted for the increased emissions associated with regeneration as compared with the emissions reduced by the DPF?

(Sierra Research- BACT SRC member)

**Response B7:**

Please see response B4.

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**Comment B8:**

Page 3, I.C. Engine–Emergency, Compression Ignition (A/N: 516708), Section 6, Part A

“COMPLIANCE DEMONSTRATED BY: Source test or other method that was used to demonstrate compliance”

Should indicate that compliance is demonstrated through the use of a certified Tier 2 engine in combination with a CARB-verified DPF. (Sierra Research- BACT SRC member)

**Response B8:**

Staff agrees and has made revision.

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**Comment B9:**

Page 2, Flare, Oil and Gas Operations (A/N538706), Section 4, Part C.

“BASIS OF THE BACT/LAER DETERMINATION: ~~Achieved~~ **Achieved**”

(WSPA- BACT SRC member)

**Response B9:**

Staff agrees and has made revision.

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**Comment B10:**

Page 3, Flare, Oil and Gas Operations (A/N: 538706), Section 6, Part D.

“COLLECTION EFFICIENCY PARAMETERS: 99.9+% **destruction** for VOC and BTEX”

Line 6D is for collection efficiency, not destruction efficient. The BACT limit is stated as the concentrations in Section 4, and not as a destruction efficiency.

(Sierra Research- BACT SRC member)

Collection efficiency is not destruction efficiency. (WSPA- BACT SRC member)

**Response B10:**

Staff agrees and has made revision.

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**Comment B11:**

Page 2, I.C. Engine–Emergency, Compression Ignition (A.N: 558397), Section 4, Part C

“BASIS OF THE BACT/LAER DETERMINATION: ~~Achieved~~ **Achieved**”

(WSPA- BACT SRC member)

**Response B11:**

Staff agrees and has made revision.

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**Comment B12:**

Page 2, I.C. Engine–Emergency, Compression Ignition (A.N: 558397), Section 4, Part A

“BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits on the permit(s) that affects the equipment, Include units, averaging times and corrections (% O<sub>2</sub>, % CO<sub>2</sub>, dry, etc.) For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ration, if applicable.”

Should clarify that these values are EPA certification values (or standards) based on EPA certification test methods. These values may not be achieved during a single-mode field test. (Sierra Research- BACT SRC member)

**Response B12:**

Staff agrees and has made revision. Staff also made a correction to the values in this section to be consistent with Permit Condition No. 14 in Permit G30438 (Application No. 558397). The values are now:

NO <sub>x</sub> +VOC	CO	PM OR PM <sub>10</sub>
4.8 g/bhp-hr	2.6 g/bhp-hr	0.01 g/bhp-hr

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**Comment B13:**

Page 3, I.C. Engine–Emergency, Compression Ignition (A/N: 558 97), Section 5, Part G

“CONTROL TECHNOLOGY COMMENTS: Permit condition to regenerate PM filter whenever warning signal is received from alarm system. For regeneration run engine until exhaust tem exceeds 464 Deg. F and normal backpressure reading. Engine exhaust temp at inlet to PM filter ≥464 Deg. F except during cold engine star-up.”

Has the district calculated and accounted for the increased emissions associated with regeneration as compared with the emissions reduced by the DPF?

(Sierra Research- BACT SRC member)

**Response B13:**

Please see response B4.

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**Comment B14:**

Page 3, I.C. Engine–Emergency, Compression Ignition (A/N 558397), Section 6, Part A  
“COMPLIANCE DEMONSTRATED BY: Source test or other method that was used to demonstrate compliance”

Should indicate that compliance is demonstrated through the use of a certified Tier 2 engine in combination with a CARB-verified DPF. (Sierra Research- BACT SRC member)

**Response B14:**

Staff agrees and has made revision.

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**Comment B15:**

I.C. Engine – Emergency, Compression Ignition (A/N 516409, 516708 and 558397)

Three proposed LAER determinations are included in draft BACT Guidelines for emergency compression ignition engines and list operating schedules of < 1 hrs/day; 1 days/week; 26 wks/yr. However, the achieved in practice reliability provision states, “All control technologies must have been installed and operated reliably for at least six months. If the operator did not require the basic equipment to operate daily, then the equipment must have at least 183 cumulative days of operation. During this period, the basic and/or control equipment must have operated: 1) at a minimum of 50% design capacity; or 2) in a manner that is typical of the equipment in order to provide an expectation of continued reliability of the control technology.” If these emergency engines did not conform with the reliability standards, then these determinations should not be included in the updated BACT Guidelines. (SCAP)

**Response B15:**

Refer to Response A25

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**Comment B16:**

BACT SRC Meeting

In the May 11, 2016, Scientific Review Committee meeting, SRC member David Rothbart requested a list of all LAER Determinations that had been made since the last BACT update. Staff responded that it is their goal to update the listings to current standards in the current and future rounds of BACT updates. David Rothbart later clarified his request in the September 27, 2016 SRC meeting that he wanted a response to a situation he had be made aware of regarding recent BACT Determinations. He stated

he had heard of a list of LAER Determinations that District permitting staff had been using since the last BACT update in 2008.

**Response B16:**

Staff questioned various levels of staff in four different SCAQMD permitting groups and none of them had any listings of new LAER determinations since the 2008 update. The only document that was discovered that was similar to Mr. Rothbart's claim was a summary, created by the AQACS Brian Yeh on January 24, 2003, of approved LAER and BACT listings from the approved BACT Guidelines that were frequently used by the Coatings permitting unit. The summary was created as a streamlining tool to be used as an initial assessment for permit evaluations. Although some listings are still applicable, the document has not been updated since it was created and is considered outdated. Staff is not aware of any other lists of LAER or BACT Determinations made since the 2008 BACT Guideline update. Staff is still committed to expeditiously updating the LAER and BACT listings to reflect current rules and new technologies, as well as making new and more stringent BACT determinations.

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**Part C**

**Comment C1:**

Page 34, Chapter 1- How is MSBACT Determined for Minor Polluting Facilities?

This chapter explains the definitions of BACT for non-major polluting facilities (minor source BACT or MSBACT) found in SCAQMD rules and state law and how they are interpreted. It also explains the criteria used for initializing the Part D MSBACT Guidelines and the process for updating the MSBACT Guidelines.

Recommend providing more of an overview focusing on the difference between LAER and BACT requirements. (LADWP- BACT SRC Member)

**Response C1:**

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Chapter 2 of the Overview section of the BACT Guidelines titled “Applicability Determination” discusses how to determine if a facility is a major polluting facility and subject to LAER or MSBACT. Part A and Part C discuss the details of LAER and MSBACT respectively. In addition, the proposed updated Figure 2 “The Ongoing BACT Update” has two branches for minor source and major source.

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**Comment C2:**

Page 34, Chapter 1, Part D of the MSBACT Guidelines, Paragraph 2:

The ~~initial~~ listings in Part D of the MSBACT Guidelines **reflect current BACT determinations for sources at non-major polluting facilities as of April 2000. This initialization does not represent new requirements but rather memorializes current BACT determinations and emission levels.**

Having the words “current” is somewhat confusing. The BACT determinations which have been replaced with new determinations should be clearly indicated to be no longer “current.”(OCSD- BACT SRC member)

**Response C2:**

Staff agrees and has included the revision.

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**Comment C3:**

Page 37, Chapter 1, Table 5:

The heading for the nonincremental cost-effectiveness threshold is “Average.” It might be clearer to label it “Regular” or something similar since “Average” might imply there are several different thresholds being averaged. (SDAPCD-BACT SRC Member)

**Response C3:**

Average Cost Effectiveness ratio is referenced according to its economic definition, which is defined as the total cost of a project divided by the effectiveness of the project in comparison to doing nothing.

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**Comment C4:**

Page 37, Chapter 1:

When cost effectiveness is a consideration for a BACT determination, it would be useful to make the detailed cost-effectiveness analysis readily available (i.e., posted online). Other districts may have different cost effectiveness methodologies, cost effectiveness thresholds, or be determining BACT for a slightly different source category. Making the detailed cost-effectiveness analysis available would provide other districts with information, including itemized equipment and operating costs, to make appropriate adjustments when addressing BACT. (San Diego APCD, BACT SRC Member)

**Response C4:**

The cost effectiveness procedures applicable to minor source BACT in Part D under California Health and Safety Code 40440.11 are triggered for a BACT Determination that is more stringent than the existing BACT Guidelines. For this update, all Part D listings are being updated to be consistent with current requirements already in effect by either federal, State or SCAQMD requirements. Therefore, cost effectiveness analyses were not required for these Part D updates. Further details about these requirements can be obtained from the applicable staff reports for each rule or regulation. When required by H&SC 40440.11, staff intends to provide and present to the BACT SRC a detailed cost effectiveness analysis for each minor source BACT Determination that is new or more stringent than the current BACT Guidelines. Posting of detailed cost-effectiveness analysis online is being considered for future development.

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**Comment C5:**

Page 39, Chapter 1, Costs to Include in a Cost Effectiveness Analysis, Paragraph 1:

Methodologies for determining these values are given in documents prepared by USEPA through their Office of Air Quality Planning and Standards (OAQPS EPA Air Pollution Control Cost Manual, 4<sup>th</sup> Sixth Edition, 2002, USEPA through 450452/3B-9002-006 001 and Supplements).

You may want to change the link to [https://www3.epa.gov/ttn/ecas/cost\\_manual.html](https://www3.epa.gov/ttn/ecas/cost_manual.html) so as to capture any updates. Since this link just addresses the methodology for cost estimation, rather than identifying specific costs of technology conclusions, I think you can use a live link here. (Sierra Research - BACT SRC Member)

Change link to [https://www3.epa.gov/ttn/ecas/cost\\_manual.html](https://www3.epa.gov/ttn/ecas/cost_manual.html)

(WSPA - BACT SRC Member)

**Response C5:**

Staff agrees and has included revision.

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**Comment C6**

Page 40, Chapter 1, Clean Fuel Requirements, Paragraph 1:

Clean Fuel Requirements – Electrification should not be included in this section until it has been demonstrated as BACT for specific categories of equipment and industries. Additionally. This policy is subject to the provisions of Health & Safety Code section 40440.11. (WSPA- BACT SRC Member)

**Response C6**

Natural gas was included in the BACT Guidelines as a clean fuel option to diesel as originally identified in the Clean Fuels Policy. Similarly, as also identified by the original Clean Fuels Policy Industrial Electrification is being included by staff, subject to engineering feasibility and compliance with California Health and Safety Code section 40440.11 in establishing minor source BACT.

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**Comment C7:**

Page 41, Chapter 1, Clean Fuel Requirements, Paragraph 2:

The use of these fuels must meet the requirements of SCAQMD rules limiting NOx and sulfur emissions. Suggested addition: “This policy is subject to the provisions of Health & Safety Code section 40440.11. (WSPA – BACT SRC Member)

**Response C7:**

The current section in Chapter 1 of Part C already states that the new determinations under MSBACT are subject to the provisions of H&SC 40440.11, and staff agrees to provide additional clarification that the Clean Fuels Policy for MSBACT is subject those provisions.

---

**Comment C8:**

Page 42, Chapter 1, Figure 2:

Is the updated flow chart the one on top? (LADWP - BACT)

**Response C8:**

Correct, the updated flowchart is on top with the first cell titled “Permit Application Submitted.”

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**Comment C9:**

Page 43, Chapter 2, General:

The MSBACT requirements are in the form of:

- 1) an emission limit;
- 2) a control technology;
- 3) equipment requirements; or
- 4) a combination of the last two.

Add a bullet for work practice standards requirements. (LADWP – BACT SRC Member)

**Response C9:**

Staff agrees that work practice requirements are considered to be part of MSBACT requirements, but it is currently considered part of the “equipment requirements” category. Staff is in the process of developing a new BACT Determination Form and will be addressing this topic in the Form, and will consider adding work practice requirements to this list in future updates.

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**Comment C10:**

Page 45, Chapter 2, Other Considerations:

Although multiple process and control options may be available during the **MSBACT determination process, considerations should be made for options that reduce the formation of air contaminants from the process, as well as ensuring that emissions are properly handled. In addition to evaluating the efficiency of the control stage, these additional considerations are needed to ensure that the system is capable of reducing or eliminating emissions from** the facility on a consistent basis during the operational life of the equipment. Same caveat as above w/re H&SC 40440.11 (Sierra Research – BACT SRC Member)

**Response C10:**

The current section in Chapter 1 of Part C already states that the new determinations under MSBACT are subject to the provisions of H&SC 40440.11, and staff agrees to provide additional clarification that this section for MSBACT is subject those provisions for BACT considerations.

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**Comment C11:**

Page 45, Chapter 2, Pollution Prevention:

- improvements in housekeeping, maintenance or inventory control, that reduce the amount of air contaminants entering any waste stream or otherwise released into the environment, including fugitive emissions.

Suggested addition: “This policy is subject to the provisions of Health & Safety Code section 40440.11. (WSPA – BACT SRC Member)

**Response C11:**

Staff agrees and has included revision.

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**Comment C12:**

Page 40, Chapter 1, Clean Fuel Requirements, Paragraph 1.

Proposed the following language: “Besides natural gas, other clean fuels are ~~methanol,~~ liquid petroleum gas (LPG), ~~and~~ hydrogen and electricity. ~~Industrial electrification (e.g., replacement of I.C. Engines, etc.) is~~ Utilization of zero and near-zero emission technologies are also integrated in the Clean Fuels Policy.

(Southern California Gas Company- BACT SRC member)

**Response C12:**

Staff agrees and has included revision.

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**Comment C13:**

Page 28, Chapter 1, Clean Fuel Requirements, Paragraph 1.

WSPA appreciates the District’s responses to our June 13, 2016 letter as well as the September 27, 2016 meeting to discuss our remaining concerns. Based on the discussion regarding clean fuels, WSPA supports your suggestion to remove the word “Requirements” from the title, “Clean Fuel Requirements” and replace it with “Guidance”.

Additionally, WSPA supports the following language modifications to pages 28 and 41 of the October 2016 draft of the BACT Guidelines:

“Besides natural gas, other clean fuels are ~~methanol~~, liquid petroleum ~~gas (LPG)~~, and hydrogen, and electricity. Utilization of zero and near-zero emission technologies are ~~Industrial electrification (e.g., replacement of I.C. Engines, etc.)~~ is also integrated into the Clean Fuels Policy.” (WSPA – BACT SRC member)

**Response C13:**

Staff agrees and has replaced “Requirements” with “Guidance”. Staff also agrees with suggested Clean Fuels language, however “gas (LPG)” will be retained for consistency.

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**Comment C14:**

Page 40, Chapter 1, Clean Fuel Requirements

As discussed at the last SRC meeting, the Clean Fuel Requirement provision is rather confusing by interchanging the terms “Policy”, “Requirement” and “Guidelines”. SCAP understands that the purpose of the BACT Guidelines is to provide general guidance regarding major and minor source BACT. Accordingly, the term “requirement” should be replaced by “guideline” throughout the entire document. (SCAP)

**Response C14:**

Staff agrees and has included revisions to replace “requirement” with “guidelines” where appropriate.

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**Comment C15:**

Page 40, Chapter 1, Clean Fuel Requirements

Considering the Clean Fuels Program was adopted by the Governing Board in 1988, the SRC should revisit this provision in its entirety. For example, the December 15, 1997 recommendation to adopt a Five-Year Clean Fuels Program was clearly a program intended for a limited duration. Moreover, the Governing Board adopted an Energy Policy in 2011, which should supersede the outdated Clean Fuels Program. Rather than performing a complete revision of the Clean Fuel Requirement at this time, it is recommended to remove the term “requirement” as explained above. The subsequent update of the BACT Guidelines should address replacing the outdated Clean Fuel Requirement with a summary of the Energy Policy. (SCAP)

**Response C15:**

Under Section IV- Program Management of the Board Letter dated 12/15/87, which was adopted on 1/8/88, the Board approved a recommendation to adopt an ongoing policy which established clean fuels as BACT based on engineering feasibility. The Clean Fuel Policy and Energy Policy, adopted by the Governing Board on 9/9/11, are two different policies with unique and complimentary objectives. As adopted, the Energy Policy was not intended to supersede other policies, rather it was intended to complement policies, guiding principles, and initiatives previously adopted by the Governing Board. Staff looks forward to working with the BACT SRC, stakeholders, regulated community and the public in the review of the Energy Policy and how it could compliment the BACT Guidelines. Staff agrees and has included revision to replace “requirement” with “guidelines” where appropriate.

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**Comment C16:**

Page 45, Chapter 2, Pollution Prevention

The draft guidelines indicate that pollution prevention should be considered as part of the LAER and MSBACT determination processes, if the measures will result in the elimination or reduction of emissions. While pollution prevention should be considered by every facility, the Pollution Prevention Act of 1990 (42 U.S.C. §§13101-13109) does not require pollution prevention measures to be implemented without considering feasibility or cost effectiveness. As drafted the major and minor source provisions are vague and do not provide clarity to SCAQMD permit engineers or applicants. Our membership believes that these provisions should be excluded at this time. At minimum, to avoid confusion, the minor source provisions should be removed and the major provisions should be amended as follows:

For purposes of these BACT Guidelines, and to be consistent with federal definitions, source reduction and pollution prevention shall include, **but not be limited to a consideration of the feasibility of:**

- equipment or technology modifications,
- process or procedure modifications,
- reformulation or redesign of products,
- substitution of raw materials, or
- improvements in housekeeping, maintenance or inventory control, that reduce the amount of air contaminants entering any waste stream or otherwise released into the environment, including fugitive emissions, **if deemed to be cost-effective.** (SCAP)

**Response C16:**

Refer to Response A24

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**Comment C17:**

Page 46, Chapter 2, Monitoring and Testing

While the inclusion of monitoring and testing requirements at major stationary sources may be required, such provisions can be burdensome for minor sources. Permits should not contain monitoring requirements that are not relevant to air emissions. Moreover, the guidelines should clarify that required monitoring and testing should be feasible standard, industry recognized measurement techniques and test methods. At minimum, as a permit streamlining issue, such provisions tend to unnecessarily complicate and slow the permitting process and should be omitted. SCAP requests that this provision be removed from the minor source provision and the major source provision be modified to omit the operating conditions sentence. (SCAP)

**Response C17:**

Please refer to Response A26

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**Comment C18:**

Page 45, Chapter 2, Pollution Prevention

Thanks for the opportunity to comment on the Oct. 7 version of the BACT Guidelines. LADWP has the following concerns related to the proposed inclusion of pollution prevention as a control option for consideration in the BACT/LAER standard-setting process.

First, the federal Clean Air Act (CAA) contains a detailed and lengthy definition of BACT that makes no reference to pollution prevention as a control measure that must be considered in setting the technology-based performance standard (CAA Section 169(3)). Rather, the statutory definition only makes reference to the “application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.” By including reference to the Pollution Prevention Act of 1990, SCAQMD is adding an extra step to the BACT-standard setting process that is not required by the federal CAA by requiring the consideration of pollution prevention and source reduction projects. Although SCAQMD has authority to do so, SCAQMD has not provided any justification or need to go beyond statutory requirements, particularly given that for the pollutants of concern (such as NO<sub>x</sub> and PM), the nonattainment requirements for lowest achievable emission limit (LAER) also apply. LAER requires the permit authority to set the emission limit at the lowest level that has been set for any similar source by any state or has been achieved in practice (CAA Section 171(3)).

Second, the definition of pollution prevention and source reduction is very broad and includes projects “that reduce amount of air contaminants entering any waste stream or otherwise released into the environment.” It could, for example, require SCAQMD (as well as the permit applicant) to survey of all possible pollution prevention and source reduction projects and then demonstrate why these possible projects should be eliminated as an emissions control option. To avoid having to deal with this issue, SCAQMD should add clarifying language that excludes projects that redefine the source if pollution prevention must be included in the BACT guidelines. (LADWP – BACT SRC Member)

**Response C18:**

Please refer to Response A21

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## Part D

### **Comment D1:**

Page 68, Part D, I.C Engine, Portable BACT Determination

BACT SRC committee member stated it might be appropriate for the BACT Guidelines to specify that it is also applicable to prime portable engines. Anticipates that there are a lot of portable engines brought in in an emergency capacity but still subject to South Coast permitting rather than PERP (Portable Equipment Registration Program) program. It doesn't seem these standards should be more stringent than what you would be applying to stationary engines in the same application. Suggested it be worded ICE portable prime power. (Montrose Environmental; Sierra Research- BACT SRC Members)

### **Response D1:**

BACT requirements for an engine whether portable or emergency would be determined based on the permit it is operating under. A portable ICE that is being operated as a prime power ICE and requires a permit will no longer be considered a portable ICE and will be subject to the stationary ICE BACT requirements. Under PERP and Portable ATCM, there are allowances for short term operation of portable engines providing prime power. However, once the portable engine is no longer eligible for PERP registration it will be subject to stationary non-emergency engine requirements of Rule 1110.2.

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### **Comment D2:**

Page 68, Part D, I.C Engine, Portable BACT Determination

BACT SRC committee members stated there are plenty of applications and instances where an engine is operating and registered in PERP which might still be portable engine but possibly require local permit. Those engines today operating in PERP program – Tier 2 or 3 engines - but that technology should be allowed temporarily in the basin short term for emergency applications, and for that should specify subject to only prime power. More concerned about application of this BACT standard to a portable engine brought into the South Coast Basin and subject to a South Coast permit but the portable engine is only being used in emergency applications. SCAQMD's BACT guidelines specify Tier 2 or 3, but now current proposed update is making it more stringent than the emergency requirements. (Montrose Environmental; Sierra Research)

**Response D2:**

Please see response D1.

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**Comment D3:**

Page 68 & 71, Part D, I.C Engine, Portable and Stationary Emergency BACT Determination

BACT SRC committee members asked if SCAQMD regulations allow fleet averaging. If SCAQMD's BACT for portable and stationary emergency engines is mirroring CARB's requirements does SCAQMD accept a legally manufactured flexed engine?

(Montrose Environmental; OCSD – BACT SRC Members)

**Response D3:**

SCAQMD BACT does not allow for fleet averaging and just looks at the engine itself.

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**Comment D4:**

Part D Listing

Where applicable, add emissions averaging times to the Part D BACT Guideline table. This is consistent with the information provided on the Part B BACT form (section 4) that requests averaging times. (Sue Gornick, WSPA)

**Response D4:**

Staff agrees. This is demonstrated by the current Part D listing for Gas Turbines that indicates averaging times. However, in the case where the Part D listing references a rule or regulation, the Part D listing will defer to the rule language for averaging time.

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**Comment D5 (BACT SRC meeting):**

Part D Listing

As discussed in the meeting, referencing rules for the BACT Standards rather than the actual standard may be suitable in many cases and may be necessary in some cases (e.g., coating categories). However, it would be helpful to state the actual BACT standard (e.g., 5.0 ppmvd at 3% O<sub>2</sub>) whenever feasible. The BACT tables are much more transparent to use without the need to continually look-up, read, and interpret one or more rules. In some cases, the interpretation of a rule may be clear to SCAQMD practitioner but not to

someone in another district that is not familiar with SCAQMD rules. (San Diego APCD – BACT SRC Member)

**Response D5:**

Multiple responses have been received from the public preferring the rule to be referenced in the Guidelines if it qualifies as BACT. This topic was also discussed in the BACT SRC meeting on May 11, 2016. A case was made that as a rule changes, BACT will change with it if the rule is identified in the listing, whereas stating a specific rule emission limit may become outdated. Staff agrees with referencing the rule in the listing to provide the BACT Guidelines more flexibility. If an emission rate or control technology is ever found to be more stringent than the rule, then the listing will be updated with that new limit.

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**Comment D6:**

Page 13, Boiler BACT Determination Form

What are the bases for these proposed changes? We typically see the individual BACT determinations supporting Part D revisions. (Sierra Research – BACT SRC Member)

Include references to individual BACT determinations supporting Part D revisions. (WSPA – BACT SRC Member)

**Response D6:**

When a more stringent BACT Listing for Part D was proposed for BACT, staff provides examples of permitted equipment that demonstrated the BACT requirements can be met, as well as demonstrating cost effectiveness and reliability pursuant to H&SC 40440.11. For this update, the proposed Part D listings are becoming current with existing rule requirements and there are no proposals that are more stringent than would otherwise be required by existing federal, State and SCAQMD rules and regulations. As previously mention in Response D4, where feasible the rule will be cited in the listing which will clarify the bases of the listings.

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**Comment D7:**

Page 68, I.C. Engine Portable BACT Determination Form

The proposed guidelines are appropriate for new prime power portable engines that would enter the District, but some portable engines are operated strictly as emergency unit. As such, “Prime Power” should be incorporated into the title of this guidelines.

Doing so allows the same engine technology that is allowed for stationary emergency engines to also be allowed for temporary, portable emergency engines.

(Montrose Environmental- BACT SRC member)

**Response D7:**

Please see response D1.

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**Comment D8:**

Page 71, I.C. Engine, Stationary, Emergency BACT Determination Form

Delete references to Tier 2 under CO and PM for engine sizes where the NO<sub>x</sub>+ NMHC determination requires Tier 3, engines. (Sierra Research – BACT SRC member)

Eliminate inconsistencies, between Tier 3 and 2. Higher tier will govern. (WSPA – BACT SRC member)

**Response D8:**

Staff agrees and has included revision.

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**Comment D9:**

Page 71, I.C. Engine, Stationary, Emergency BACT Determination Form

In keeping with NSPS standards for emergency engines, SCAQMD proposes to delete provisions that allow spark ignition emergency engines from being used in demand response programs. However, rich burn engines permitted by SCAQMD for emergency applications generally meet NSPS standards for prime power engines. It seems that instead of deleting the DRP allowance entirely, SCAQMD should revise Footnote #5 to this guideline to specify that spark ignition engines permitted SCAQMD for emergency can be used in DRP applications only if the engine meets NSPS emission, reporting and compliance demonstration standards of 40 CFR 60, Subpart JJJJ for prime power engines. (Montrose Environmental – BACT SRC member)

**Response D9:**

Allowing engines that are permitted as stationary emergency spark ignition to be used in DRP applications would be contrary to Title 40, Part 60, Subpart JJJJ~~current federal law~~. Also, sStationary Prime power engines for electrical generation which are permitted by SCAQMD are required to comply with applicable Rule 1110.2 emission standards which are more stringent than NSPS standards.

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## **Comment D9a:** **BACT SRC Meeting**

In the September 27, 2016 BACT SRC meeting, Committee Member Karl Lany asked for further analysis and clarification regarding his comment at the previous BACT SRC meeting and staff's response. The comment was labeled as Comment D9 in the comment response section:

### **Comment D9:**

Page 71, I.C. Engine, Stationary, Emergency BACT Determination Form

In keeping with NSPS standards for emergency engines, SCAQMD proposes to delete provisions that allow spark ignition emergency engines from being used in demand response programs. However, rich burn engines permitted by SCAQMD for emergency applications generally meet NSPS standards for prime power engines. It seems that instead of deleting the DRP allowance entirely, SCAQMD should revise Footnote #5 to this guideline to specify that spark ignition engines permitted SCAQMD for emergency can be used in DRP applications only if the engine meets NSPS emission, reporting and compliance demonstration standards of 40 CFR 60, Subpart JJJJ for prime power engines. (Montrose Environmental – BACT SRC member)

### **Response D9:**

Allowing engines that are permitted as stationary emergency spark ignition to be used in DRP applications would be contrary to [Title 40, Part 60, Subpart JJJJ current federal law](#). [Also, stationary Prime power engines for electrical generation which are permitted by SCAQMD are required to comply with applicable Rule 1110.2 emission standards which are more stringent than NSPS standards.](#)

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## **Response D9a**

Staff agrees with Mr. Lany's request to revise Footnote No. 5 rather than deleting it. This footnote is located in the "I.C. Engine, Stationary, Emergency" listing under Part D of the guidelines. Staff feels it is appropriate to clarify the potential requirements for a spark-ignition, stationary, emergency engine to be used in a Demand Response Program as part of an interruptible electric service program. EPA's Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60.4243(d) states "If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines." 40 CFR 60.4243(d)(3) further specifies that the allowance of the operation of an emergency engine for "50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity." There is one specific allowance in this section, however an evaluation for compliance with District rules must also be conducted. The BACT SRC member states that for rich-burn engines, the emissions of the engines can still meet the prime power requirements of the NSPS, and therefore should still be allowed to participate in a DRP. However, this statement does not acknowledge SCAQMD rule applicability. SCAQMD Rule 1110.2, "Emissions from Gaseous- and Liquid-Fueled Engines", as well as SCAQMD Rule 1304, (New Source Review) "Exemptions," allow for exemptions for emergency standby engines. For emergency standby engines, SCAQMD Rule 1110.2(i)(1)(B) allows for an exemption from the emission requirements of 1110.2(d), and SCAQMD Rule 1304(a)(4) allows for

exemptions from New Source Review modeling and emission offset requirements. The definition under Rule 1110.2(c)(5) states that an emergency standby engine is “an engine which operates as a temporary replacement for primary mechanical or electrical power during periods of fuel or energy shortage or while the primary power supply is under repair.” Depending on how the engine is operated under the DRP, an engine may not meet this definition, and therefore may be subject to the requirements of the BACT category “I.C. Engine, Stationary, Non-Emergency,” as well as the requirements of SCAQMD Rule 1110.2(d) and the modeling and offset requirements of SCAQMD Rule 1303(b).

The proposed revision of the footnote, as well as current rule requirements, do not prohibit a stationary engine from operating in a demand response program. Although it may meet the NSPS prime power requirements, the engine will need to undergo additional evaluation to ensure it is not circumventing existing SCAQMD rule requirements. In addition, for BACT purposes it may be classified as “I.C. Engine, Stationary, Non-Emergency.”

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**Comment D10:**

Page 68&71, I.C. Engine Portable BACT & I.C. Engine, Stationary, Emergency BACT Determination Forms

It is not clear how BACT is addressed for portable and emergency engines that are relocated or modified rather than new. Although the District would consider Tier 4 the appropriate BACT for new engines, the District could potentially determine that BACT to be Tier 3 or Tier 2 based on cost-effectiveness considerations for a relocated or modified engine or for an existing PERP engine needing a District permit. (SDAPCD – BACT SRC Member)

**Response D10:**

Please see response D1.

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**Comment D11:**

Page 74, I.C. Engine, Stationary, Emergency BACT Determination Form, Spark Ignition  $\geq$  130 HP

VOC: 1.0 grams/bhp-hr <b>(X-XX-2015)</b>
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VOC: 1.5 grams/bhp-hr (10-20-2000)

I don't believe the SRC has seen this determination. (Sierra Research – BACT SRC Member)

**Response D11:**

This listing is based on the requirement listed in Table 1 in 40 CFR 60 Subpart JJJJ for Stationary Emergency Spark Ignition Engines with a horsepower rating of greater than or equal to 130 HP.

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**Comment D12:**

Page 75, Footnote 4

4) The engine must be certified by U.S. EPA or CARB to meet the Tier 1, 2 or 3 emission requirements of 40 CFR Part 89—Control of Emissions from the New and In-use Nonroad Compression –Ignition Engines shown in the table—or otherwise demonstrate that it meets the Tier 1, 2 or 3 emission limits. **If, because of the averaging banking, and trading program, there is no new engine from any manufacturer that meets the above standards, the engine must meet the family emission limits established by the manufacturer and approved by U.S. EPA. The PM limits apply only to filterable PM.**

While I understand that this language is not proposed for change, since ABT engines meet the applicable Subpart IIII requirements, why shouldn't they also meet the District BACT requirements? (Sierra Research – BACT SRC Member)

**Response D12:**

For this update, staff is focusing on bringing the Guidelines current with existing rule requirements. Any proposal under Part D that will be considered more stringent will need to be further evaluated in accordance with H&SC 40440.11. Staff is continually

evaluating new technologies and will research this item to determine if more stringent emissions limits have been achieved.

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**Comment D13:**

Page 76, I.C. Engine, Stationary, Non-Emergency BACT Determination Form

The biogas engine emission standards of Rule 1110.2 that will become effective in 2017 for existing engines are likely already implemented as BACT for new engines. SCAQMD should consider incorporating those standards into the proposed guidelines, rather than the existing Part D guidelines. (ES Engineering Services – BACT SRC Member)

**Response D13:**

The focus of this amendment of the BACT Guidelines is to make them consistent with recent changes to SCAQMD rules and regulations as well as state and federal requirements. Staff will research this category for the subsequent amendment to the BACT Guidelines if it is expected to occur before the Rule 1110.2 deadline for these engines.

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**Comment D14:**

Page 77, I.C. Engine, Stationary, Non-Emergency, Non-Electrical Generator BACT Determination Form

These determinations sometimes, but not always, match the requirements of Rule 1110.2. Suggest replacing the numeric limits with a requirement to comply with Rule 1110.2. If the Staff's intention is to impose more stringent requirements than those established in Rule 1110.2, I don't believe the SRC has seen the BACT determinations supporting this guideline change. (Sierra Research, BACT SRC member)

Replace the numeric limits with a requirement to comply with Rule 1110.2. (WSPA, BACT SRC Member)

**Response D14:**

Staff agrees with referencing the rule in the listing to provide the BACT Guidelines more flexibility.

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**Comment D15:**

SCAQMD also suggests in Footnote 1 of this guideline that until guidelines are established for stationary power generating engines, those engines will be subject to the standards for stationary emergency engines. (I believe SCAQMD intended to reference “stationary, Non-Emergency, Non-electrical Generators”) Regardless, the distributed generation standards of Rule 1110.2 have been in effect for new installations since the year 2008 and should be incorporated into the guidelines.

(ES Engineering Services – BACT SRC Member)

**Response D15:**

Staff is currently analyzing multiple permit units under this future proposed listing to ensure the proper emission limit or rule reference is adopted. Staff is committed to addressing this listing in the subsequent amendment of these Guidelines.

Staff has corrected the reference in the footnote to “Stationary, Non-Emergency, Non-Electrical Generators.”

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**Comment D16:**

SCAQMD permitting staff commented regarding the values presented for Tier 4 Interim under the Part D listing for Portable Engines. For the Portable Compression Ignition categories for the ranges of 75-175 HP and greater than 750 HP, the Tier 4 Interim value of 0.19 grams/kW-hr is listed for NMHC emissions. The converted value of 0.16 grams/bhp-hr is incorrect however, and should be corrected to 0.14 grams/bhp-hr. range.

(SCAQMD Permitting Staff)

**Response D16:**

Staff agrees and has included the revision in both horsepower ranges.

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**Comment D17:**

Page 68 Part D Listing for I.C Engine, Portable

I am not sure that we are in agreement regarding the use of portable engines under SCAQMD permit, versus the use of such engines under the portable equipment registration program. In my initial comments to you I suggested that the BACT table in Part D of the guidelines for portable engines should differentiate between emergency and prime power units.

In your response to my comments, you suggested that PERP includes allowances for a portable engine to be operated as a prime power unit, but once PERP no longer serves as a valid authorization to operate, the engine becomes subject to Rule 1110.2 requirements for stationary engines. This is not necessarily the case. The issue is often simply the authorization to operate the engine, rather than the transition from a portable device to one that becomes stationary. Transitioning from PERP registration to SCAQMD permit, does not necessarily mean that the engine becomes a stationary unit or a prime power unit; it simply means that the engine must be operated under SCAQMD permit. Additionally, for portable diesel engines, Rule 1110.2 specifies compliance with the portable engine ATCM, rather than more stringent standards for stationary engines. The portable engine ATCM recognizes differences between emergency and prime power applications and allows for different technologies to be used, accordingly. Proposed amendments to the portable engine ATCM will further clarify this distinction. Those amendments are expected to be adopted in early 2017. Additionally, the portable engine ATCM does not mandate Tier 4 final technology for all new prime power portable engines. Even for new engines entering California, the ATCM will continue to allow Tier 2, Tier 3 and Tier 4I flexibility engines in both prime and emergency applications even after it is amended (the current regulation also allows Tier 1 flexibility engines in prime power applications). Also, the ATCM does not mandate new technology simply because a portable engine is relocated or because authorization to operate the engine is transferred from a PERP registration to SCAQMD.

I believe the complication we face with this class of emission sources is due to its portability combined with the opportunity to operate under both PERP and local district permit. Traditionally, stationary equipment that is relocated is subject to BACT requirements as discussed in the guideline summary. Portable engines, however, are designed and permitted under both PERP and SCAQMD permit to be repeatedly dispatched and used at various locations on a temporary basis. Transferring from PERP to local district authority to operate a portable engine does not change the function of the engine as a portable device, nor should it invalidate the technology standard that was applied when the engine was initially permitted or registered. If SCAQMD is suggesting that BACT is triggered only when a stationary engine is relocated but not when a portable is relocated and the BACT guideline applies only to new units, then I certainly agree with that suggestion (although we may to better understand the circumstances that otherwise allow non-Tier 4 technology to be delivered into California as well as the general availability of Tier 4 technology). In this case, I would suggest a footnote to specify that the BACT table applies to portable engines that are not currently operated under SCAQMD permit or PERP registration. If, however, SCAQMD is suggesting that BACT is triggered simply because the operation of a portable engine occurs either voluntarily or pursuant to regulation under SCAQMD permit, rather than PERP registration, then we must continue to discuss the practicality of that interpretation as well

the applicability of portable emergency engine standards. It is because of emergency engine operations that many portable engines would be transferred from PERP to SCAQMD permit. The portable engines being selected for these applications are operating under PERP without being Tier 4 technology, just as stationary emergency engines and portable emergency engines are operated under SCAQMD permit without being Tier 4 technology.

I suggest additional discussion regarding this topic due to the nuances of federal, state and local regulations affecting these engines, as well as the unique circumstances surrounding their portability. If such discussion cannot occur within the timeframe of SCAQMD's desired presentation of the guidelines to its Governing Board, then I suggest deleting the portable engine BACT guideline until amendments to the portable engine ATCM are adopted in early 2017. (ES Engineering – BACT SRC Member)

### **Response D17:**

A BACT SRC member requested clarification of how BACT is applied if a facility operates a portable engine registered in ARB's PERP program and wants to apply for an SCAQMD portable engine permit. Permitting policy is not addressed in the BACT Guidelines. BACT guidance and applicability are addressed in the I.C. Engine Portable BACT determination. An operator seeking an SCAQMD permit for an engine deemed to meet the definition of portable is subject to evaluation under the Clean Fuels Requirements. The Clean Fuels process is discussed separately, but in summary an evaluation is performed to determine if it is technologically feasible, and cost effective for minor sources, to switch to a clean-fueled engine (e.g. natural gas), if the equipment is not already fired on a clean fuel. If a clean-fueled engine is not feasible, then the evaluation process continues to determine compliance with applicable state, federal and SCAQMD requirements. For a portable engine at a minor source, like other minor source permit applications, BACT is determined at the time the application is deemed complete by SCAQMD Engineering & Permitting (E&P). The proposed BACT Guidelines for portable engines will be in line with the most stringent requirements for new engines being registered under PERP. Permit applications submitted for diesel-fueled, compression-ignition (CI) portable engines will be evaluated for BACT in accordance with ARB "ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 HP and Greater." Typically, pursuant to Title 13 of the California Code of Regulations (CCR), Section 93116.3(b)(2), a portable, diesel-fueled engine shall not be initially permitted or registered unless it meets the most stringent federal or state standard for non-road engines. The proposed Part D BACT listing for "I.C. Engine, Portable" for these engines is in line with the most stringent requirements. There are some exceptions to this requirement under Section 93116.3(b)(2)(A) through (E). A footnote in the Part D

BACT Guidelines for Portable CI Engines allows for these exceptions that are identified in the ATCM. In determining BACT applicability, E&P currently evaluates any exceptions pertinent to the engine on a case by case basis. Although the ATCM is currently in the amendment process, the footnote wording will apply to any future ATCM allowances, but will also be interpreted in accordance with any future E & P portable engine permitting policy. It should be noted that after January 1, 2017, the current version of the ATCM does not allow for the issuance of permits for portable CI engines not meeting the most stringent of the federal or California emission standards for nonroad engines under 17 CCR Section 93116.3(b)(2)(E).

Staff acknowledges the commenter's request to clarify the difference between prime power and emergency applications for portable I.C. engines. If an existing portable engine with an SCAQMD permit operates for prime power purposes outside of allowances for emergencies under Rule 1110.2(d)(2), then it is subject to the stationary engine requirements of Rule 1110.2 and the requirements of Table 1 in Rule 1110.2. Additionally, if such engine is a new, prime portable engine, it will be subject to the electrical generation standards in Table IV of Rule 1110.2. If a portable I.C. engine operates within the allowances of Rule 1110.2(d)(2), then it will not be subject to the stationary engine requirements. Additionally, as previously discussed in the May 11, 2016 SRC meeting, staff will be developing a future BACT listing for "I.C. Engine, Stationary, Non-Emergency, Electrical Generators," that will further clarify requirements for prime power I.C. engines.

Regarding BACT requirements due to relocations, the requirements are not dependent on BACT Guidelines categories. The requirements for relocations of permitted equipment within the District are subject to SCAQMD Rules 1303(a)(1) for equipment requiring a permit, and 1306(d)(3) for relocated minor facilities. Any equipment operated under a various locations permit are allowed to operate at different locations without triggering BACT as long as they are operated in compliance with the conditions on the permit, as well as other applicable local, state and federal requirements. In addition to new permit units, BACT may also be triggered by a modification of any permit unit or permit conditions that results in an increase of emissions of greater than or equal to 1.0 lb/day.

These scenarios only discuss situations in which the engine is deemed to meet the definition of portable and do not discuss the process of how an engine is initially determined to be portable or stationary, nor does it discuss the reasons why an engine operating under PERP would need to obtain a permit. Due to the vast array of different scenarios and facts needed to determine if a PERP engine requires a permit, or if it is classified as a stationary or portable engine, those situations are handled on a case-by-case basis by SCAQMD Engineering & Permitting and Compliance & Enforcement divisions, and are beyond the purview of the BACT Guidelines.

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**Comment D18:**

Page 68, I.C. Engine Portable BACT Determination Form

As operators of essential public services, SCAP members are concerned about the ability of Tier 4 engines to perform during an extended emergency (e.g., the depletion of urea). We are discussing these special circumstances with CARB staff and request that the BACT Guidance adequately reference CARB’s anticipated relief to avoid a revision of this document. (SCAP)

**Response D18:**

Staff agrees and acknowledges the ongoing discussions between SCAP and ARB. The current footnote number 3 under Part D, minor source BACT determination for compression ignition portable engines, will remain. This footnote specifies that the BACT listing allows for the exceptions of ARB’s Portable Engine ATCM (17 CCR 93116). It is staff’s intention that the future exceptions will still apply when the proposed ATCM is amended. It should be noted that these engines may be separately subject to any SCAQMD Engineering and Permitting policy in regards to the permitting discretion afforded to local Districts under 17 CCR 93116(b)(2)(E).

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**Comment D19:**

Page 68, I.C. Engine Portable BACT Determination Form

Another issue that should be addressed is the SCAQMD policy regarding BACT for existing PERP-registered diesel engines. As discussed at the last SRC meeting, SCAQMD staff has been requesting operators to obtain SCAQMD permits for their existing PERP emergency diesel engines. SCAP believes that NSR is not triggered by merely transferring permitted equipment from CARB to SCAQMD’s jurisdiction. To avoid confusion, it is recommended that this situation be addressed in the updated BACT Guidelines. (SCAP)

**Response D19:**

Permitting policy is not addressed in the BACT Guidelines. BACT guidance and applicability is addressed in the I.C. Engine Portable BACT determination.

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**Comment D20**

Page 40, Chapter 1, Clean Fuels Requirements

I am hoping that during our meeting today we can discuss the nuisance and implications of SCAQMD's desire to include electrification as a clean fuels policy alternative. We only touched upon the subject in our prior meeting and the draft board package does not offer much additional information.

It seems that an alternative technology analysis of electrification would be more complex and site specific than what would be conducted for other clean fuel alternatives. As such, the consideration of electrification as a basic equipment alternative seems to negate the certainty that the minor source BACT guidelines were intended to provide. While the implementation of electrification as an alternative clean fuel may not be debatable for major sources, its implementation may conflict with the intent of the BACT process for minor sources.

The proposed package suggests that the addition of electrification simply corrects an past omission. Even if this is correct, it seems that the proposed board package does not do much to truly explain its justification or implications. The regulated community faces the same lack of clarification. With so much time passing since the passage of SB456, combined with significant turnover on the Governing Board, more information should be shared. Committee meeting discussion and the board package should include the following concepts:

1. How does the policy complement or conflict with SB456 prohibitions on BACT determinations that alter basic equipment or processes?
2. If implemented for minor sources, what steps can or will SCAQMD take to minimize uncertainty prior to application submittal or to ensure that permit processing is streamlined for minor sources?
3. What processes will SCAQMD propose for an electrification analysis?
4. Given the applicability of the standard to PM and Sox emissions, what types and sizes of sources are likely to be affected and what is the typical permitting volume of such sources?
5. Historically, we depend upon default data such as AER and AP-42 emission factors to permit combustion PM sources, but those data sources are not always reflective of local conditions or test programs and often overstate potential emissions. How will SCAQMD ensure that minor sources are not drawn into an electrification analysis simply due to the use of incomplete or inaccurate data?

### **Response D20**

1. How does the policy complement or conflict with SB456 prohibitions on BACT determinations that alter basic equipment or processes?

The proposed addition of electricity and zero and near-zero emission technologies as clean fuel options complement both major and minor source Clean Fuels Policy guidance

in the BACT Guidelines as alternatives to conventional petroleum-based fuels. For minor source BACT, staff is including a recommendation made by the BACT SRC to include a clarification that the implementation of the Clean Fuels requirements are subject to the provisions of California Health and Safety Code Section 40440.11 (SB 456). Section 40440.11(a) states that in establishing BACT, “the south coast district shall consider only control options or emission limits to be applied to the basic production or process equipment existing in that source category or a similar source category. This language is not a prohibition from altering the basic equipment or process from a non-clean fuel to a clean fuel as a control option that has been demonstrated to be feasible in the same or similar source category. The implementation of the Clean Fuels policy is remaining the same and will continue to be conducted in accordance with H&SC 40440.11 for minor sources. The policy complements the H&SC 40440.11 procedures since it allows for the analysis of alternative, cleaner fuels as a control option that are evaluated to be technologically feasible and cost effective rather than only requiring add-on control equipment. The inclusion and clarification of electricity as one of the options for clean fuel further complements the H&SC 40440.11 requirement. In addition, the use of zero and near-zero emission technologies is consistent with the District’s 2011 Air Quality-Related Energy Policy that complements policies previously adopted by the Governing Board.

2. If implemented for minor sources, what steps can or will SCAQMD take to minimize uncertainty prior to application submittal or to ensure that permit processing is streamlined for minor sources?

The Clean Fuels Policy is already implemented for BACT determinations for minor sources, and electricity is being added as a clean fuel option for clarification purposes. To minimize uncertainty, staff encourages applicants that are planning to submit applications for equipment proposed to be fired on non-clean fuels (e.g. diesel oil) to meet with permitting and BACT staff prior to submittal. Many BACT listings already incorporate clean fuel usage into the requirements, so the majority of permit applications do not require additional Clean Fuels analyses. In addition, based on engineering feasibility some common allowances are identified in the Clean Fuels Requirements sections in the BACT Guidelines (e.g. emergency standby generators).

3. What processes will SCAQMD propose for an electrification analysis?

The proposed addition of electricity as a clean fuel is not a requirement to have certain permit units subject to a required “electrification analysis.” The proposal is clarifying that electricity will be included as a clean fuel option as part of a Clean Fuels analysis. The Governing Board adopted the Clean Fuels Policy and included a requirement that clean fuels be included as part of BACT. In the BACT Guidelines, a clean fuel is a fuel that produces criteria pollutant emissions equivalent to or less than natural gas, which includes electricity. The current process of a Clean Fuels analysis may include the

evaluation of multiple clean fuels, including electricity, and is based on engineering feasibility and cost effectiveness (for minor sources). A Clean Fuels analysis does not solely focus on electrification, therefore staff is not proposing any specific processes that will be subject to an “electrification analysis.” As previously mentioned, typically any processes proposing to use a fuel that is not a clean fuel will undergo a Clean Fuels analysis.

4. Given the applicability of the standard to PM and SO<sub>x</sub> emissions, what types and sizes of sources are likely to be affected and what is the typical permitting volume of such sources?

No additional sources will be affected by the proposal than are already subject to the existing Clean Fuels requirements. A clarification is being proposed that electricity qualifies as an option for a clean fuel. A Clean Fuels analysis is triggered when a proposed permit unit will be fired on a fuel that produces criteria pollutant emissions greater than had the unit been fired on natural gas. Since the trigger for the analysis is not changing, an evaluation was not completed regarding how many sources are currently evaluated under the existing Clean Fuel requirements.

5. Historically, we depend upon default data such as AER and AP-42 emission factors to permit combustion PM sources, but those data sources are not always reflective of local conditions or test programs and often overstate potential emissions. How will SCAQMD ensure that minor sources are not drawn into an electrification analysis simply due to the use of incomplete or inaccurate data?

The need for a Clean Fuels analysis is based on the criteria pollutant emission rate of a fuel relative to the rate for natural gas. For this purpose, these emission factors are well established to determine if the proposed fuel will result in greater emissions and require a Clean Fuels analysis. This process does not directly cause an “electrification analysis.” During a Clean Fuels analysis and evaluation, in addition to engineering feasibility, these emission factors may be used to determine the relative cost effectiveness for several clean fuels (e.g. propane, natural gas and electricity) compared to the proposed fuel. For this scenario, all of the different cost effectiveness values will be calculated using the same emission rate, so any uncertainty in the emission factor of the proposed fuel will be equally applied to each option.

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**Comment D20:**

Page 52, Fiberglass Operations, Fabrication-Hand and Spray Layup

On 9/27/06 BAAQMD determined (determination attached) that material with a monomer content of no greater than 34 percent by weight, was achieved in practice. We urge the district to update its guidelines based on the BAAQMD determination and include UV/EB technology as an equivalent method to achieve the standard. (Radtech)

**Response D20:**

Staff appreciates bringing this potential BACT determination to our attention and look forward to working with BAAQMD and Radtech in the evaluation of this technology for compliance with California Health and Safety Code, Section 40440.11 in order to be considered for proposed addition to Part D, minor source BACT in the SCAQMD BACT Guidelines.

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**Comment D21:**

Page 104, Printing (Graphic Arts), Flexographic

On 11/09/04, the San Joaquin Valley Air Pollution Control District listed (determination attached) UV technology as “Achieved in Practice” for “Flexographic UV Printing - High End Printing of Labels, Tags, and Forms”. The substrates, covered by this guideline, are low-porosity papers, plastic films, and metalized paper/foil. We urge the district to update its guidelines based on the SJVAPCD determination and include UV/EB technology as an equivalent method to achieve the standard. (Radtech)

**Response D21:**

Staff appreciates bringing this potential BACT determination to our attention and look forward to working with San Joaquin Valley Air Pollution Control District and Radtech in the evaluation of this technology for compliance with California Health and Safety Code, Section 40440.11 in order to be considered for proposed addition to Part D, minor source BACT in the SCAQMD BACT Guidelines.

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**Comment D22:**

Page 104, Printing (Graphic Arts), Screen Printing and Drying

On 6/20/95, BAAQMD determined (determination attached) that use of ultraviolet light curable inks was technologically feasible and cost effective for screen printing operations. Furthermore, BAAQMD found that the UV technology is the typical technology used. We urge the district to update its guidelines to reflect the BAAQMD’s determination. (Radtech)

**Response D22:**

Staff appreciates bringing this potential BACT determination to our attention and look forward to working with BAAQMD and Radtech in the evaluation of this technology for compliance with California Health and Safety Code, Section 40440.11 in order to be considered for proposed addition to Part D, minor source BACT in the SCAQMD BACT Guidelines.

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**Comment D23:**

Page 119, Spray Booth, Other Types

On 12/16/03 BAAQMD determined (determination attached) that emissions controlled to overall capture/ destruction efficiency >90% was cost effective for Miscellaneous Metal Parts and Products Spray Booths with uncontrolled emissions of greater than or equal to 50 lbs/day. The determination notes that the typical technology is low VOC coatings. Furthermore, for operations with uncontrolled emissions of 50 lbs/day or greater, BAAQMD determined that 90% control was achieved in practice. We urge the district to update its guidelines to reflect the BAAQMD determinations and include UV/EB technology as an equivalent strategy to achieve 90% emissions control for the category of “Spray Booth, other types”. (Radtech)

**Response D23:**

Staff appreciates bringing this potential BACT determination to our attention and look forward to working with BAAQMD and Radtech in the evaluation of this technology for compliance with California Health and Safety Code, Section 40440.11 in order to be considered for proposed addition to Part D, minor source BACT in the SCAQMD BACT Guidelines.

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## Part E

### **Comment E1:**

Page 502, Chapter 1- GHG BACT:

This chapter explains the requirements of greenhouse gases (GHG) BACT regulations according to EPA, describes the Top-Down Process, shows how to calculate GHG emissions and **explains the Prevention of Significant Deterioration (PSD) Applicability for GHGs for new sources as well as modified sources.**

I don't believe you need to discuss PSD applicability in this document. You run the risk of inconsistencies with your rules, EPA rules, and/or Court decisions. PSD applicability is addressed directly in Rule 1714. (Sierra Research – BACT SRC member)

Instead of paraphrasing parts of EPA's PSD and Title V Permitting Guidance for GHGs, recommend attaching the entire document as an appendix. (LADWP – BACT SRC Member)

By attempting to discuss PSD applicability in this document it runs the risk of oversimplifying or being inconsistent with Rule 1714. (WSPA – BACT SRC Member)

### **Response E1:**

Similar to the Applicability Determination section in Part A that describes major source thresholds for LAER, due to the unique applicability requirements of “Anyways Sources” and the history of the development of the requirements, staff feels it is important that this topic is discussed in the Guidelines specific to the requirements to determine BACT for PSD for GHG.

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### **Comment E2:**

Page 502, Chapter 1-GHG BACT:

The first paragraph suggest that EPA's Tailoring Rule is in the process of being revised to reflect the Supreme Court's Decision. However, this has already happened: <https://www.federalregister.gov/articles/2015/08/19/2015-20501/prevention-of-significant-deterioration-and-title-v-permitting-for-greehouse-gases-removal-of>. (EPA Region 9 - BACT SRC Member)

The guidance in this chapter is applicable to the EPA requirements in place as of the date of these guidelines, as well as SCAQMD Rule 1714.

EPA's rule is at OMB so this may have to be corrected. (LADWP - BACT SRC Member)

**Response E2:**

Staff agrees and has included revision.

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**Comment E3:**

Page 502, Chapter 1, Background, Paragraph 2:

All other attainment air contaminants, as defined in SCAQMD Rule 1702 subdivision (a), shall be regulated for the purpose of PSD. **PSD is not applicable to air contaminants designated as nonattainment status.**

As discussed above, this statement is too broad, (e.g., NO<sub>x</sub> regulated as a nonattainment precursor to O<sub>3</sub> and as an attainment precursor to NO<sub>2</sub>.) (Sierra Research – BACT SRC Member)

This is an oversimplification. NO<sub>x</sub> is an attainment pollutant which is also regulated as a nonattainment pollutant based on nonattainment precursor status.

(WSPA – BACT SRC Member)

**Response E3:**

Staff agrees and has included revision.

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**Comment E4:**

Page 502, Chapter 1, Permitting Guidance for GHG:

**EPA's "PSD and Title V Permitting Guidance for Greenhouse Gases" provides the basic information that permit writers and applicants need to address GHG emissions in permits. The guidance:**

- **Applies long-standing PSD and Title V permitting requirements and processes to GHG;**

The guidance pre-dates the UARG court decision; a reference to the guidance could suggest that the District intends to implement the pre-UARG Tailoring Rule. Suggest deleting the reference, or clarifying that to the extent the guidance is inconsistent with UARG or EPA's Tailoring Rule update, the provisions of those decisions/rules govern. (Sierra Research – BACT SRC Member)

This guidance pre-dates the Utility Air Regulatory Group (UARG) v. EPA court decision (No.12-1146, June 23, 2014); a reference to this guidance could suggest that the District intends to implement the pre-UARG Tailoring Rule, which was invalidated in the Supreme Court Decision. WSPA suggest deleting this reference, or clarifying that to the extent the guidance is inconsistent with the Supreme Court's UARG decision or EPA's Tailoring Rule update, the provisions of that decision and current rules govern. (WSPA – BACT SRC Member)

**Response E4:**

Staff has updated the language to clarify the requirements. The language is not intended to implement requirements that pre-dated the Supreme Court's UARG Decision that have since been removed. Some references to the Tailoring Rule will remain, but staff will include most PSD for GHG requirements in the Guidelines.

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**Comment E5:**

Page 53, Chapter 1, Permitting Guidance for GHG, Bullet Point 7:

- Notes that biomass could be considered BACT after taking into account environmental, energy, and economic considerations and state and federal policies that promote biomass for energy-independence and environmental reasons.

EPA is reassessing the biomass issue so you may want to reword this so that the statement is not so definitive. (LADWP – BACT SRC Member)

**Response E5:**

Staff agrees and will add advisory language that EPA is considering revisions that will affect BACT determinations for these sources. A footnote will be added referencing U.S. EPA's memo dated November 19, 2014 regarding this topic (<https://www3.epa.gov/climatechange/downloads/Biogenic-CO2-Emissions-Memo-111914.pdf>).

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**Comment E6:**

Page 513, Chapter 1, Federal PSD Applicability for GHG:

Beginning January 2, 2011, GHG regulated as a **NSR** contaminant.

Not quite correct; GHGs are regulated for PSD and Title V purposes, but not for all NSR purposes. (Sierra Research – BACT SRC Member)

This statement is not correct. GHG are regulated under PSD based on the endangerment finding. But GHG are not subject to PSD NSR the same way as criteria pollutants.

(WSPA – BACT SRC Member)

**Response E6:**

Staff agrees and has included revision.

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**Comment E7:**

Page 513, Chapter 1, Federal PSD Applicability for GHG, Paragraph 1:

The first step for PSD applicability determination for new or modified sources is listed in the Tables 7 and 8 below that address the Tailoring Rule Requirements.

This entire discussion needs to be revised. As noted above, the Tailoring Rule was vacated by the court. Under the court's decision, GHG PSD is not triggered unless PSD has been triggered for an attainment criteria pollutant. (WSPA – BACT SRC Member)

**Response E7:**

Staff agrees and has included revision.

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**Comment E8:**

Page 513, Chapter 1, Federal PSD Applicability for GHG:

EPA is developing a proposed rule to address this issue. (LADWP – BACT SRC Member)

**Response E8:**

Staff is updating this section to be consistent the most recent amendment of 40 CFR 52.21 on August 19, 2015.

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**Comment E9:**

Page 513, Chapter 1, Federal PSD Applicability for GHG, Paragraph 1:

GHG BACT applies when a new or modified facility is subject to **PSD requirements**.

“...PSD requirements for GHG.” (Sierra Research – BACT SRC Member)

**Response E9:**

Staff agrees and has made the correction.

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**Comment E10:**

Page 513, Chapter 1, Federal PSD Applicability for GHG:

A second step for PSD applicability is contemporaneous netting. **For detailed guidance on this topic, EPA’s “PSD and Title V Permitting Guidance for Greenhouse Gases” (March 2011) should be referenced, but should be used in accordance with EPA’s clarifying documents regarding the U.S. Supreme Court decision in Utility Air Regulatory Group v. Environmental Protection Agency<sup>20</sup>.**

This language addresses my concern above; should be used there as well.

(Sierra Research, BACT SRC Member)

**Response E10:**

Staff will update the remainder of Part E to be consistent with the UARG Court Decision and the recent amendment of 40 CFR 52.21 dated August 19, 2015.

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**Comment E11:**

Page ~~524~~, Chapter 1, Table 8:

PSD applies GHG if:

2. The modification results in a GHG emissions increase **or** net emissions increase:

“and” not “or” (Sierra Research; WSPA – BACT SRC Members)

**Response E11:**

Staff agrees and has included revision.

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**Comment E12:**

Page ~~524~~, Chapter 1, Table 8:

PSD applies GHG if:

2a. **PTE**  $\geq$  75,000 TPY CO<sub>2</sub>e, AND

Delete “PTE”. The terms “emissions increase” and “net emissions increase” are defined, and do not always reflect a PTE. (Sierra Research; WSPA – BACT SRC Members)

**Response E12:**

The term Potential to Emit (PTE) is used in the language in 40 CFR 52.21(j)(2) for applying BACT to a new major stationary source. In addition, Potential to Emit is used in the definition for major stationary source in 40 CFR 52.21(b)(1)(i). To stay consistent with federal guidance, staff will keep PTE in the applicability description in Table 7 for a new source. However, staff will remove PTE from the description for modified sources in Table 7, and only use the terms emissions increase or net emissions increase since the term PTE is not used to determine emissions from a modified source in this section.

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**Comment E13:**

Page ~~524~~, Chapter 1, SCAQMD PSD Applicability for GHG:

SCAQMD PSD applicability should be determined following the applicable sections of the Code of Federal Regulation identified in this rule.

Yes. In fact most this preceding discussion could be eliminated in favor of this reference to the application regulations. That would minimize the potential for oversimplification and/or conflict. (WSPA – BACT SRC Member)

**Response E13:**

Proposed Part E was added to the Guidelines to summarize new BACT requirements for the PSD GHG program under 40 CFR 52.21 and SCAQMD Rule 1714. Proposed Part F is being introduced as the section that will contain the future GHG BACT listings that will be adopted following the procedures summarized in proposed Part E. The format extends the same practices that are used for LAER and MSBACT in Parts A, B, C and D of the Guidelines.

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**Comment E14:**

Page ~~524~~, Chapter 1, Contemporaneous Netting:

Contemporaneous netting is the process of considering all of the creditable emission increases and decreases that have occurred during the period beginning five years **before the proposed construction of the modification through the date that the emission increase from the modification occurs. When calculating the net emissions in Table 8 above for the PSD applicability, it must include all emission increases and decreases during this period.**

Use the phrase “net emissions increase”, not “net emissions”, to maintain parallel construction. (Sierra Research – BACT SRC Member)

**Response E14:**

Staff agrees and has included revision.

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**Comment E15:**

Page ~~535~~, Chapter 1, BACT Step 1: Identify All Available Control Options, Paragraph 3:

EPA has emphasized the importance of energy efficiency improvements. **The first category of energy efficiency improvement options includes technologies of processes that maximize the efficiency of the individual emissions unit. The second category of energy efficiency improvements includes the options that could reduce**

**emissions from a new greenfield facility by improving utilization of thermal energy and electricity that is generated and used on site.**

This is an accurate quote from EPA's guidance, but there is a lot of context missing. One has to be careful about crossing the line between establishing BACT for an emission unit, and using GHG emission reductions elsewhere at a facility to avoid (or lessen the stringency of) a BACT determination for an emission unit. I'd suggest deleting the highlighted language, and let us review the complete EPA guidance.

(Sierra Research – BACT SRC Member)

Delete in favor of a reference to the actual EPA guidance.

(WSPA – BACT SRC Member)

**Response E15:**

Staff agrees to simplify the language to focus the discussion on the BACT determination procedure. A reference to the EPA Guidance will be inserted.

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**Comment E16:**

Page ~~546~~, Chapter 1, BACT Step 4—Economic, Energy, and Environmental Impacts, Paragraph 2:

There are compelling public health and welfare reasons for BACT to require all GHG reductions that are achievable, considering economic impacts and other listed statutory factors. As a key step in the process of making GHG a regulated pollutant, EPA has considered scientific literature on impacts of GHG emissions and has made a final determination that emissions of six GHG endanger both the public health and the public welfare of current and future generations. Among the public health impacts and risks that EPA cited are anticipated increases in ambient ozone and serious ozone-related health impacts and risks that EPA cited are anticipated increases in ambient ozone and serious ozone-related health effects, increased likelihood of heat waves affecting mortality and morbidity, risked of increased intensity of hurricanes and floods, and increased severity of coastal storm events due to rising sea levels. With respect to public welfare, EPA cited numerous and far-ranging risks to food production and agriculture, forestry, water resources, sea level rise and coastal areas, energy, infrastructure, and settlements, and ecosystems and wildlife. The potentially serious adverse impacts of extreme events such

as wildfires, flooding, drought and extreme weather conditions also supported EPA’s finding.

I’m not convinced the language is appropriate here. One can make similar statements about criteria pollutants, but consideration of the adverse health impacts of those pollutants is not a part of a top-down analysis. EPA’s endangerment finding is the reason why a GHG BACT assessment is required; the discussion under Step 4 should address the environmental impacts of the candidate BACT options, and not the environment in which the source is proposed to be built. (Sierra Research – BACT SRC Member)

Recommend deletion of this paragraph as it seems it does not seem appropriate  
(LADWP – BACT SRC Member)

This opinion is out of place and does not belong in Step 4. EPA made an endangerment finding which is what triggers the potential consideration of GHG emissions under PSD.  
(WSPA – BACT SRC Member)

**Response E16:**

Staff has removed some of the detailed language in this section regarding adverse impacts, and staff has added a reference to the U.S. EPA’s Endangerment Finding. The section will still include instructions to evaluate environmental impacts as part of Step 4 of the Top Down GHG BACT process, but will state that detailed impacts can be found through U.S. EPA’s GHG website.

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**Comment E17:**

Page ~~557~~, Chapter 1, GHG Control Measures White Papers:

EPA has a series of technical “white papers” that summarize readily available information on control techniques and measures to reduce GHG emissions from specific industrial sectors. These papers provide basic technical information which may be useful in a BACT analysis, but they do not define BACT for each sector. The industrial sectors covered include:

- **Electric Generating Units (PDF) (48pp, 805k) EPA Contact: Christian Fellner (919-541-4003)**

Check all of the links below; they do not point to the BACT documents, but as a web page two levels higher. (Sierra Research – BACT SRC Member)

**Response E17:**

Staff agrees and has included revision.

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**BACT SCIENTIFIC REVIEW COMMITTEE**  
**CHARTER**

**Comment Charter1:**

**BACT SRC Charter**

We reiterate our request for membership on the Scientific Review Committee (SRC). The currently proposed charter for the SRC states that the “The BACT SRC shall consist of experts in the field of air quality who shall assist and advise SCAQMD staff”. We believe that BACT affects virtually every business regulated by the district and therefore the SRC should advice the SCAQMD board. (Radtech)

**Response Charter1:**

The BACT Scientific Review Committee (BACT SRC) was established as a standing committee by an action of the SCAQMD Governing Board on September 8, 1995. The BACT SRC was intended to enhance the public participation process with technical review and comments by a focused committee at periodic intervals, prior to the updates of the SCAQMD BACT Guidelines. CARB and U.S. EPA Region IX were each asked to designate representatives to the committee, and neighboring San Diego APCD was invited to participate. The balance of the committee was created by invitation of recognized experts from industry, consultants to industry, public utilities, suppliers of air pollution control equipment, academia and environmental advocacy groups. Whenever committee members are no longer able to participate or resign, SCAQMD seeks out an appropriate replacement to join the committee and are appointed by the Executive Officer. The proposed charter is consistent with the original operational intent of the BACT SRC. Ms. Rita Loof, Director of Environmental Affairs for Radtech has previously expressed her interest to SCAQMD staff in serving as a member of the BACT SRC and is on the list of interested parties for future consideration to be appointed to the BACT SRC.

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# Amend BACT Guidelines and Approve Charter for BACT Scientific Review Committee

Governing Board Meeting  
December 2, 2016

# Public Process

- **Held first public BACT Scientific Review Committee meeting on 5/11/16**
- **9/16/16 SSC meeting staff directed to hold second BACT SRC meeting held on 9/27/16**
- **Additional 30-day comment period provided on proposed amended BACT Guidelines with third BACT SRC meeting held on 11/9/16**
- **Comments addressed in Attachment G of Board Letter Package**
  - **Received 8 additional comment letters with total of 33 comments**
  - **Overall 139 comments received and addressed**
  - **For most comments staff agreed to revisions**

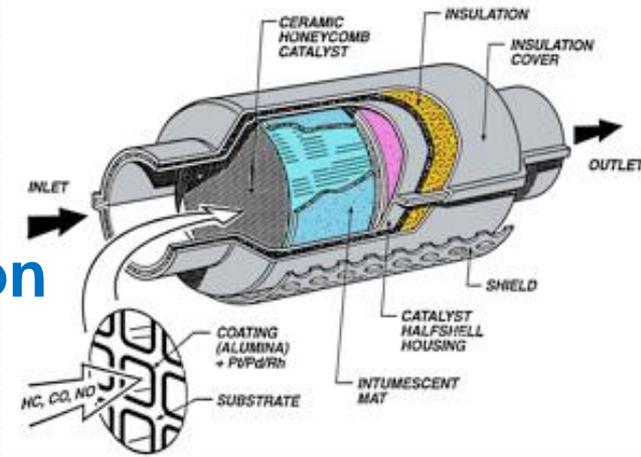
# Background

- **BACT required for new and relocated sources and for modifications that increase emissions**
- **SCAQMD required to periodically publish BACT Guidelines which were first published in 1983**
- **Major facilities - Federal CAA requirement for LAER implemented through BACT**
- **Minor Source - BACT determined in accordance with State law H&SC 40440.11 (SB 456, 1995)**
- **This report summarizes proposed updates to the BACT Guidelines**



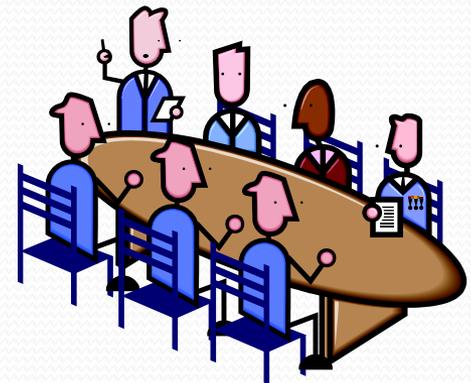
# Best Available Control Technology

- BACT is the most stringent emission limitation or control technique that is
  - achieved in practice, or
  - contained in a State Implementation Plan (SIP), or
  - technologically feasible and cost effective
- Technologically feasible and cost effective criterion for non-major sources allows for more flexible controls than LAER



# BACT Scientific Review Committee

- Established in 1995 to increase public participation
- Made up of members from industry, government agencies, trade organizations, academia and consultants
- Review and comment on the appropriateness of proposed new and more stringent BACT determinations
- Not to comment on past permitting decisions or change them
- Meets periodically
- Reviews revisions to BACT Guidelines



# Proposed Updates to BACT Guidelines

- **Overview, Parts A, B, C, D and new Parts E & F (GHG BACT) to maintain consistency with recent changes to SCAQMD rules, State and Federal requirements**
- **Intent is for amendments to reflect current requirements with future updates planned**
- **Meets criteria for MS BACT**
- **Comments received**
  - **Clarification, Corrections and make BACT Guidelines more User Friendly**

# Overview updates

- **Hyperlinks on Table of Contents**
- **Chapter 1**
  - T-BACT reference
  - BACT Docket info updated
  - Hyperlinks added for web pages and e-mail
- **Chapter 2**
  - Updated map of SCAQMD, Fig. 1
  - PM<sub>2.5</sub> added & SO<sub>x</sub> updated Table 1- Major Facility Threshold
- **Chapter 3**
  - CO attainment and BACT requirement
  - PSD Requirements
  - Reference to Rules 1420.1 and 1420.2
  - Chlorobromomethane added to ODCs, Table 2
  - PM<sub>2.5</sub> added Table 3- NSR Applicability, CO n/a



# Overview updates (cont'd)

- **Chapter 4**
  - PSD Rules section
  - BACT Docket info updated
  - Hyperlinks added for web pages and e-mail
- **Chapter 5**
  - Background and role of SRC
  - Link to list of current SRC members



# Major Sources – Parts A & B updates

## Part A – Policy & Procedures

- **Hyperlinks on Table of Contents**
- **Chapter 1**
  - **Federal PM 2.5 NSR and Rule 1325**
  - **Super “Compliant” Materials**
- **Other Considerations**
  - **Capture Efficiency**
  - **Pollution Prevention**
  - **Monitoring and Testing**
- **Clean Fuel Guidance – Electricity, Zero & Near-Zero technologies added. Fire suppressant pump ICE allowance**



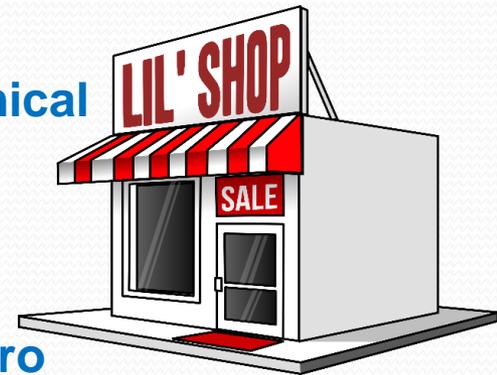
## Part B – LAER/BACT Determinations

- **Continue working with Engineering and Compliance to update listings**
- **Flare Oil and Gas Production**
- **IC Engine, CI Emergency with DPF**

# Minor Sources

## Part C – Policy & Procedures

- Chapter 1
  - Part D BACT Determinations adoption date clarification
  - Updated Cost Effectiveness values - Marshall & Swift Equipment Cost Index
  - Updated quarterly – no longer published in Chemical Engineering Magazine
  - Top-Down cost methodology
  - Link reference to EPA Control Cost Manual
  - Clean Fuel Guidance - Electricity, Zero & Near-Zero technologies added. Fire suppressant pump ICEs exempt
  - Updated BACT Update Process flowchart, Fig. 2
  - Same “Other Considerations” section as Part A
- Chapter 2
  - Super “Compliant” Materials
  - Other Considerations – same as Part A

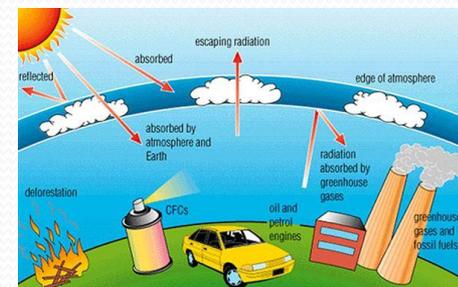


# Minor Sources (cont'd)

- **Part D – BACT Determinations**
  - **Hyperlinks on Table of Contents**
  - **Boiler**
  - **IC Engine, Stationary, Emergency**
  - **IC Engine, Portable**
  - **IC Engine, Stationary, Non-Emergency, Non-Electrical Generators**
  - **IC Engine, Stationary, Non-Emergency, Electrical Generators**
  - **Liquid Transfer and Handling – Gasoline station**
  - **Process Heater – Non-Refinery**
  - **Oil and Gas Production**

# Part E – Policy and Procedures for Facilities Subject to PSD for Greenhouse Gases (GHG)

- Regulation XVII applicability – Prevention of Significant Deterioration
- Facilities are subject to GHG BACT if:
  - Have potential to emit >75,000 tons/year of carbon dioxide equivalent (CO<sub>2e</sub>)
- Must be subject to PSD for a pollutant other than GHG - U.S. Supreme Court decision in Utility Air Regulatory Group v. Environmental Protection Agency, 134 S. Ct. 2427 (2014)
- EPA's PSD and Title V permitting guidance



# Part F – BACT Determinations for Facilities Subject to PSD for GHG

- **Work in Progress**
- **EPA Guidance emphasizes options that improve energy efficiency and possibly biomass**
- **Carbon Capture and Sequestration may be considered but likely cost prohibitive**
- **Potential impacted sources include:**
  - ✓ **Electricity Generation**
  - ✓ **Large industrial/commercial boilers**
  - ✓ **Cement industry**
  - ✓ **Refineries**
  - ✓ **Iron and Steel industry**

# List of Abbreviations & Index of Equipment Categories

- Included new or previously omitted terms
- Changed title to “List of Equipment Categories”
- Updated categories

# Proposed Charter for BACT Scientific Review Committee

- **Mission – Assist and advise SCAQMD staff in updating BACT Guidelines**
- **Goals – Provide technical expertise on proposed BACT updates through the public process**
- **Objectives**
  - **Meet periodically to provide verbal and written comments**
  - **Contribute experience, knowledge and promote discussion regarding proposed technologies**
- **Membership qualifications, composition and operational guidelines**
- **Term limits – 2 years**

# Issues

- **Why rush to update BACT Guidelines**
  - No update in 8 years; provide public and engineering with updated document
- **Transparency of BACT update process**
  - 3 BACT SRC meetings, 2 public comment periods
- **Role of BACT Scientific Review Committee**
  - Comment and advise, not approve
- **Permitting policy**
  - Outside scope of BACT Guidelines policy
- **Intent of the BACT Guidelines**
  - Per Rule 1303 to be periodically published with updated BACT determinations and policy

# Recommended Actions

- **Determine that proposed amendments to the BACT Guidelines are exempt from CEQA;**
- **Approve Proposed Amendments to BACT Guidelines; and**
- **Approve Proposed Charter for the SCAQMD BACT Scientific Review Committee that details the role and membership of the BACT Scientific Review Committee, which provides advice and input to SCAQMD staff on proposed new and more stringent BACT determinations and amendments to the BACT Guidelines.**